Using Digital Technology for Autonomous, Out-of-Class English Language Learning: The Influence of Teacher Support at a Japanese University

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Abstract

This thesis provides insights into the extent to which English language learners (ELLs) in Japan use digital technologies for language learning, and the role that teachers can play to best support their autonomous use of digital technologies beyond formal learning environments. In doing so, it shares findings on the influence of one English teacher’s course-based support for the out-of-class adoption of online tools for study purposes. It also explores factors that motivated or discouraged ELLs from using digital technologies for English language development.

This mixed method study was conducted at a women’s university in Japan between April 2014 and July 2015. Data were collected through three questionnaires, two sets of interviews and coursework generated during the teaching period. Questionnaire One was administered to 128 first-year students, and focused on their experiences of learning English using online tools prior to starting their university studies. Twenty-two of this cohort were students in my English writing course and agreed to participate in a 16-month longitudinal case study. In this course, I integrated elements designed to foster autonomous, out-of-class English language learning through digital technologies. Grounded in sociocultural theory, pedagogical decisions prioritised social interaction, primarily through students sharing their learning plans, actions and reflections online. During the 10-month course, the students wrote nine reports about their out-of-class English study and shared them in a Facebook group, where they received teacher and peer feedback and support. Questionnaires Two (end-of-course) and Three (six months post-course) explored how students’ use of online tools in English changed over time in response to teacher input during the course and the lack of input in the six months following the conclusion of the course. A smaller number of students agreed to participate in two rounds of interviews, the first after Questionnaire Two (six students) and the second after Questionnaire Three (five students). Quantitative data in this study are generally presented as descriptive statistics, with McNemar’s test used where relevant to test matched pairs for statistical significance. Interview analysis was done using open coding, then data sources were drawn together and interpreted through the lens of activity systems analysis (Engeström, 1987, 1991), which allowed students’ complex learning environments to be considered.

The findings suggest that students’ use of online tools was very limited within formal
English education prior to university and far from ubiquitous for learning outside of school. Despite this, all participants responded positively to the introduction of digital technologies in their university English course and chose to use them to work on their English skills outside of class during the course. This highlights an important role for teachers in supporting and guiding students in the use of digital technologies for autonomous language learning. Findings also indicated that interacting with classmates about out-of-class learning influenced students’ motivation and learning practices, emphasising the value of the teacher facilitating such interaction.

This study shows that it is certainly possible for language educators to foster autonomous learning practices and play a supportive role that leads to students willingly using digital technologies to develop their L2 skills outside of class. However, it also shows that long-term support may be needed for learners to make sustainable changes in autonomously using digital technologies for language learning. The need for support found in this study was echoed by a desire for it from learners. Therefore, the study recommends that teachers and institutions consider how support could be offered within their own contexts. While the findings represent the account of one teacher-researcher and the students in her teaching context, there is potential for them to resonate with those in other settings, so they may prove valuable to those who wish to examine how they can further support language learners.
### List of Figures

**Figure 2.1** A visual representation of Vygotsky’s (1978, p. 40) model of “a complex, mediated act” ................................................................. p. 14

**Figure 2.2** Pictorial representation of key concepts in Leontyev’s (1978) version of activity theory ................................................................. p. 20

**Figure 2.3** The activity of mastering a language, based on Leontyev’s (1978) activity theory framework ................................................................. p. 20

**Figure 2.4** Structure of a human activity system (adapted from Engeström, 1987, p. 78) ............................................................................................. p. 21

**Figure 2.5** Engeström’s (1999, p. 30) use of Vygotsky’s triadic model as “a triadic representation of actions.” ......................................................... p. 24

**Figure 2.6** A complex model of an activity system (Engeström, 1999, p. 31) ............................................................................................. p. 25

**Figure 3.1** Overview of the English Department’s writing program ................................................................. p. 63

**Figure 3.2** Data collection timeline ............................................................................................. p. 69

**Figure 3.3** Facebook exchange showing teacher effort to scaffold a student’s ability to operate a digital tool ................................................................ p. 79-80

**Figure 3.4** An example of teacher effort to support students’ use of digital technology as a language learning tool via Facebook ................................................................... p. 81

**Figure 3.5** An example of a reminder to students to post and comment in the class’s Facebook Group ...................................................................................... p. 82

**Figure 3.6** Interview transcription and translation overview ................................................................. p. 89

**Figure 4.1** Internet use in high school for English language classwork or homework by skill area (first-year English Department students, n = 128) ................................................................. p. 101

**Figure 4.2** Online tools students had used in English before starting university (first-year English Department students, n = 125-128) ...................................................................................... p. 104

**Figure 4.3** Online tools students had used in their L1 before starting university (first-year English Department students, n = 125-128) ...................................................................................... p. 105

**Figure 4.4** Reasons students were resistant towards using online tools in the English writing course ...................................................................................... p. 106

**Figure 4.5** The activity of learning English in high school ...................................................................................... p. 107

**Figure 4.6** The relationship between rules and object in the activity of studying English in high school in Japan ...................................................................................... p. 109

**Figure 4.7** The rule-object tension in Rei’s activity of studying English in high school ...................................................................................... p. 110

**Figure 4.8** The relationship between the subject, community and tools in the activity of studying English in high school in Japan ...................................................................................... p. 111

**Figure 4.9** The influence of an out-of-school community member on Rei’s English development ...................................................................................... p. 115

**Figure 4.10** The activity of learning English in high school as represented in Chapter Four ...................................................................................... p. 120

**Figure 5.1** The activity of learning English at Emiha University ...................................................................................... p. 120

**Figure 5.2** The activity of learning English at Emiha University in a course designed to foster autonomous learning with online tools ...................................................................................... p. 122

**Figure 5.3** Pre-course use of online tools in English (longitudinal case study participants, n = 22) ...................................................................................... p. 124

**Figure 5.4** Pre-course and post-course experiences using online tools in English (longitudinal case study participants, n = 19-22) *p < 0.05 ...................................................................................... p. 125
Figure 5.6  End-of-course self-reports on online tool use (pre-course and end-of-course comparison of longitudinal case study participants, n = 22) ........................................................................................................... p. 128
Figure 5.7  The role of the community and course-based tools in overcoming contradictions ............................................................................................................. p. 131
Figure 5.8  Facebook thread showing teacher and student interactions about Skype .................................................................................................................. pp. 133-134
Figure 5.9  Facebook thread showing teacher effort to help match an online tool with a learning object and scaffold operational skills ........................................ p. 135
Figure 5.10  Chika’s English-related activity system during the writing course … p. 144
Figure 5.11  Activity system of a student resistant to changing personal study habits (Shizuka) .............................................................................................................. p. 145
Figure 6.1  End-of-course and post-course experiences using online tools in English (longitudinal case study participants, n = 19-22) *p < 0.05 .............. p. 149
Figure 6.2  Pre-course and post-course experiences using online tools in English (longitudinal case study participants, n = 19-22) *p < 0.05 .............. p. 150
Figure 6.3  Post-course self-reports on online tool use (Teaching Period and six-month-post-course comparison, longitudinal case study participants, n = 22) .............................................................................................................. p. 150
Figure 6.4  Hiromi’s English learning activity system in the six months after the writing course .............................................................................................................. p. 157
Figure 6.5  Emiri’s English learning activity system in high school .................. p. 160
Figure 6.6  Emiri’s combined formal education/external activity system during the writing course .............................................................................................................. p. 161
Figure 6.7  Emiri’s English learning activity system in the six months after the writing course .............................................................................................................. p. 165
Figure 7.1  Factors that motivate students to use online tools in English: Collected first week of university (first-year English Department students, n = 120-123) ...................................................................................................................... p. 171
Figure 7.2  Factors that motivated students to use online tools in English during the writing course (longitudinal case study participants, n = 22) .............. p. 172
Figure 7.3  Pre-course, end-of-course and post-course comparison of social factors that motivated students to use online tools in English (longitudinal case study participants, n = 21-22) .............................................................................................................. p. 173
Figure 7.4  Factors that deter students from using online tools in English: Collected first week of university (first-year English Department students, n = 118-122) .............................................................................................................. p. 184

List of Tables

| Table 3.1 | Participation Breakdown by Data Collection Tool .................. pp. 71 |
| Table 3.2 | Summary of Areas Covered in Questionnaire One .................... p. 72 |
| Table 3.3 | Summary of Areas Covered in Questionnaires Two and Three ...... p. 73 |
| Table 3.4 | English Report Template .......................................................... p. 77 |
| Table 5.1 | Pre-Course and End-of-Course Use of Online Tools in English (Longitudinal Case Study Participants, n = 22) .......................................................... p. 127 |
| Table 6.1 | End-of-Course Intended Tool Use and Post-Course Actual Tool Use Longitudinal Case Study Participants, n = 20-22) .................................................. p. 151 |
| Table 8.1 | 2018 Centre Test: Examinee Numbers by Subject .................... p. 212 |
| Ap. Table 1 | Pre-Course Use of Online Tools in L1 and English (First-Year English Department Students, n=125-128) .................................................. p. 284 |
Ap. Table 2  Pre-Course Use of Online Tools in L1 and English (Longitudinal Case Study Participants, n =22) ......................................................... p. 285
Ap. Table 3  End-of-Course Experiences Using Online Tools in English (Longitudinal Case Study Participants, n =19-22) ................................. p. 286
Ap. Table 4  Post-Course Experiences Using Online Tools in English (Longitudinal Case Study Participants, n =20-22) ................................. p. 287
Ap. Table 5  End-of-Course Intentions to Use Online Tools for Future English Study (Longitudinal Case Study Participants, n = 22) ......................... p. 288
Ap. Table 6  Factors that Motivate Students to Use Online Tools in English (First-Year English Department Students, n=120-123) ............................. p. 289
Ap. Table 7  Pre-Course, End-of-Course and Post-Course Comparison of Social Factors that Motivated Students to Use Online Tools in English (Longitudinal Case Study Participants, n = 21-22) ......................... p. 290
Ap. Table 8  Factors that Deter Students from Using Online Tools in English (First-Year English Department Students, n=119-122) ............................. p. 291
Table of Contents

Acknowledgements........................................................................................................... i
Abstract............................................................................................................................. iii
List of Figures ..................................................................................................................... v
List of Tables ...................................................................................................................... vi
Certificate of Authorship ..................................................................................................... 1

Chapter One: Introduction................................................................................................. 2
  1.1 The Beginning of the Story ......................................................................................... 2
  1.2 English Education at Emiha University ................................................................. 3
  1.3 Looking Beyond Classrooms ................................................................................. 5
  1.4 Research Aim and Questions ................................................................................... 6
  1.5 Significance of the Study ......................................................................................... 7
  1.6 Glossary of Key Terms ............................................................................................ 9
  1.7 Organization of the Thesis ...................................................................................... 10

Chapter Two: Literature Review ......................................................................................... 12
  2.1 Introduction .............................................................................................................. 12
  2.2 Theoretical Framing .................................................................................................. 12
      2.2.1 Social Constructivism .................................................................................... 13
      2.2.2 Communities of Practice ............................................................................ 15
      2.2.3 The Influence of Sociocultural Theory on SLA ........................................ 17
      2.2.4 Activity Theory ......................................................................................... 19
  2.3 Autonomous Learning in SLA ................................................................................ 30
      2.3.1 Empirical Studies on Autonomous Learning in Japan .................................. 33
  2.4 Motivation Research in SLA ................................................................................... 35
  2.5 Digital Technology as an Educational Tool ........................................................... 39
      2.5.1 The Net Generation and Digital Natives ....................................................... 40
      2.5.2 Digital Technology in Education ................................................................. 43
      2.5.3 Using Digital Technology for Language Learning ..................................... 44
  2.6 Implications for the Study ....................................................................................... 50
  2.7 Chapter Conclusion ................................................................................................. 52

Chapter Three: Research Methodology............................................................................ 53
  3.1 Introduction .............................................................................................................. 53
  3.2 Guiding Methodological Principles and Research Design ..................................... 53
      3.2.1 Case Study Methodology .......................................................................... 57
  3.3 Research Setting ...................................................................................................... 59
      3.3.1 A Historical Overview of English Language Education in Japan ................ 59
      3.3.2 The Research Site ..................................................................................... 62
  3.4 Participants ............................................................................................................. 64
      3.4.1 Participants in Questionnaire One ................................................................. 64
      3.4.2 Case Study Participants .............................................................................. 65
  3.5 Position of the Researcher ....................................................................................... 68
  3.6 Data Collection ....................................................................................................... 69
      3.6.1 Questionnaires ............................................................................................ 71
      3.6.2 Semi-structured Interviews ......................................................................... 73
      3.6.3 English Reports and the Class Facebook Group ......................................... 76
      3.6.4 The Teaching Period .................................................................................. 82
  3.7 Preparing Data for Analysis ................................................................................... 86
Chapter Eight: Discussion ................................................................. 191
  8.1 Introduction ................................................................................. 191
  8.2 Autonomy as a Collaborative Journey ....................................... 191
    8.2.1 The Teacher’s Role in Establishing Planning-Action-Reflection Cycles .............................................. 193
    8.2.2 Teachers as Social Connectors and Community Builders .............................................................. 197
  8.3 Motivation as a Multifaceted, Fluid Construct ................................ 200
  8.4 Educational Use of Digital Technologies as a Learned Skill ........... 201
    8.4.1 Rejecting “Digital Native” and “Net Generation” Ideologies ............................................................. 202
    8.4.2 Learners as Tech-Comfy, Tech-Savvy and Tech-Resistant ................................................................. 203
    8.4.3 Facilitating the Use of Digital Technologies for Language Learning .................................................. 205
  8.5 Systemic Constraints on Learners’ Use of Digital Technologies ......... 208
  8.6 Chapter Summary ...................................................................... 215

Chapter Nine: Implications and Conclusions ....................................... 217
  9.1 Introduction ................................................................................. 217
  9.2 Returning to the Research Questions .......................................... 217
  9.3 Key Implications ........................................................................ 222
    9.3.1 Implications for Institutions and Teachers ......................................................................................... 222
    9.3.2 Implications for Students ................................................................................................................... 225
  9.4 Limitations .................................................................................. 226
  9.5 Avenues for Future Research ....................................................... 227
  9.6 Conclusions ............................................................................... 229

References .......................................................................................... 231

Appendices ......................................................................................... 257
  Appendix A: Questionnaire One (English Version) ......................... 257
  Appendix B: Questionnaire Two (English Version) ......................... 263
  Appendix C: Questionnaire Three (English Version) ....................... 269
  Appendix D: Sample of Guiding Questions for Interview One ............ 274
  Appendix E: Sample of Guiding Questions for Interview Two .......... 277
  Appendix F: Overview of Tasks Added to the Writing Course Syllabus .. 280
  Appendix G: Raw Data for Figures and Tables with Incomplete Response Items ............................................. 283
  Appendix H: Long Interview Excerpts ............................................. 292
  Appendix I: Interview Coding Samples .......................................... 300
  Appendix J: Coding for Narrative Construction ............................... 305
  Appendix K: Ethics Approval ............................................................ 308
Certificate of Authorship

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person nor material which to a substantial extent has been accepted for the award of any other degree or diploma at Charles Sturt University or any other educational institution, except where due acknowledgment is made in the thesis. Any contribution made to the research by colleagues with whom I have worked at Charles Sturt University or elsewhere during my candidature is fully acknowledged. I agree that this thesis be accessible for the purpose of study and research in accordance with the normal conditions established by the Executive Director, Library Services or nominee, for the care, loan and reproduction of theses.

Signature: (Louise Ohashi)  
Date: March 2019
Chapter One: Introduction

1.1 The Beginning of the Story

Many stories remain untold, with the discoveries that would stem from them unmade. Those that appear in this thesis would likely rest among them had it not been for an article that piqued my interest in the early stages of my doctoral studies. Firth (2012) wrote:

For too long, applied linguists and teacher education have been overly and exclusively preoccupied with the language classroom, with the result that our understandings of competence are inevitably limited and shaped by the institutional environment where teachers, lesson plans, pedagogy, etc., are primary. What happens outside classrooms remains, mystifyingly, terra incognita for most language teachers and applied linguists. (p. 10)

I had been teaching English for around 15 years when I read those lines and found they rang true for me. My teaching practices and research interests had started leaning towards what happened beyond classrooms, but I had little idea of the language learning practices that my students engaged in beyond their assigned homework. Firth’s work reminded me of the fact that influences on my students’ learning went far beyond their classrooms and coursework, and that this was an area that was underexplored in my field—one that I could contribute to through doctoral work.

At the time, I was teaching in the English Department of Emiha University, a private women’s university in Japan. I scrutinized my teaching context, thinking from my dual positions of teacher and researcher, wondering how I could best contribute to my students’ English development and my field at large. In Japan, there are relatively few naturally occurring opportunities for students to use English outside of class, yet access to digital technologies, which open the door to countless opportunities for English development, is widespread. Students had devices and Internet access but what were they doing with them? I wondered if they were using these powerful tools as language learning resources and if they knew how to effectively manipulate them. Would they choose to adopt them more fully outside of class if given support? As both an educator and researcher, I felt these areas deserved attention. Prior to beginning this study, I had investigated how students used a range of digital technologies for English study but realized that my research tended to focus on teacher-selected tools to complete teacher-assigned tasks. A

1 A pseudonym
review of Japan-based literature showed that many others also followed this pattern. I wanted to know more about what students were choosing to do outside of their formal studies to contribute to their English language learning and how their practices might change if a teacher guided them towards using digital technology for autonomous, out-of-class learning. Thus, this research journey began.

1.2 English Education at Emiha University

This study was conducted at a private women’s university in a large Japanese city, a setting that shares many commonalities with other higher education institutions throughout the country. When students begin university in Japan, they have generally studied English for at least six years as part of their secondary schooling and some have studied it from an earlier age. In the future, most students will have studied English for at least 10 years by the time they enter university due to 2014 government reforms that mandated English lessons from the third grade of primary school (Japan MEXT, 2014b). However, at the time of this study, university students who had learnt English before starting secondary school were the exception rather than the rule.

The study began in 2014 and at the time, the English Department had approximately 520 undergraduate students across four year-levels. In their fourth year, students were required to write a 5,000-7,000-word graduation essay in English and/or share their research in an academic presentation and needed sufficient English language skills to complete these arduous tasks. Furthermore, many hoped to use English in their careers after graduating. This study primarily focuses on students’ first year of university, the part of their degree which offered the greatest in-class support for English language skill development. At that stage students were required to take four English-language subjects that met weekly, amounting to 168 hours of compulsory English instruction per year. From the second year onwards, the required classes dropped further and students had fewer opportunities to use English in class unless they enrolled in the limited number of electives that were available or were accepted into a special program that was reserved for a small percentage of highly ranked students.

To enhance students’ opportunities outside of class, the university provided support in three main ways. First of all, there was a self-access learning centre (SALC). On weekdays, students could drop in without a reservation for ungraded, informal classes
which were held approximately 10 times per week. The main objective of most of the classes was to provide students with the opportunity to work on specific skills, with most focusing on discussion skills but some covering other areas such as exam-taking strategies for the TOEFL (Test of English as a Foreign Language). When classes were not being held, students could talk with the reception staff in Japanese or English about their study needs and get advice about the centre’s facilities. They could use computers and borrow learning materials, choosing from a wide range of English DVDs, CDs, and books. They could also attend special events, such as seasonal parties and presentations by guest speakers. Secondly, students could get advice on their English essays from graduate students who volunteered their services in the library. The third method of support offered was language-learning software which was available through the computer rooms, with some accessible through remote log-in off campus. Students received direct instruction on how to use some of the software and could ask support staff for assistance with other types.

While some students made use of the support offered, there was evidence that showed it was under-utilised. For example, teachers periodically held discussions with just a handful of participants in the SALC, and graduate students sometimes spent their time in the library with no one to guide them. Although reception staff reported that my SALC classes had a high number of attendees, most weeks this amounted to no more than 10 students, so estimates of weekly attendees across all classes are not high. Spikes in attendance occurred when teachers sent their students to the SALC as a homework task, but this was not done uniformly and generally resulted in students attending just once rather than leading to long-term use. On the surface this appears to indicate a lack of interest, but anecdotal evidence from students in the years I worked at the site suggest that it was also due to schedule clashes and nervousness about attending face-to-face sessions with teachers and students they did not know. This was particularly off-putting in the SALC, as some students feared being unable to keep up with more proficient students. Furthermore, while the software provided by the university to support learners was used, reports from the program coordinator suggested that most usage was for classwork or assigned homework rather than self-directed learning.

As an educator at the research site, I wanted to provide learners with additional opportunities and felt that an effective way to do this was to support their use of web-based digital technologies for autonomous, out-of-class learning. However, before my
study, little was known within the English Department about students’ pre-university experiences with using these technologies for English study or their willingness to embrace them at tertiary level. Research into students’ use of digital technologies would provide greater understanding of their learning practices and if I took steps to foster learners’ out-of-class use of digital technologies for English learning purposes and systematically researched the impact of doing so, the findings could be used both to give feedback to the research site and to inform educators who are interested in providing this type of support. Therefore, a research plan that addressed these areas was formulated.

1.3 Looking Beyond Classrooms

Given the limited opportunities available to use English in class, both at the research site and more generally in the Japanese tertiary sector, there is a need for language learning to be extended beyond the classroom. However, as Japan is not a country where English is widely used, naturally occurring opportunities for students to use it in their daily lives are relatively uncommon. Japan remains a largely homogenous society, with the latest census statistics showing that non-Japanese residents make up only 1.7% of the population (Japan Ministry of Internal Affairs and Communication, 2018). Given the low proportion of foreign residents and the fact that not all of them are likely to be English speakers, the majority of students have little need or opportunity to interact with others face-to-face in English in their daily lives. Even in major cities like Tokyo, which has higher concentrations of the nation’s foreign residents and tourists, the prevalence of English at the time of the study was relatively low.

Yet English was not completely missing from Japanese society when this study took place. For example, foreign television programs that were originally recorded in English, such as the news and movies, could be watched in English by using a bilingual setting that was available on many televisions, and there were a number of English language programs on the national broadcaster, NHK. Other places that students could access English in their daily lives included trains, as announcements were often made in Japanese and English, and restaurants, as some menus were bilingual. Furthermore, English was used in advertising and songs, sometimes in internationally-recognised ways, and other times in ways unique to Japan. However, it could be argued that the real door to English could be found in students’ pockets and homes. Digital technologies have been an integral part of daily life in Japan for many years, and when tapped into appropriately, smartphones,
computers and other web-capable devices can offer students an almost limitless range of opportunities to integrate English into everyday life.

A major benefit of modern digital technology, particularly web-based technology, is that it offers multimodal learning opportunities that allow engagement with English for a wide range of purposes. Furthermore, mobile devices, such as smartphones, provide opportunities for anywhere, anytime learning (Dudeney, Hockly, & Pegrum, 2014) and have the potential to facilitate “seamless learning” between formal and informal contexts (Looi & Wong, 2013). In the years leading up to the study, my observations of university students’ access to web-based devices showed that at least for smartphones, ownership rates were near ubiquitous and access to other web-capable devices was common. From my perspective as an educator, it seemed that the most widely accessible way for students to study and use English outside of class was through web-based digital technology.

Japan has a strong reputation as a technological leader, with companies like Sony and Nintendo known throughout the world, and it is recognised as digitally-connected (Gobel & Kano, 2014), so it may be expected that the use of digital technologies in education is widespread. However, the years of teaching I had done before conducting this study showed me that while most university students owned a smartphone, many began their tertiary education unfamiliar with how this potential in their pockets could be used for their English development. In the lead up to this study, blackboards and chalk were more commonly seen in classrooms than devices such as tablets or laptops, and the conceptualisation of students as tech-savvy “digital natives” who grew up “fluent” in technology with a thirst to use it in their education (Prensky, 2001; 2005-2006) was questionable and worthy of further investigation.

1.4 Research Aim and Questions

This Japan-based study was conducted to investigate English language learners’ (ELLs) use of digital technologies, focusing on their use of online tools, and examine the role teachers can play in fostering students’ use of them for autonomous, out-of-class language learning. The overarching aim of the study was to develop a deeper understanding of how to best support students’ autonomous use of digital technologies for English language learning beyond their formal learning environments. The following four research questions guided this study:

6
1. To what extent do ELLs in Japan use digital technologies to support their language learning?
2. How does teacher promotion of digital technologies influence ELLs’ autonomous, out-of-class learning practices?
3. What are ELLs’ perceptions of digital technologies before and after teacher-led promotion of their use?
4. What motivates or discourages ELLs in Japan from using digital technologies for autonomous, out-of-class English language learning?

These questions were informed by and considered through the lenses of sociocultural theory and activity theory, which will be introduced in more detail in Chapters Two and Three. The study addresses the aim and questions through analysis of data that were collected over a 16-month period which started in students’ first week of university, continued through a two-semester English writing course, and culminated at the end of a six-month follow-up period.

1.5 Significance of the Study

Conducting this study in Japan was important for several key reasons. Firstly, it is imperative to extend knowledge on the breadth of tech-based learning practices of ELLs in this country. There is currently an abundance of research available on the use of digital technologies in English language learning, and even on the more focused area of English language education in Japan, but the majority of it is conducted solely within teacher-led contexts, using a single or very limited number of tools which were chosen by the teacher to address course-based goals. For example, Dizon (2016) reported on the use of timed blogging for improving writing fluency and Davies (2015) investigated the use of a voice microblog for out-of-class speaking practice. These types of studies make significant contributions to knowledge on the suitability of particular tools for meeting defined pedagogical goals, but they report on actions that students took in response to specific tasks designed or controlled by teachers. The quote from Firth at the beginning of this chapter shows the need for more research on what students are doing beyond this, a need to understand the depth and breadth of out-of-class learning practices; what is still “terra incognito” (2012, p. 10).

Secondly, it was important to conduct it to further investigate the influence that
pedagogical support can have upon the way students perceive and use digital technologies as learning tools. As noted above, there are numerous studies that look at the use of particular tools and many of these studies explore students’ attitudes towards those tools, but the net needs to be widened to consider digital technology more broadly. This study examines students’ perceptions and use of digital technologies at different stages of their education so it will contribute to what is known about how formal learning can influence out-of-class learning practices and explore some of the long-term influences teacher support can have on students. By focusing on ELLs’ out-of-class use of digital technology, exploring how teachers can use formal educational contexts to support students’ out-of-class learning, and examining the long-term impact this support has on students’ learning practices, this study may offer a small but valuable contribution to the fields of L2 learning and teaching.

The third main reason that this study was important to conduct is that the findings may extend knowledge on what motivates learners to use digital technologies in ways that can lead to the development of their English language skills and identify obstacles that cause them to reject or overlook such tools. Exploring this combination of elements in the Japanese context is valuable as not enough is known about factors that motivate and deter learners here from engaging with digital technologies for language learning, which means educators have little guidance on how to effectively support their learners in making the most of the affordances these tools have to offer for language acquisition. In recent years, there has been a growing number of small-scale studies in Japan that report on learners’ motivation to use certain types of digital technologies (Bolliger, Mills, White, & Kohyama, 2015) and others that have explored areas such as students’ willingness to learn through online courses (Mehran, Alizadeh, Koguchi, & Takemura, 2017). However, more research that explores digital technology from a broader perspective is needed and this study can contribute towards addressing that gap.

The Japanese context is the main focus of this study so it is expected that the findings will be of most benefit to practitioners and researchers here, but it may also be beneficial for those outside of Japan as the context shares similarities with other foreign language learning contexts. For example, the average student in Japan who does not encounter English in daily life in their physical world is in some ways similar to students in other countries who are studying a language in a context that does not give them face-to-face access to it outside of class. One of the major benefits of web-based digital technology
for language learners is that it opens up a world of resources, both human and material. Although not all languages are used as widely online as English is, and not all learners have the same level of access to the Internet and web-capable devices as the learners in this study, using digital technology to develop English skills in Japan is not completely dissimilar to using it to build skills in English or another language in a different country. Therefore, it is possible that this study may inform research, theory, and practice both in Japan and abroad.

1.6 Glossary of Key Terms

This section outlines key terms that are used throughout this thesis. Some terminology connected to my field of study is problematic due to the breadth of ways in which terms can be interpreted and the social and political implications that they have come to hold. However, many of these terms are used widely in the field of English language learning so are adopted in this thesis and their use is limited to the ways listed below.

**L1:** Someone’s first language; a language acquired from infancy.

**L2:** Someone’s second or subsequent language (primarily used to refer to English in this study); this is generally acquired after infancy.

**SLA:** Second language acquisition—the process of learning an L2 and the academic field of study that relates to this.

**ELLS:** English language learners—people who study English as their L2 through formal education or informal means.

**Online tools:** Websites, apps and other tools that are downloaded from or used via the Internet.

**Digital technolog(ies):** Broadly defined to refer to digital hardware (e.g. computers, smartphones) and the use of software and digitised materials that can be accessed through them. The term is mainly used in reference to web-based technology use in this study.

**Autonomous learning:** Learning that is done of someone’s own volition (Deci, 1996; R. M. Ryan & Deci, 2000), at least in part, but not necessarily alone or without guidance (Nunan, 2003; Blidi, 2017). Note: There are diverse understandings of this term and the simplified definition provided here was reached after drawing on a wide range of literature. A fuller discussion and explanation of this term is provided in Chapter Two.

**Out-of-class:** Anything that occurs beyond the formal classroom environment. This partially aligns with a definition by Benson and Reinders, which states, “‘Out-of-class’
and ‘out-of-school learning’ are often used to describe non-prescribed activities that students carry out independently to broaden their knowledge of a subject” (2001, p. 9). Usage in this study broadens the term further to include all learning tasks that take place beyond the classroom, including prescribed activities. When the focus is on non-prescribed activities, this term is used in conjunction with the term ‘autonomous’.

1.7 Organization of the Thesis

This chapter has briefly introduced the reasons this research was conducted, the research aim and questions, and the contributions it could make to the fields of L2 learning and teaching. Chapter Two presents a literature review that explores the theoretical frameworks that underpin the study and critically examines the most relevant empirical work. It explores the meaning of autonomous learning, introduces salient motivational theories, examines the use of digital technology as an educational tool and outlines the implications of the review for this study. In Chapter Three, the mixed methods case study methodology of the research project is outlined, the research setting, participants and data sources are introduced, and the data analysis methods, including the application of activity theory (Engeström, 1987, 1991), are explained in detail. The chapter also considers steps that were taken to obtain trustworthy data in an ethical manner.

Chapters Four to Six present key findings in chronological order, using statistical and qualitative data. Chapter Four focuses on students’ pre-university (mainly high school) experiences, Chapter Five on their first two semesters of university, and Chapter Six on the six-month period that directly followed. In these chapters, students’ use of digital technology is historically contextualized. This historical situating of learning is a key aspect of activity theory, which is an analytical framework adopted in this study that can be used to examine the outcomes that multiple interrelated nodes have on groups and individuals over time. The final findings chapter, Chapter Seven, centres on motivation; something that is an element of the previous three chapters but becomes the focal point of analysis here.

In Chapter Eight, four major areas that extend from the findings are discussed at length. This chapter proposes that autonomous learning is a collaborative journey, positions motivation as a multifaceted, fluid construct, explores the notion of educational use of digital technologies as a learned skill, and highlights some systemic constraints on
learners’ use of digital technologies. Lastly, in Chapter Nine, the discussion returns more
directly to the research questions, acknowledges some limitations of the study and notes
the key contributions and implications for institutions, teachers and future research.
Chapter Two: Literature Review

2.1 Introduction

This chapter elaborates on the rationale for the project and its theoretical grounding by introducing the key theories, knowledge and empirical studies that underpin it. It begins by providing the theoretical framing for the study, introducing sociocultural theory, with a focus on social constructivism and communities of practice. Activity theory, which informed some data qualitative data analysis in this study, has its roots in sociocultural theory so it is also introduced in this section, with more detailed information about its methodological role provided in Chapter Three. After that, the multi-faceted concept of autonomous learning is examined and motivation research in SLA is briefly outlined. In this study, I took on the dual role of teacher and researcher, so introducing sociocultural theory, conceptions of autonomous learning, and motivational theories is important because they underpinned my pedagogical stance and influenced the practices I employed in my role as a teacher.

After examining theoretical perspectives, the chapter turns to the use of digital technology as a learning tool, using empirical studies to show how and why it has been used in higher education and language learning, and questioning the notion of the “digital native”.

2.2 Theoretical Framing

This study is grounded in sociocultural theory, which was initially developed by the Russian psychologist Lev Semyonovich Vygotsky and his colleagues in the 1920s and 1930s and brought to the West decades later through English translations that were published to further disseminate the most important aspects of his work (Vygotsky, 1962, 1978, 1986). These books have become foundational works for learning theory and language development, and sociocultural theory has been taken up widely in foreign language education (see for example de Guerrero & Villamil, 2000; Firth, 2012; Firth & Wagner, 1997; Fujita, 2002; Gedera, 2012; John-Steiner & Mahn, 1996; Lantolf, 2000; Lantolf & Johnson, 2007; L. Lee, 2009; Yeh, Lo, & Huang, 2011). Three components that stem from sociocultural theory will be introduced in this section: social constructivism, communities of practice and activity theory.
2.2.1 Social Constructivism

A key development of sociocultural theory in education is social constructivism, which emphasises the importance of social interaction for learning. In Vygotsky’s view, “the development of thinking is not from the individual to the social, but from the social to the individual” (1986, p. 36) so social contact is vital for development. He proposed that learning takes place on two levels, beginning with social interaction then becoming internalised. According to Vygotsky:

> Every function in the child's cultural development appears twice: first, on the social level, and later, on the individual level; first, between people (interpsychological) and then inside the child (intrapsychological). This applies equally to voluntary attention, to logical memory, and to the formation of concepts. All the higher functions originate as actual relationships between individuals. (1978, p. 57)

Lantolf, Thorne and Poehner (2015) concur that cognitive functions begin as social, get internalized, then become cognitive resources, and note that this “creative appropriation occurs through exposure to, and use of, semiotic systems such as languages, textual (and now digital) literacies, numeracy and mathematics, and other historically accumulated cultural practices” (p. 211). This refers to the notion that knowledge acquisition and development are mediated through socially situated artefacts that aid the individual in their learning activities. Figure 2.1 below, based on Vygotsky’s (1978) work, shows the key elements of this concept. The subject refers to the person who is doing the activity, the object refers to what motivates activity, and the mediating artefact (tools, signs, symbols) refers to what is used by the subject to reach their object. As Vygotsky believed people learn through social interaction, the mediating artefacts in his model refer to direct interaction with others or interaction with tools, signs or symbols that were created by others. Examples of mediating artefacts include tangible objects like books and digital devices, but as shown in the examples above from Lantolf, Thorne and Poehner (2015), the term also encompasses abstract objects.
When subjects (e.g. learners or students) work towards attainment of their objects, they interact with others or use objects that were produced by others, and these mediating artefacts help them on their way. This is important for educators to understand as it allows them to plan the types of support to offer in order to scaffold learning tasks for students. The term scaffolding, which is now widely used in educational pedagogy, originated with Wood, Bruner, and Ross in 1976 when they reported on interaction between children and adults who took on the role of tutors to help the children with a problem-solving task that was beyond the children’s capabilities. They defined scaffolding as a “process that enables a child or novice to solve a problem, carry out a task or achieve a goal which would be beyond his [or her] unassisted efforts” (Wood et al., 1976, p. 90). In their view:

This scaffolding consists essentially of the adult “controlling” those elements of the task that are initially beyond the learner’s capacity, thus permitting him [or her] to concentrate upon and complete only those elements that are within his [or her] range of competence. (Wood et al., 1976, p. 90)

To scaffold tasks effectively, teachers need to understand students’ zone of proximal development (ZPD). Vygotsky argues that when attempting something that they cannot already do, development will occur if people are given support and tasks that fall within this zone, which he defined as:

The distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers. (1978, p. 86)

This suggests that everyone has an actual level of development and a potential one that can be reached if properly guided. In an educational context, this means there are tasks learners can do, can do with help, and cannot do. The “can do with help” (ZPD) zone is the one that Wood et al. (1976) target for scaffolding, as it is the zone that teachers can use to help learners extend their development.
Social constructivism centralises the role of social interaction in teaching and learning, both in formal and informal settings. One way this can be accomplished is through communities of practice, which are explored below.

2.2.2 Communities of Practice

A sociocultural concept which has been taken up widely within SLA pedagogy that relates to the ZPD and scaffolding is communities of practice (CoPs). The CoP framework was originally developed by Lave and Wenger (1991) in their anthropological study of workplaces and an alcoholics anonymous group. They noticed that within these contexts people had different roles, such as apprentice and master. At the crux of their work is the notion that people learn through situated practice, which involves watching others and participating in activities in groups. To be successful, these groups need people with different levels of experience, from novices to experts. The novices, referred to as apprentices, learn from the experts, known as the masters, and from others who are in the process of becoming masters. When new people with limited experience join a group, they are on the periphery so have the chance to watch others to learn what to do. Later, they draw on this knowledge when trying to do tasks by themselves, and move from the periphery towards the centre of the community. As Lave and Wenger note:

Newcomers’ legitimate peripherality provides them with more than an “observational” lookout post: It crucially involves participation as a way of learning—of both absorbing and being absorbed in—the “culture of practice.” An extended period of legitimate peripherality provides learners with opportunities to make the culture of practice theirs. (1991, p. 95)

In other words, CoPs are successful not because a master teaches apprentices, but because apprentices have the opportunity to observe others who are at different stages of development within the community and see how they do things. Through this they gradually gain an understanding of what is required of people at different levels, and as they have access to exemplars (in the form of finished products or masters and more advanced apprentices) they learn what is required of senior members.

The CoP framework has had a significant influence on L2 educational theory and practice. This is because CoPs exist in all facets of society, including schools, with Wenger, McDermott and Snyder noting, “We all belong to a number of them—at work, at school, at home, in our hobbies. Some have a name, some don’t. Some we recognize, some remain largely invisible” (2002, p. 5). This focus on their widespread but sometimes
invisible existence can help educators begin identifying and using them more advantageously within schools and students’ wider learning communities. Schools are places where teachers are often viewed as the masters who teach their less capable students, but they are also communities in which younger or academically weaker students can learn from older or more advanced students. The benefits of actively working within a CoP framework in educational institutions has been explored by numerous teachers in diverse learning environments (Ahlund & Aronsson, 2015; C. K. Chang, Chen, & Li, 2008; Lamb, 2009; Lord & Harrington, 2013). For example, Lord and Harrington (2013) showed how the CoP model could be applied in a project with Spanish learners from two American universities that used podcasting together. Furthermore, in an Indonesian study, Lamb (2009) described the private language institute one of the ELLs went to as a CoP that provided her with opportunities for legitimate peripheral participation.

Adopting the CoP model into formal education has invited criticism, as some feel that it cannot be replicated in educational settings. For example, Barab and Duffy (2000) have argued that educational contexts provide learners with “practice fields” rather than CoPs, maintaining that “practice fields are separate from the real field, but they are contexts in which learners, as opposed to legitimate participants, can practice the kinds of activities they will encounter outside of schools” (Barab & Duffy, 2000, p. 30, emphasis in original). They claim that by doing activities in course-based settings “there is clearly a separation in time, setting, and activity from them and from the life for which the activity is preparation” (Barab & Duffy, 2000, p. 30). While it is true that a classroom or a course-based community will not always be a CoP, for language learners, it is possible to have a CoP within the physical bounds of the classroom.

Barab and Duffy’s (2000) term, practice fields, adequately describes what is found in many educational settings, but their distinction between learners and legitimate participants overlooks the fact that in some educational contexts, learners are legitimate participants. From Barab and Duffy’s perspective, languages are learnt for use beyond classrooms so course-based interaction is seen as artificial and external to the CoP framework. However, it is worth acknowledging that the interaction may be very real to the learners, and facilitating communication between students and with the teacher may be an aspirational goal of teachers. As the group’s overarching goal of students’ L2 acquisition is the same, there is arguably a community that is working towards a common
goal, while accommodating individual goals.

Acceptance of the CoP framework within school-based language learning settings is supported by Lantolf and Pavlenko, who define a CoP as something that can be “as broad as society or culture, or as narrow as a particular language classroom [emphasis added]” (2001, p. 148). It is also supported by Wenger himself (now known as Wenger-Trayner), as shown in the following extract:

Communities of practice are formed by people who engage in a process of collective learning in a shared domain of human endeavor: a tribe learning to survive, a band of artists seeking new forms of expression, a group of engineers working on similar problems, a clique of pupils defining their identity in the school [emphasis added] . . . In a nutshell: communities of practice are groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly. (Wenger-Trayner & Wenger-Trayner, 2015, para. 4)

Drawing upon the CoP framework, Firth (2012) argues for socially embedded, group-based L2 learning within schools, noting:

Learning of any kind is rooted in and shaped by particularized social practices. This is the core insight of Lave and Wenger’s (1991) influential notion of situated learning and underpins Vygotsky’s (1978) theories of learning. Classrooms and experimental settings where ‘L2 learners’ perform tasks and interact with teachers and fellow students are communities of practice. (2012, p. 10, emphasis in original)

Drawing together this information, it can be argued that CoPs, which facilitate learning through social interaction between people at different levels of capability, are highly desirable in language education. Furthermore, it could be contended that if classrooms do not naturally transform into places in which this kind of interaction occurs, there is a role for educators to employ methods that facilitate it.

The CoP framework draws upon many tenets of sociocultural theory so it is pertinent to briefly examine the effects sociocultural theory has had upon education in general and language education in particular.

2.2.3 The Influence of Sociocultural Theory on SLA

It is difficult to overestimate the influence that sociocultural theory has had upon educational research and practice since it was translated from Russian into English. There are thousands of books and journal articles that draw on and extend Vygotsky’s work in
educational settings, with its practical applications shaping education policies and practices, from pre-school to university and beyond. It has been used in a wide range of areas, from literacy instruction (Mills, 2010; Purcell-Gates, Melzi, Najafi, & Orellana, 2011), maths and science (Lerman, 2001; Kubli, 2005; Roth, Mafra Goulart, & Plakitsi, 2013) and special needs education (H. Daniels & Hedegaard, 2011) to the use and integration of instructional technology (Whipp, Eckman, & van den Kieboom, 2005). It has also been linked to motivation, with Justice and Vukelich noting that “when children are not challenged enough, they do not perform at their highest level of ability because the brain is understimulated […]. Conversely, working within children’s ZPD prevents cognitive overload, which can lead to frustration and negatively affect motivation” (2008, p. 225). Together, these examples show that as a theoretical construct, its influence is far-reaching.

The adoption of sociocultural theory for such wide educational settings and purposes suggests it has rigour, but what is more important to this study is its role in SLA, which has been led by the work of pioneers such as Lantolf, Thorne and Poehner (e.g. Lantolf, 2000; Lantolf & Appel, 1994; Lantolf & Poehner, 2011; Lantolf & Thorne, 2006; Lantolf et al., 2015; Poehner & Lantolf, 2013) and other researchers in this field who have tailored Vygotsky’s work to fit the L2 setting. For example, Ohta contextualised the ZPD by redefining it as “the difference between the L2 learner’s developmental level as determined by independent language use, and the higher level of potential development as determined by how language is used in collaboration with a more capable interlocutor” (1995, p. 96). This interlocutor could be a teacher, a classmate, or someone outside of the formal educational environment. The kind of guidance and collaboration that Vygotsky and Ohta refer to involves more knowledgeable participants “scaffolding” tasks for less knowledgeable ones by controlling elements that exceed a learner’s initial capacity (Wood et al., 1976). In the last two decades, scaffolding has been adopted into L2 education, with teachers and/or peers taking on the role of the more knowledgeable other (de Guerrero & Villamil, 2000; Kargar & Tayebipour, 2015; Kayi-Aydar, 2013; Ohta, 1995; Rassaei, 2014). In such contexts, the peers may not have an explicit understanding of scaffolding or be consciously aiming to do it in the way that has been outlined above, but if they are facilitating learning in the way that scaffolding does, these interactions can be seen as scaffolding.
Chapter Two

The information provided in this chapter thus far shows the importance of sociocultural theory in SLA. In the section below, an extension of sociocultural theory that is relevant to this thesis—activity theory—is introduced.

### 2.2.4 Activity Theory

This complex framework, which is also known as cultural historical activity theory (CHAT), seeks to explain human “activity”, defined as “purposeful, transformative, and developing interaction between actors (“subjects”) and the world (“objects”)” (Kaptelinin, 2013). Despite its name, there have been suggestions that it is not technically a theory itself but rather “a set of basic principles which constitute a general conceptual system which can be used as a foundation for more specific theories” (Kaptelinin, Kuutti, & Bannon, 1995, p. 191). It has been used as an analytical framework by scholars such as Swain, Kinnear and Steinmann (2011) and Yamagata-Lynch (2003, 2010, 2014), and is applied in this way in my research. Like many other frameworks, it has evolved and expanded over the years, with multiple models in current use. Its roots lie in Russian psychology, as it is based on work Vygotsky (1978) and his colleagues did in sociocultural theory in the 1920s and 1930s. Leontyev (1978), who studied under Vygotsky, is credited with developing activity theory as an extension of this (Kaptelinin & Nardi, 2006). When the work of these Russian scholars was translated into English decades later, Engeström (1987, 1999) took some of their concepts and developed them into a substantially more complex model of activity theory (the activity system model), which was later expanded to include multiple, intersecting activity systems (the expansive learning model). As activity theory can be better understood after considering its historical development, a brief overview is given below.

As previously noted, activity theory draws heavily on the work of Vygotsky and his contemporaries. Vygotsky’s (1978) notion of individual learning through social interaction and his conceptualisation of mediated artefacts influenced Leontyev in his development of the first generation of activity theory. Leontyev (1978) proposed a hierarchy that broke human activity into three levels, with activity at the top, actions below that, and operations at the bottom. At each level, different factors have an impact, with activity connected to motives, action connected to goals, and operations connected to instrumental conditions. Leontyev never represented his ideas graphically, so I have developed the diagram in Figure 2.2 to represent the key features. In this diagram, one
activity, two actions and four operations have been shown. While it is generally expected that there will be an increase at each level as multiple actions and operations are required to complete activities, the number of components on each level will depend on the activity.

Leontyev (1978) argued that human actions are done to meet people’s conscious goals, which fulfil their conscious needs, but are also done for larger, sometimes unconscious reasons (motives or objects). He also argued that when actions become routine, they become unconscious components of actions (operations). This is exemplified in Figure 2.3, which examines the activity of a hypothetical language learner by looking at a small sample of possible goals and conditions that could contribute to the learner’s motives.

A language learner (subject) may write an essay or do an oral presentation in their L2 (actions) as part of their overall language learning activity. Their goals may be to get high
grades for the essay and presentation and improve their language skills, while their motives could be to live in a foreign country and get a job that requires high-level L2 proficiency. The instrumental conditions could be things like the parts of the language that they can already use naturally (such as basic verb tenses and vocabulary) and knowledge of how to use a word processor or presentation software without having to consciously think through each step of operation. While not depicted in the diagram, it is important to note that the learner would also need to use vocabulary and grammar that they have not fully acquired. In this case, their language use is not routine and learning new vocabulary and grammar become actions, with operations such as using an electronic dictionary and searching the Internet for grammar rules.

In addition to the work outlined above, Leontyev built on Vygotsky’s triad model (subject, object, mediating artefact) by acknowledging the need to take the subject’s wider community into account. Engeström (1987) expanded on their work to create a more complex model for the structure of a human activity system (shown in Figure 2.4). In the section below, the key elements, also referred to as nodes, are briefly outlined.

**Figure 2.4.** Structure of a human activity system (adapted from Engeström, 1987, p. 78).

**Subject**: The subject is the person or group of people that is undertaking the activity. Activity theory allows researchers to analyse problems from different perspectives, so the subject is broadly defined as the “individual or subgroup whose position and point of view are chosen as the perspective of the analysis” (Engeström & Sannino, 2010, p. 6). While the subject is often a person or group of people, it can also be an organization (Engeström, 2001).

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2 This representation is based on Engeström’s graphical depiction of “The structure of a human activity system” with arrows added to reflect the two-way interaction between nodes. Note that in later adaptations of the model, sense and meaning were dropped and object replaced the oval.
Object: The object is “the goal and motive for subjects to participate in an activity” (Yamagata-Lynch, 2014, p. 97). Different activities are distinguished from each other by their objects (Nussbaumer, 2012). The object motivates activity by driving it in a particular direction. As Leontyev explains, “It is the object of activity that endows it with a certain orientation. In the terminology I have been using the object of activity is its motive. Naturally, this may be both material and ideal; it may be given in perception or it may exist only in imagination, in the mind” (1978, p. 6, emphasis in original). Engeström and Sannino add to this, noting that the object is “the ‘raw material’ or ‘problem space’ at which the activity is directed. The object is turned into outcomes with the help of instruments, that is, tools and signs” (2010, p. 6). In Leontyev’s (1978) work, there is a differentiation between people’s goals, which align with people’s conscious needs, and their motives or objects, which are done for larger, sometimes unconscious reasons. While recognising this distinction by Leontyev, the triadic models used for activity systems analysis in Engeström’s (1987) work do not differentiate between these terms (i.e. there is an object node but no goal node), so goals are included as a subset of the object node when using triadic models in this study.

Mediating Artefacts, Tools and Signs: Mediating artefacts were originally introduced in Vygotsky’s triad of “a complex, mediated act” (1978, p. 40). These artefacts can encompass anything that is used by the subject to reach the object, and can be material or symbolic (Swain et al., 2011), including a wide range of tools and signs. Concrete examples include all manner of assistive devices, from semiotic systems (Engeström, 1987) and technology (Murphy & Rodríguez-Manzanares, 2014) to “social others, and prior knowledge” (Yamagata-Lynch, 2003, p. 101).

Community: Engeström defines a community as “those who share the same object of activity” and maintains that “an activity system is always a community of multiple points of view, traditions and interests” (2001, p. 136). In traditional educational settings, he has argued that it is generally restricted to the classroom (Engeström, 2001, p. 136), which suggests it consists primarily of students and teachers who share classes. However, it can reach beyond the classroom, with Murphy and Rodriguez-Manzanares (2014) suggesting that a student’s community could encompass their institution or discipline, or reach even further, extending beyond their educational setting. Yamagata-Lynch lends support to this, defining it as “the social group with which the subject identifies while participating in the activity” (2010, p. 23).
**Division of Labour:** According to Engeström, division of labour is used in reference “to the division of functions and tasks among the members of the community” (1991, p. 249) and in educational settings it has been argued that this division is mainly between students and teachers rather than among the student body (Murphy & Rodríguez-Manzanares, 2014). This division can be influenced by the power and status of the community members, with teachers generally more likely to be able to control who does what.

**Rules:** According to Engeström (1991), the activity that the community members are attempting to do is regulated by rules, also referred to as norms, and these can be stated directly or implied. They can be thought of as “explicit and implicit rules that provide guidance to acceptable interaction among participants” (Ryder & Yamagata-Lynch, 2014, p. 203) so in educational settings, they do not only refer to school rules, but also more broadly to common practices.

**Outcome:** Activity systems work towards objects and in doing so they reach outcomes, which have been described as “the end result of the activity” (Yamagata-Lynch 2010, p. 2). Objects may or may not be achieved and if achieved, their achievement can be expressed in a multitude of ways, so outcomes and objects do not always clearly align.

These elements were combined to make the activity system model because Engeström (1987, 1999) believed important elements were lacking in previous work. In *Mind in Society*, Vygotsky (1978) argued that development involves an individual (subject) using mediating artefacts to achieve something (object), and while Leontyev (1978) noted that activity theory could be applied to groups, his work also focused on individuals. However, Engeström felt that it was important to consider collectives (social entities) and the wider collective activity system. Leontyev’s addition of community was a starting point, but Engeström added factors such as the rules that determined the subject’s interaction with the community, where individuals fit within wider groups and social contexts, and how that position may shape their actions. He drew on his own life experiences as an activity theory scholar to show where earlier work needed extension. In Figure 2.5, he uses Vygotsky’s triadic model to show the different aspects involved when he wrote a speech on activity theory (top) and used it to make a presentation (bottom).
Figure 2.5. Engeström’s (1999, p. 30) use of Vygotsky’s triadic model as “a triadic representation of actions.”

While accepting Vygotsky’s model conveyed the basic elements of the process, Engeström felt it needed to be expanded because “it does not fully explicate the societal and collaborative nature of my actions. In other words, it does not depict my actions as events in a collective activity system” (1999, p. 30). He argued that the old models depicted the outcomes as limited and bound to the situation and that his “complex model of an activity system” (Engeström, 1999, p. 31), which is depicted in Figure 2.6, encompassed the activity much more fully.
In this model, the subject is not just Engeström as a sole scholar, but the whole group of scholars who are involved in organizing the conference he attended. This activity system aims to represent the on-going activities of activity theory scholars collaborating from around the globe. The mediating artefacts include the same tools that were drawn on in the simpler models above, but the congress that was presented at (and presumably others like it) also becomes a tool, and so do other materials produced by those involved in the conference. The object is still the same but the outcomes move beyond small scale, situation-bound ones, such as producing a single text or inspiring audience reflection and debate after a presentation, to larger, community-based ones, such as creating new intellectual tools and patterns of collaboration. These new outcomes are met through the combination of efforts made by the subject and community, which in the example above includes professionals from all over the world who are interested in activity theory. These groups are both drawing from and producing the mediating artefacts, such as conferences and publications, with the labour of creating tools divided between people from different disciplines, language backgrounds and so forth.

The model above was later developed into third generation activity theory, a model that “takes two interacting activity systems as its minimal unit of analysis, inviting us to focus

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Figure 2.6. A complex model of an activity system (Engeström, 1999, p. 31).
research efforts on the challenges and possibilities of inter-organizational learning” (Engeström, 2001, p. 133). A model of this is depicted in Figure 2.7.

![Figure 2.7](image)

Figure 2.7. Two interacting activity systems as minimal model for the third generation of activity theory (Engeström, 2001, p. 136).

A noteworthy element of activity theory is the notion of expansive transformations. Engeström explains, “Activity systems move through relatively long cycles of qualitative transformations. As the contradictions of an activity system are aggravated, some individual participants begin to question and deviate from its established norms” (2001, p. 137). This deviation is thought to be sparked by aggravation caused by the contradictions within and between activity systems, with contradictions seen as a “driving force of change in activity” (Engeström, 2001, p. 133). Engeström identified four levels of contradictions:

- **Level 1**: Primary inner contradiction (double nature) within each constituent component of the central activity.
- **Level 2**: Secondary contradictions between the constituents of the central activity.
- **Level 3**: Tertiary contradiction between the object/motive of the dominant form of the central activity and the object/motive of a culturally more advanced form of the central activity.
- **Level 4**: Quaternary contradictions between the central activity and its neighbour activities. (1987, pp. 103-104)

There can be great value in examining contradictions at all four levels, but to do so, first it is important to understand what they are and there is divergence in the literature over this term. Yamagata-Lynch explains that “human activity can be affected by systemic contextual contradictions that bring tensions into the subject’s ability to attain the object”

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Tensions occur when the subject is faced with “contradictory situations that hamper the attainment of the object” with the conditions of different components of activity systems working against each other to prevent object attainment (Yamagata-Lynch, 2003, p. 103). In the literature, tensions have been explored under a wide range of terminology, as shown in Murphy’s and Rodríguez-Manzanares’s meta-analysis:

These manifestations [of contradictions] have been referred to in the literature as: disturbances (Capper & Williams, 2004); disruptions (Berge & Fjuk, 2006); problems, ruptures, breakdowns, clashes, misfits (Kuutti, 1996); conflicts (Dippe, 2006); inconsistencies or discrepancies (Kaptelinin & Nardi, 2006); cross-purposes (Russell & Yañez, 2003); historically accumulating structural tensions (Engeström, 2001); and systemic tensions (Barab, Barnett, Yamagata-Lynch, Squire, & Keating, 2002; Yamagata-Lynch, 2010). (2014, p. 80)

According to Murphy and Rodríguez-Manzanares, contradictions can be manifested as problems. They note that:

Resolution of the problems allows for a better fit within and between activities. It is in this sense that contradictions can be a mechanism of transformation (Mørch, Nygard, & Ludvigsen, 2009, p. 191) or motivating force of change and development (Engeström & Miettinen, 1999, p. 9) and of innovation (Engeström, 2001). The resulting fit and congruity of components within and between activity systems allow new forms of activity to emerge. (Murphy & Rodríguez-Manzanares, 2014, p. 80)

_Tensions_ and _contradictions_ are important elements of activity theory but the sections above give a brief look into the complexity of defining and understanding these terms. Some delineation between them has been laid out, but activity theory is a complex framework and understanding of these terms is not universal. In a meta-analysis of activity theory literature, Karanasios, Riisla and Simeonova (2017) noted that the terms contradiction and tension had been used interchangeably. The quotations above show that tensions are created by the contradictions but in practical terms, the blurred line between the two can be difficult to grasp. Engeström himself has differentiated between the two, but his use of both terms to represent the jagged arrows in his diagrams, sometimes directly referring to them as tensions (Engeström & Sannino, 2010) and other times as contradictions (Engeström, 1993, 1999, 2001), can lead to confusion. However, his definition of contradictions as “historically accumulating structural tensions within and between activity systems” (2001, p. 137) shows the separate nature of the terms. Yamagata-Lynch further highlights the difference by explaining that “tensions arise when the conditions in the context of the activity put the subject in contradictory situations” (Yamagata-Lynch, 2014, p. 98). Furthermore, while tensions have been used
interchangeably with “problems” (for example, Murphy and Rodríguez-Manzanares, 2014; Kuutti, 1996). Engeström has said that “contradictions are not the same as problems or conflicts” (2001, p. 137), indicating that tensions are not synonymous with contradictions. Engeström and Sannino elaborate by explaining that “contradiction is a foundational philosophical concept that should not be equated with paradox, tension, inconsistency, conflict, dilemma or double bind. Many of the terms misused as equivalents [sic] of contradiction may better be understood as manifestations of contradictions” (2011, p. 370). In my analytical work, all attempts to identify tensions and contradictions are done bearing these differences in mind.

Activity theory has been applied as an analytical framework in SLA to address a wide range of concerns since its adoption into the field in the 1990s. In one of the earliest applications in an L2 context, Coughlan and Duff (1994) drew on Leontyev’s framework to show that tasks are not stable, as different learners or even the same learner at different times, will not approach tasks in the same way. They argued that social factors impacted upon the task so “second language data cannot be neatly removed from the sociocultural context in which it was created or collected” (Coughlan & Duff, 1994, p. 190). Other early adopters of this framework in SLA include Lantolf and Appel (1994), Ahmed (1994), Gillette (1994) and Ohta (1995). More recently, Storch (2004) used Leontyev’s concepts of goals and motives to analyse differences in how students interact in pair work, Yu and Lee (2015) examined the role of motives in students’ participation in L2 writing peer feedback tasks, and Ryder and Yamagata-Lynch (2014) used activity systems analysis to investigate differences in pairs of students with high and low functionality in a telecollaborative program that was set up between students in the United States of America and China.

An important aspect of activity theory that makes it valuable as an analytical tool is its principle of multi-voicedness (Engeström, 1987). To fulfil this completely, “all the conflicting and complementary voices of the various groups and strata in the activity system under scrutiny shall be involved and utilized” (Engeström, 1987, pp. 315-316). Looking at issues from multiple perspectives can allow researchers to view issues holistically and consider the influence of intertwining factors. For example, Swain et al. used activity theory to facilitate an understanding of “the tensions and paradoxes that occur in teaching and learning” (2011, p. 94). This work looked at the ways in which a teacher and student used email as a mediating tool to develop the students’ English
language skills, showing how misunderstandings can occur when teachers and students do not have enough knowledge of each other’s perspectives. To illustrate this point, they showed how a teacher in their study was reluctant to tell her student that he had used an idiom incorrectly as she felt she would be over-riding his voice. This feeling emerged after the teacher participated in a course that examined the detrimental effects of the asymmetrical power relationship between teachers and students. However, from the student’s perspective, corrective feedback was both expected and desired. He wanted direct feedback as it tied in with his goal of interacting with his colleagues in English, and he did not feel disempowered by being corrected. This shows a tension between these two subjects’ activity systems and understanding this tension may allow a resulting problem (i.e. that the student felt he was not receiving sufficient corrective feedback) to be resolved. The application of activity systems analysis to this context allowed for this understanding to come to light.

Another important principle of activity theory that makes it a robust analytical tool is historicity. As noted by Engeström, “participants carry their own diverse histories, and the activity system itself carries multiple layers and strands of history engraved in its artifacts, rules and conventions” (2001, p. 136). Activity systems are shaped over time and using activity systems analysis to examine issues from different perspectives at different time periods can lead to in-depth understanding. An example that demonstrates this can be found in a case study on peer feedback with university-level ELLs. Yu and Lee (2015) examined participants’ prior learning experiences in order to understand their motives. For example, they drew upon interview data to show how a student’s motives towards doing peer feedback at university were influenced by his experiences with peer feedback in high school.

A key affordance of this analytical tool is that it can allow researchers to gain insight into aspects of learning that would normally remain invisible. Blin and Appel (2011) exemplify this in their study on collaborative writing, which used activity systems analysis to understand influences on four ELLs’ language use and their online negotiations during a course-based writing activity. They focused on the connection between the subjects’ collective activity and their individual actions and were able to identify various modes of interaction that aided development of L2 awareness and use, and also identified that systemic contradictions that constrained learning outcome attainment. Their application of activity systems analysis was particularly valuable in this
study as they used it to analyse the “hidden curriculum” in the students’ collaborative writing activity. They argued that successful collaboration cannot be limited “to the visible participation of students in the collective activity, nor to the apparent division of labor. As the activity unfolds, the mediational and collaborative structures of the activity are likely to transform themselves in unexpected ways” (Blin & Appel, 2011, p. 478). Their analysis showed that social mediators, which they identified as “individuals, relevant communities, and the division of labor within these communities” (Blin & Appel, 2011, p. 475), played an important role in shaping outcomes. By looking at social mediators and the hidden curriculum as it unfolded, they provided new insights into the collaborative process of L2 learning activities that may have not emerged if the activity theory lens had not been applied.

These examples show that activity theory has been used in a broad range of contexts and can facilitate a new level of understanding. It is for this reason that it has been adopted as one key analytic method in this study. The way that is was used as an analytical framework in this study is outlined in the methodology section in Chapter Three.

2.3 Autonomous Learning in SLA

Another central aspect in this thesis is autonomous learning, so it is imperative to define it. However, in doing so, it is important to recall that “autonomy is not a universal and neutral concept” (Schmenk, 2005, p. 115). In an extensive review of three decades of work on autonomy in SLA, which examined areas such as self-access centres, computer-assisted language learning, distance learning, tandem learning, and self-instruction, Benson concluded that “the relationship between learning beyond the classroom and autonomy is complex” (2007, p. 27). In the decade since Benson’s meta-analysis, studies on autonomous learning in L2 contexts have increased but, due to its multifaceted nature, unified agreement on its meaning remains elusive.

Before adopting the term autonomous learning in this study, independent learning was considered but that term was abandoned because the word independent may be misinterpreted as a solitary process. However, simply changing the terminology does not overcome the association with autonomous learning as a process of working alone as autonomous is sometimes used synonymously with independent (Morrison, 2011). The terms are not uniformly believed to be interchangeable though, with Deci (1996) arguing
that independence and autonomy are not one and the same, as “independence means to do for yourself, to not rely on others for personal nourishment and emotional support” (Deci, 1996, p. 89) whereas autonomy relates to doing something freely, of one’s own volition. He points out that it is “possible for a person to be independent and autonomous (i.e., to freely not rely on others), or to be independent and controlled (i.e., to feel forced not to rely on others)” (Deci, 1996, p. 89). This perspective was echoed in his later collaborative work with Ryan, which stated that “autonomy refers not to being independent, detached, or selfish but rather to the feeling of volition that can accompany any act, whether dependent or independent, collectivist or individualist” (R. M. Ryan & Deci, 2000, p. 74). Thus, while for some there is overlap in the usage of independent and autonomous, for others they are clearly different.

The terms self-directed and self-regulated have also been used synonymously with autonomous learning (Morrison, 2011) so need to be considered. Self-regulated learning has been described as “strategic and metacognitive behavior, motivation, and cognition aimed toward a goal” (Hadwin & Oshige, 2011, p. 243). According to this perspective, teachers may use strategies such as modelling and prompting to encourage self-regulation, but the individual is seen as responsible for regulating their own behaviour (Hadwin & Oshige, 2011). In this sense, it is similar to Morrison’s definition of independent learning, which posits that while such learners “take responsibility for defining their learning needs, identifying the means to attain them, and monitoring and evaluating their own progress” (2011, p. 4), this may be done with support from others, including teachers and peers. While others may be involved, responsibility for control is left with the students. Weinstein, Acee, Jung and Dearman (2011) argue students need “to become autonomous, strategic and self-regulated learners who are willing to take more responsibility for their own learning processes, metacognitive control, motivation, and other generative learning thoughts and behaviours” (p. 42).

While there is no universally accepted definition of what autonomous learning actually encompasses, what can be said for certain is that views on autonomy within SLA have changed over time. Holec’s (1981) definition of autonomy as “the ability to take charge of one’s own learning” (p. 3) is often recognised as bringing the concept into the language learning context (Benson, 2011; Blidi, 2017; Murray, 2014), so historically responsibility for learning was placed on the learner. While this definition is still widely cited today, questions have since been raised about how this is done and what role others have in
facilitating it. In the 1980s, the responsibility for managing autonomous learning seemed to rest squarely on the shoulders of the learner. Dickinson, for example, viewed the achievement of learner autonomy as “the situation in which the learner is totally responsible for all of the decisions concerned with his [or her] learning and the implementation of those decisions” (1987, p. 11). These notions of “taking charge” and being “totally responsible” may be used to suitably describe “fully” autonomous learners, but they do not encompass those who are on the pathway to that point. In an early, oft-cited conceptualization of learner autonomy, Little defined it as the capacity learners have “for detachment, critical reflection, decision-making, and independent action” (1991, p. 4). However, he criticized the assumption that teachers need to relinquish their initiative and control in order for this to be achieved, challenging the notion of teachers being redundant when any level of autonomy had been achieved and the “belief that any intervention on the part of the teacher may destroy whatever autonomy the learners have managed to attain” (Little, 1991, p. 5).

At the end of the 1990s, Nunan (1997) introduced the concept of “degrees of autonomy” (awareness, involvement, intervention, creation and transcendence), framing the ideology of autonomy as something that evolves on a spectrum. He elaborated upon this several years later, focusing on the role of the teacher:

There are levels and degrees of learner autonomy. In fact, dependence and autonomy are not categorically distinct. Rather, they exist on a continuum. In my own classrooms, I work hard at moving learners along a continuum from total dependence on the teacher to autonomy. This is done by incorporating a series of steps into the educational process. (Nunan, 2003, p. 195)

This concept of a continuum that involves teachers has been explored more recently in Blidi’s (2017) Collaborative Learner Autonomy perspective. His conceptualization of collaborative autonomy emphasizes educators’ constructivist role in autonomy building, advocating “Responsible Reliance on the Teacher”, which begins with active reliance on teachers and tapers off as autonomy builds. During this period, teachers act as a guide for learning opportunities and tasks, and lead students towards greater self-reliance and involvement in their own learning. While autonomy is often linked to words like independent and self-directed, Blidi argues that reliance on teachers can be beneficial. He repositions initial teacher reliance as an opportunity “that should be properly exploited to help in the development of learner autonomy” (Blidi, 2017, p. xxix). As noted above, he advocates “Responsible Reliance on the Teacher”, which he views as “reliance in the
sense of having the teacher present to provide the learners with the learning opportunities and the learning tasks and guide their use of such opportunities” (Blidi, 2017, p. xxix). Over time, students gradually build autonomy and become less reliant. Therefore, he posits that “the main role teachers and HEIs [higher educational institutions] should play in developing learner autonomy is training learners to become responsible for and get more involved in their own learning” (Blidi, 2017, p. xxviii). Blidi’s identification of active roles for educators in helping students to develop learner autonomy may help to diffuse any negative perceptions that may arise about students who do not take action by themselves, such as claims that they lack motivation. This is particularly important to consider in the context of this study, as Holliday (2003, 2005) asserts that care needs to be taken not to portray non-Western learners as passive.

The work of researchers such as Nunan (1997, 2003) and Blidi (2017) suggests that teachers have an important role in fostering autonomous learning. They propose that receiving support is part of learners’ pathway to greater independence. In other words, by offering learners support through both human and material tools, teachers can substantially influence students’ learning practices, including their out-of-class learning, as what happens inside classrooms can have a substantial impact upon what happens outside of them.

In this thesis, I draw on an understanding of autonomous learning as learning which is done of someone’s own volition, but not necessarily alone or without guidance and prompting. Learner autonomy is something that ultimately occurs within the learner but is fostered by social others, with a central role for teachers to play. In my view, fully autonomous, out-of-class learning occurs when students make their own decisions about whether or not to study and are the ultimate decision makers on when, how long and what to do in order to improve their language skills. Whether or not a student chooses to learn autonomously outside of class should have no direct impact on school grades. However, this does not mean that teachers cannot monitor it, encourage students to study and provide support that will help them to do so effectively.

2.3.1 Empirical Studies on Autonomous Learning in Japan

At the time this study was being planned, most Japan-based research that focused on students’ autonomous, out-of-class learning tended to be conducted in contexts that fell
outside of traditional English language classes. For example, data were collected through self-access learning centres (SALCs) (Castellano, Mynard, & Rubesch, 2011; Mynard & Navarro, 2010) and/or courses that were specifically designed for self-directed learning (Morrison, 2013; Murray, 2009; Smith & Craig, 2013) or through researchers recruiting and guiding learners in experimental projects outside of classroom settings (Mindog, 2016; Okazaki, 2014). Such studies provide valuable insight into factors that are important in facilitating learner autonomy. For example, Mynard and Navarro (2010) point out the importance of peer-to-peer dialogue and Murray (2009) emphasises the importance of students making learning plans and teachers scaffolding this process by providing questions that can guide students. Furthermore, Smith and Craig note that “regular and critical learner self-reflection is a key factor contributing to a positive shift in study culture” (2013, p. 252) and teachers can have a role in facilitating this. However, the value has limits for classroom teachers as the activities conducted in such studies cannot always be easily replicated in skill-based English language classes due to factors such as restrictive syllabus requirements and differences in teacher-student ratios.

It is understandable that most Japan-based research was conducted in SALCS and self-directed learning courses as in many ways these are the ideal contexts for learners to receive support for autonomous learning. Yet is it important to recognise that SALCs have not traditionally been a part of university learning programs in Japan as most of them were created after 2000 and such centres were still rare at the time of this study (Mynard, 2016). Self-directed learning courses are not widely available at tertiary level either, particularly as a required subject, so studies on such courses only target a small proportion of ELLs in Japan. Skill-based English classes remain far and large the most widely available means of support for ELLs at Japanese universities. Therefore, while these types of studies certainly make valuable contributions to the field, the differences between such contexts and English language classrooms make it is important to understand more about fostering learner autonomy within classroom contexts. At the time of this study, there was a lack of literature to guide university-level English teachers on how to foster the use of digital technologies for out-of-class, autonomous language learning, signalling a need to address this gap.
2.4 Motivation Research in SLA

Motivation has been a key area of interest in SLA for many years and plays a central role in this study. Since the turn of the century, there has been a surge in L2 motivation research around the globe (for a brief summary, see Ushioda, 2013b, p. 2) and the wide array of books and articles that have been published in the last decade are testament to its on-going importance to the field (Apple, Da Silva, & Fellner, 2013; Dörnyei, Henry, & Muir, 2016; Dörnyei, MacIntyre, & Henry, 2015; Dörnyei & Ushioda, 2009a, 2011; Murray, Gao, & Lamb, 2011; Ushioda, 2011, 2013a). However, like autonomous learning, the meaning of learner motivation is not universally understood in the same way by all those who use this term and it has also evolved over time.

When the concept of motivation was first brought into SLA from social psychology, it was broadly divided into two types: instrumental and integrative motivation (Gardner, 1985; Gardner & Lambert, 1959, 1972). Instrumental motivation was seen as being connected to goals, such as gaining employment, that could be achieved with a learner’s new language skills, while integrative motivation was driven by a desire to become part of a language community. Gardner and Lambert also defined integrative motivation more broadly as a “sincere and personal interest in the people and culture represented by the other language group” (1972, p. 98). If learners study to fulfil this interest, their motivation could be described as intrinsic, which Pintrich and Schunk define as “motivation to engage in an activity for its own sake” (1996, p. 245), perhaps for pleasure or to appease curiosity.

While Gardner and Lambert’s model of motivation was taken up quite enthusiastically at first, it has faced more criticism within the SLA context in recent years, partly because ideas about motivation have developed in response to the changing role of English as an international language and lingua franca. For example, learners do not always have a clear view of the target group for their “integration” (C. Higgins, 2011). The widespread adoption of English means that it is used by diverse communities around the globe, and due to this, Dörnyei and Ushioda question whether it is appropriate “to talk about integrative attitudes when ownership of English does not necessarily rest with a specific community of speakers” (2009b, pp. 2-3). Yashima (2002, 2009, 2013) addresses this concern for the need for more context-specific notions of motivation through her concept of “international posture”. She argued that Japanese ELLs have dual goals, driven by both
school-based aims and the desire to be able to communicate in international settings with an imagined international community. International posture gives researchers a way to explain motivation that is connected to the latter goal. This attitudinal construct encompasses factors such as “openness towards dissimilar others and a willingness to approach them as well as interest in an international vocation and in global affairs” (Yashima, 2013, p. 39).

In order to address social factors that impact upon learners, Norton (previously known as Norton Pierce) developed the construct of investment (Norton Pierce, 1995; Norton, 2013). This construct was not created to work in opposition to motivation, but rather to complement it (Norton, 2013). She contends that it is possible for language learners to be motivated but not have investment in their L2 due to sociological factors, such as facing elitism or racism in the classroom, or feeling that the language practices of their classroom or community are at odds with their expectations. Conversely, she argues that learners who are invested in their language practices are likely to be motivated to learn. For two decades, she has asserted the following:

If learners invest in a second language, they do so with the understanding that they will acquire a wider range of symbolic and material resources, which will in turn increase the value of their cultural capital. Learners expect or hope to have a good return on that investment – a return that will give them access to hitherto unattainable resources. (Norton Pierce, 1995, p. 17; Norton, 2013, p. 50)

In other words, people learn languages to increase their cultural capital, and it is important to learners that the investment is seen as worth the effort. In her theory of investment, Norton also refers to imagined communities, which were initially conceptualised in Anderson’s (1991) work then further developed by Norton (2001) individually and in conjunction with Pavlenko (Pavlenko & Norton, 2007). According to Norton, “an imagined community assumes an imagined identity, and a learner’s investment in the target language can be understood within this context” (2013, p. 3). These imagined identities can be influential in shaping learners’ investment.

Norton’s concepts of imagined communities tie in with conceptualisations of imagined selves, which are theorised in Dörnyei’s (2005, 2009) L2 Motivational Self System. His framework consists of three major components, which are the “ideal L2 self”, the “ought-to L2 self”, and the “L2 learning experience”. In creating this construct, he drew on “self” theories from psychology (E. T. Higgins, 1987, 1996; Markus & Nurius, 1986). Work by Markus and Nurius explored possible selves that “represent individuals’ ideas of what
they might become, what they would like to become, and what they are afraid of becoming” (1986, p. 954). Higgins’s (1987, 1996) work examined the concepts of the “actual self” (how people view themselves), the “ideal self” (how people want to be), and the “ought self” (how people think they should be). Dörnyei’s application of this previous work to the L2 learning context became the following three-part L2 Motivational Self System:

1. **Ideal L2 Self**, which is the L2-specific facet of one’s ‘ideal self’: if the person we would like to become speaks an L2, the ‘ideal L2 self’ is a powerful motivator to learn the L2 because of the desire to reduce the discrepancy between our actual and ideal selves. Traditional integrative and internalised instrumental motives would typically belong to this component.

2. **Ought-to L2 Self**, which concerns the attributes that one believes one ought to possess to meet expectations and to avoid possible negative outcomes. This dimension corresponds to Higgins’s ought self and thus to the more extrinsic (i.e. less internalised) types of instrumental motives.

3. **L2 Learning Experience**, which concerns situated, ‘executive’ motives related to the immediate learning environment and experience (e.g. the impact of the teacher, the curriculum, the peer group, the experience of success).

(Dörnyei, 2009, p. 29, emphasis in original)

Dörnyei and Ushioda pointed out that “L2 motivation is currently in the process of being radically reconceptualised and re-theorised in the context of contemporary notions of self and identity” (2009b, p. 1) and this reconceptualization continues to the present day as researchers conduct new empirical studies. Concepts such as Dörnyei’s (2009) L2 Motivational Self System are starting to become widely considered, adopted and adapted in Japan (for example, Falout, 2013; Kojima Takahashi, 2013; Suzuki, 2011, 2014; Ueki & Takeuchi, 2012, 2013; Yashima, 2013) and the body of empirical work that draws on it is growing. For example, in a study with 187 ELLs in the Japanese tertiary context, Suzuki (2011) found that students’ ideal L2 self could be a powerful motivating force for what her study classified as high- and mid-motivated learners. However, for low-motivated learners it was not found to be significant in motivating them to study English. In a later study, she investigated how the ideal L2 selves of 85 ELLs in a Japanese university developed over a semester, and considered the relationship of their L2 self with additional motivational variables (Suzuki, 2014). This study echoed her earlier findings and she was able to identify additional motivational variables—Linguistic Self
Competence and Interest in English Language—that were significant across motivational levels. Furthermore, she found evidence that a Parental Encouragement variable increased significantly during the semester under study. Her work shows the importance of taking multiple variables into account and considering how variables and constructs can affect different learners at different motivational levels across time.

Ueki and Takeuchi (2012) have echoed the importance of considering multiple variables through their study with 151 university-level ELLs. They found that the clarity of Japanese L2 learners’ images of their ideal L2 selves depended both on their motivation level and affective variables (e.g. anxiety and self-efficacy). Furthermore, their study determined that learners could develop clear images of their L2 ideal selves if given guidance, and that this could foster motivated learning behaviour. However, this study was conducted with learners majoring in English who planned to study abroad, which may have also influenced their motivation. In a follow-up study (Ueki & Takeuchi, 2013), they added a sample of 151 ELLs who were not majoring in English. In this study, they found that ought-to L2 self was the factor that had the greatest impact on the L2 motivation of ELLs who were not majoring in English. They noted that rather than focusing on positive outcomes, these learners tended to focus on negative ones and acted to avoid them, which could lead to efforts abating once negative outcomes had been dealt with. Their work highlights a need to consider students as individual learners whose motivation will be determined by diverse influences.

Activity theory has also been used to further understanding of L2 learners’ motivation. In her study of motivation in short-term study abroad programmes, Allen used activity theory to “account for both cognitive (or internal) and social/contextual (or external) aspects of motivation by using activity theory to approach language-learning motivational processes” (2010, p. 30). She was able to identify different motivations for participants to study French at tertiary level and traced the impact of this upon their experiences while studying abroad. She found that those with social motives and higher-level cognitive motives acted within and reacted to their study abroad context differently to those who had lower-level cognitive motives. She also found that when students’ motives were linguistic in nature they developed increased motivation to keep on studying and use French within the program. In contrast, students with non-linguistic motives did not increase their motivation to learn French and viewed their participation in the program as a cultural experience or an opportunity to travel. She felt the lack of increased motivation
in the latter group could “be explained by a lack of alignment of motive and goal combined with an inability to achieve meaningful participation in their new community of practice” (Allen, 2010, p. 45). However, her analysis of multiple variables also led her to conclude motivation could not be viewed as an unchanging internal characteristic within individuals as motivation is fluid and is impacted upon by many factors.

It is also common for studies on L2 learning to consider learner motivation in relation to the use of particular tools or tasks. For instance, in a report on using Facebook with ELLs in Japan, Prichard (2013) questioned students on areas such as their motivation to share their work through that platform, restricting his motivational focus on their use the learning tool that he introduced to them. Similarly, in a study on digital games, Goto Butler (2017) focused on identifying what Japanese learners positively responded to in order to identify what led to task motivation. Furthermore, in a study in Spain that aimed to boost students’ English reading skills with the social media tool WhatsApp, over 90% of participants reported that participating in the project heightened their motivation to read in their L2 (Gutiérrez-Colon Plana et al, 2013). Studies like these highlight various tool or task specific factors that motivate and demotivate learners so contribute much to what is known about the complexities of motivation and offer valuable insight for educators to consider when choosing tools and designing tasks.

To summarise, the literature review suggests it is beneficial to focus on motivation from multiple aspects, both by drawing on motivational theories and by looking at how particular tools and tasks motivate learners. This highlights a need for a more diverse view of motivation and empirical studies that explore it from multiple perspectives.

2.5 Digital Technology as an Educational Tool

From as far back as the invention of the printing press, technological changes have led to changes in education. In recent years, web-based digital technology has become inextricably entwined with education in many teaching contexts. There is debate about its effectiveness, with some believing it should play a central role and others seeing it as an unwelcome intrusion. In this section, two main areas will be explored. First, the notion of people from younger generations as technologically fluent and looking for opportunities to embed digital technologies into all aspects of their lives, as espoused by Prensky in his digital native construct (2001, 2005-2006) and Tapscott in his Net
Chapter Two

generation ideology (1997, 2009), is explained and critically evaluated. Following that, empirical studies that highlight benefits digital technology can offer learners are discussed.

2.5.1 The Net Generation and Digital Natives

Two decades ago, Tapscott (1997) coined the term “Net generation” to refer to people born from 1977 onwards, describing them as the first generation of people who grew up with digital media. A decade ago, when the digital landscape had significantly developed, he revisited this concept, claiming that “Net Gen children assimilated technology because they grew up with it” so for them “technology is like air” (Tapscott, 2009, p. 18). The impact of technology on this generation was believed to have enabled them to take control of their lives and reshape their societies, with Tapscott characterizing this as follows:

With their reflexes tuned to speed and freedom, these empowered young people are beginning to transform every institution of modern life. From the workplace to the marketplace, from politics to education to the basic unit of any society, the family, they are replacing a culture of control with a culture of enablement. (2009, p. 6)

The desire for speed and freedom mentioned above are part of eight key characteristics that Tapscott sees as stemming from the Net generations’ immersion in modern technology:

- They want freedom in everything they do, from freedom of choice to freedom of expression.
- They love to customize, personalize.
- They are the new scrutinizers.
- They look for corporate integrity and openness when deciding what to buy and where to work.
- The Net Gen wants entertainment and play in their work, education, and social life.
- They are the collaboration and relationship generation.
- The Net Gen has a need for speed.
- They are the innovators.

(Tapscott, 2009, pp. 35-36)

He argued these characteristics have implications for educators, pushing them towards Discovery Learning, as “Net Geners, immersed in digital technology, are keen to try new things, often at high speed. They want school to be fun and interesting. So, they should enjoy the delight of discovering things for themselves” (Tapscott, 2009, p. 134). However, there have been questions raised over painting whole generations with the same broad brushstrokes, and a cross-generational study by Bullen, Morgan and Qayyum “did
not find any evidence to support claims that digital literacy, connectedness, a need for immediacy, and a preference for experiential learning were characteristics of a particular generation of learners” (2011, p. 18).

Another term somewhat synonymous with Net generation that has attracted attention within education is “digital natives”. Prensky (2001), who coined this term, defines it as learners who have grown up surrounded by digital technology and, due to this, learn in different ways to previous generations. He divides society into two groups of people, with digital immigrants holding the opposing role. The age bracket for digital natives starts several years later than Tapscott’s (1997, 2009) Net generation, with those born in the 1980s the oldest members. Digital immigrants, born before that, are viewed as less “fluent” in technology, and as many teachers fit into the digital immigrant age bracket, concerns were raised over the negative impact this digital divide could have on learners. Prensky feared digital immigrants were using old technologies and teaching in ways that did not interest students or address their learning needs (Prensky, 2001; 2005-2006).

While many educators agree that technology can enhance learning opportunities, there is debate over whether the Net generation or digital native concepts can be applied to all young people and whether it is necessary for educators to digitally enhance their courses for these learners. Many educational researchers urge for caution. For example, Bennett, Maton and Kervin (2008) argue care should be taken when using the term digital native because Prensky’s (2001) foundational work lacks empirical support, and many of those who have cited his work have not been critical enough. They implore educators to seek more evidence before accepting the ideology behind the digital native construct, noting, “proponents arguing that education must change dramatically to cater for the needs of these digital natives have sparked an academic form of a ‘moral panic’ using extreme arguments that have lacked empirical evidence” (Bennett et al., 2008, p. 783). They criticise Prensky’s assertion that digital natives and older learners have fundamentally different ways of thinking and processing information, challenge the notion that digital natives multitask more, and raise concerns over the possible problems associated with encouraging multitasking. Furthermore, they stress that “the claim that there might be a particular learning style or set of learning preferences characteristic of a generation of young people is highly problematic” (Bennett et al., 2008, p. 780).

Since Bennett et al.’s (2008) call for empirical research, a wealth of evidence that
illuminates problems with the digital native and Net generation constructs has emerged. As part of his construct, Prensky outlined the types of activities he believed digital natives were using new technologies for, postulating they were:

- busy adopting new systems for communicating (instant messaging), sharing (blogs), buying and selling (eBay), exchanging (peer-to-peer technology), creating (Flash), meeting (3D worlds), collecting (downloads), coordinating (wikis), evaluating (reputation systems), searching (Google), analyzing (SETI), reporting (camera phones), programming (modding), socializing (chat rooms), and even learning (Web surfing)” (Prensky, 2005-2006, pp. 10).

However, G. Kennedy et al. (2008) found that there were low usage rates for Web 2.0 technologies among first-year university students in Australia, with very few using digital technology to do the kinds of activities Prensky had envisioned. G. Kennedy et al. criticised the digital native construct as treating a whole generation homogenously, overlooking the “complex mix of technology based skills, knowledge and preferences among the student population” (2008, p. 109). They reported large discrepancies in frequency of use, with many students indicating they had not used a large proportion of the tools surveyed in the previous year, if ever. Furthermore, students’ preferences for using technology to assist with their studies varied considerably. With the 2,000+ students in their study showing such a wide range of learning experiences and preferences, G. Kennedy et al. argued that rather than making one-size-fits-all assumptions, “educators and administrators should look to the evidence about what technologies students have access to and what their preferences are” (2008, p. 118). They cautioned that this should be explored not only in relation to types of tools, but also in terms of the ways that they are used, as staff and students may have different purposes in mind. More recently, Hargittai’s U.S.-based study found “considerable variation exists even among fully wired college students when it comes to understanding various aspects of Internet use” (2010, p. 108).

The conceptualization of young people as digital natives or part of a Net generation is dangerous as it can mislead educators into believing that all young learners have a strong preference for all things digital and need little if any guidance in using technology, which is not true. As Bennett et al. (2008) point out, skills in one area of digital technology should not be seen as evidence that learners can handle other online tasks without support. They go on to warn that “students’ everyday technology practices may not be directly applicable to academic tasks, and so education has a vitally important role in fostering information literacies that will support learning” (Bennett et al., 2008, p. 781). This fits
in with what Pegrum (2014) refers to as a “weak nativist perspective”. This perspective promotes the following concepts:

Many young people have developed certain digital habits that, if harnessed appropriately, give teachers a base on which to build and foster 21st century literacies. In this view, many students are *tech-comfy*, that is, adept at using new technologies for social and entertainment purposes, but need guidance on becoming *tech-savvy*, that is, skilled in using the same technologies for academic purposes, and able to view these technologies with a critical eye. (Pegrum, 2014, p. 39)

What this means is that educators may be dealing with learners who have skills and knowledge of using certain digital technologies for certain tasks, but that they need support to develop the skills required to harness the power digital technologies can offer as an educational aid. In an educational context, this is where social constructivism fits in as more experienced and knowledgeable teachers and peers can be involved in actively modelling effective use of digital technologies for L2 acquisition and guiding those who have less understanding and skill towards a deeper understanding and new learning opportunities.

### 2.5.2 Digital Technology in Education

Evidence above shows that educators are not faced with homogenous Net generations of digital natives, but this does not mean that digital technology does not have a place in learning and many studies have been conducted into its impact at all levels of education. For example, it has been examined in preschools (Davidson, Given, Danby, & Thorpe, 2014; Thorpe et al., 2015), primary schools (Schellinger et al., 2017; Kucirkova & Falloon, 2017), secondary schools (Homer, Plass, Raffaele, Ober, & Ali, 2018; Staley & Freeman, 2017) and higher education (Alrasheedi, Capretz, & Raza, 2015; Farmer, Yue, & Brooks, 2007; Junco, Heiberger, & Loken, 2011; Selwyn, 2016; Wakefield, Frawley, Tyler, & Dyson, 2018). As my study deals with higher education, studies at that level are of particular interest.

Although my research context specifically focuses on L2 education, there is much to be gained by looking at studies that examine the use of digital technologies beyond this field, in other areas of higher education. Of particular interest are studies on students who support their learning with tools that were not designed as pedagogical tools, as this is something I expected learners in my study would do. I am also interested in those tools that contribute to learning through social interaction. From the many studies that address
these points, two exemplars have been selected for representative purposes. First, a study with 125 pre-health professional majors at a university in America showed a link between Twitter use and academic performance (Junco, Heiberger, & Loken, 2011). In this study, 70 students used Twitter for academic and co-curricular discussions while the other 55 did not use Twitter in relation to their course. The results show that the group that used Twitter “had a significantly greater increase in engagement than the control group, as well as higher semester grade point averages” (Junco et al., 2011, p. 119). Success was partially due to increased accessibility that students had to staff and the real-time responses that Twitter can facilitate. For example, a teacher asked if anyone was interested in forming a study group and, through Twitter, a time and place was organised, with a face-to-face study group taking place that very evening. This suggests that online tools can be used successfully if users have easy access (for example, through a smartphone app) as this encourages timely responses, which can in turn facilitate more interaction.

In the second study, digital technology was used to encourage reflection and topic-based interaction. Farmer, Yue and Brooks (2007) reported on the impact of blogging on a lecture-style cultural studies course at an Australian university. Students were required to reflect on course content and share ideas through their blogs. Over half of the students did so at least as many times as required, with many making additional contributions. In addition to addressing course-based goals, most students noted that the blogs helped them to connect with their peers. As one student noted, “I really thought it helped me get a further grasp on the ideas we were discussing and it allowed me to really feel as though I was part of a group in uni[versity]” (Farmer et al., 2007, p. 268). While the impact that “being part of a group in uni[versity]” had on subject-based learning was not measured in this study, building social relationships with classmates may have led to increased course-based interaction outside of the project, which in turn may have facilitated further development of the students’ skills in that course. As these two examples show, digital technology can enhance learning in general education and strengthen social connections and students’ sense of belonging; benefits that are likely to be found in wider learning contexts, including in language learning settings. In the section below, the focus narrows to explore the range of benefits digital technology can offer in foreign language education.

2.5.3 Using Digital Technology for Language Learning

There is a substantial body of studies that report on the use of digital technology in SLA
Digital technologies can be used to target a variety of language skills. One area that has been widely researched is their impact upon L2 reading. For example, in a blogging project that required ELLs in Taiwan to read authentic texts online, W.-I. Lee (2013) found that almost all participants reported that they became more interested in reading in English online, developed better reading skills and became faster readers. In another reading study, Y.-F. Yang and Lin (2015) found ELLs who made use of an online note-taking tool made significantly more progress in their reading comprehension than those who were only offered paper-based note-taking options. The progress of the experimental group was attributed to the online system facilitating collaborative work and offering increased opportunities for students to view others’ learning strategies in action through reading logs.

In terms of writing, benefits have been found in using technology collaboratively. For instance, in a study with Turkish ELLs, Ciftci and Kocoglu (2012) found that students who gave each other feedback through blogs made more writing gains than those who did it face-to-face. This may have been due to the online medium taking pressure off students when they were providing feedback, making it easier to comment without fear of being judged harshly by others. Gedera’s research supports this notion, noting that some students at a Malaysian university found it less stressful to provide feedback on their peers’ written work online “as they did not need to see the person face-to-face” (2012, p. 27). Another noteworthy advantage of using digital technology for peer feedback is that it can connect people who can help each other but do not have the opportunity to meet face-to-face, as exemplified in a Spanish-English exchange that was reported by García-Sánchez and Rojas-Lizana (2012). In that study, English learners in Spain and Spanish learners in Australia were brought together through a blog to help each other improve their writing. Text written in students’ L2 was reviewed by students who were L1 speakers, with results

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Data collection for these four studies was completed before data collection for my doctoral work commenced. These studies do not involve participants from the present study.
showing evidence of both language gains and learner motivation.

However, not all tools are equally fit for the writing tasks teachers are attempting to support their learners with, as shown in a study by Yeh et al. (2011). In their study on collaborative writing, students were directed to communicate about their writing tasks in groups with either the chat tool Messenger or an online system called Process-Writing Wizard which was developed to help ELLs to collaboratively write technical articles. The latter system had inbuilt process-oriented scaffolds and also incorporated an online chat room to allow users to participate in real-time collaboration. Students who used Process-Writing Wizard produced writing that was evaluated more highly in terms of content and organization. An analysis of chat data showed that the students using Messenger spent more time socialising than collaborating on their writing, highlighting the gap that can be created when different tools are used for tasks.

Using digital tools for speaking and listening activities has also been shown to provide important affordances. For example, TED Talks, a website and app which provides talks on a wide range of topics, has been credited with improving learners’ listening comprehension and familiarising them with a diverse range of English accents (Takaesu, 2013). Furthermore, a study that was conducted with university-level ELLs in Japan showed that the voice micro-blogging platform Bubbly provided valuable opportunities for students to extend speaking practice beyond their lessons, with the researcher noting that the “results clearly show that the application’s social and technological affordances help to raise students’ level of motivation, engagement and confidence” (Davies, 2015, p. 213). Another advantage of web-based technology is that it can bring speakers of different cultural and linguistic backgrounds together to talk in real time through telecollaboration. There are studies on areas such as topic management (Barron & Black, 2015), linguistic and intercultural competence (Tian & Wang, 2010) and the use of different communication strategies to reach intercultural understanding (van der Kroon, Jauregi & Thije, 2015). Online tools can also have a positive impact on more discrete skill areas, for example pronunciation improvements in a case study with a learner who used automatic speech recognition (Polger, 2015). However, as noted in the section on writing development, care needs to be taken when choosing tools to replicate studies as even similar tools may not be equally useful. P. Daniels and Iwago (2017) found that Google Speech Recognition was more accurate than Siri at transcribing the English speech of ELLs at a Japanese university, highlighting a possible difference in the gains that could be expected from using these tools.
The studies above have been divided into different skill areas, but it is also common for studies to investigate how online tools can assist students with multiple skills simultaneously. To give an example, Yen, Hou and Chang (2015) reported on a group of 42 students in Taiwan who used a social networking service and video-conferencing to do online role-plays in English. The study drew on task-based learning, and to complete the assigned task, students were required to interact in writing via Facebook and orally through Skype. A comparison of pre-test and post-test writing and speaking scores showed a significant improvement in both areas. The researchers also conducted a content analysis of the students’ interactions on Facebook and Skype and found evidence of peer-correction and self-correction in areas such as pronunciation, vocabulary, grammar and spelling, which gives further evidence of the wide range of areas that digital technology can help students target.

In recent years, interactive games have also been used to work on multiple skills, giving language learners the opportunity to read, write, listen and speak in real time (Peterson, 2010a). Rankin, Gold and Gooch (2006) completed a small-scale study with four ELLs who used the massively multiplayer online role-playing game (often shortened to MMORPG, MMOG or MMO) Ever Quest 2. While playing this game the students were able to engage in real-time chat (written and oral) in their L2, English. The experience was particularly beneficial for students who had higher English levels, as an analysis of each participant’s online record showed that the amount of interaction increased proportionately with the participants’ English ability. Another advantage that came from playing the game was that frequently used vocabulary was acquired. An improvement in vocabulary acquisition through games was also reflected in Ranalli’s (2008) study, which showed an increase in post-test vocabulary scores after students played The Sims while using accompanying supplementary materials. Furthermore, in a study with ELLs at a Japanese university, Bolliger et al. (2015) found that learners perceived many advantages to using digital games to learning English. In their study, “Respondents thought the use of games would motivate students to study, attend classes, and participate more actively during sessions. Students believed that their use would increase interest in and enthusiasm about English-language learning” (Bolliger et al., p. 397). Their respondents felt digital games would increase ELLs’ motivation because such tools are enjoyable to use and they would not feel like they were studying. They also identified potential language-based gains, such as vocabulary acquisition.
Many of the studies above focus on the benefits obtained when teachers and researchers introduced tools and tasks to language learners as part of their language courses, as the majority of published research that relates to language learning and technology use falls within these parameters. However, there are certainly benefits that come from learner-led activities and learning that takes place beyond language courses, and at the time the proposal for my study was being written, there was a small but growing body of research that focused on language learners’ autonomous use of digital technology outside of formal language learning contexts. For instance, a study by Lam (2004) reported on the benefits a bilingual chat room offered two Chinese high school students who immigrated to America. Despite having lived in America for three years before the study commenced, the girls had few opportunities to communicate in English with their peers at school. They had been laughed at when they attempted to use English so felt uncomfortable using it with others. However, their relationship with English took a positive turn after they found a Chinese-English chat room and started participating in it regularly. Both girls, who code-switched between English and romanized forms of Cantonese in the chat room, became more comfortable using English outside of the chat room after participating in it. Lam (2004) argues that “the girls’ language experiences in the US affected how they approached and participated in the chat room, and their language practices in the chat room in turn influenced their relation to the English language in the USA” (2004, p. 59).

In another study, Lam (2000) showed how a webpage a Chinese ELL autonomously set up helped him to benefit in ways that he had not in his formal education, explaining:

Whereas classroom English appeared to contribute to Almon's sense of exclusion or marginalization (his inability to speak like a native), which paradoxically contradicts the school's mandate to prepare students for the workplace and civic involvement, the English he controlled on the Internet enabled him to develop a sense of belonging and connectedness to a global English-speaking community. (2000, p. 476)

Other studies that focus on digital technology use also include the experiences of language learners who do not learn their target language through formal education. One study which contributes to this area is a six-country European study by Antoniadou, Canals, Mohr and Zourou (2011), which looked at the informal language learning practices of 258 youths. They defined informal learning as something that occurred beyond formal education settings, including contexts such as “at home, during conversations with friends and members of the close environment, and which can take place offline or online. It is not formally structured by institutions or organizations in
terms of time, support, and objectives” (Antoniadou et al., 2011, p. 13). Forty-one percent of participants reported using digital technology (e-mails, websites, games, chat, social networking sites and/or YouTube) in a foreign language every day and a further 27% did so weekly (Antoniadou et al., 2011). The vast majority of the participants (80%) felt that social media and Internet-mediated communication helped them to improve their foreign language skills. The Internet provided significant opportunities for these learners to use their foreign languages and for some it was the only point of contact. For example, one French participant who identified herself as self-taught used the Internet every day to increase her vocabulary and practice using several foreign languages. She used tools such as MSN, chat rooms, Facebook and YouTube to communicate in English, Spanish, Russian and German. In the same year as Antoniadou et al.’s study was published, Benson and Reinders (2011) published a book called Beyond the Language Classroom to fill their perceived gap on research in this area. Some chapters provided evidence of the role out-of-class use of digital technology played in shaping language learning. For example, one chapter provided evidence of language development through immersion in virtual gaming environments and interaction with online peers (Kuure, 2011) and another showed the benefits tandem learning (i.e. language exchanges) provided when learners interacted through email, chat and an online forum (Stickler & Emke, 2011). Another chapter (Bailly, 2011) reported on a study at a vocational school that prepared learners for work in the building industry, showing how a program for out-of-class study helped them to gain skills in languages that were not taught at their school by providing advisory sessions, online learning materials and opportunities to speak with people fluent in their target language. All of these studies suggest that great benefits can be gained through autonomous, out-of-class learning, with some highlighting the role institutions can play in helping learners onto this path.

While the studies above indicate that digital technologies can offer a plethora of advantages to language learners, this does not mean they are always the best choice as learning tools. One reason is that there have been numerous studies in which digital technologies have not produced the expected benefits when adopted. For example, in an online English-Japanese language exchange between learners in Australia and Japan, Tanaka-Ellis (2011) found that message threads were often incoherent and requests for information from language partners were sometimes ignored, limiting their worth as learning tools. In another example, Schenker (2017) found no statistically significant differences in the speaking test scores of German learners in an American university who
participated in a telecollaborative video chat project with L1 German speakers, and their non-participating peers in the control group. Furthermore, in a meta-analysis of over 350 studies that compared using new technologies with more traditional materials and methods for L2 learning, Golonka et al. (2014) found that while there was evidence that the use of digital technologies enhanced aspects such as learners’ output, interaction and motivation, claims of greater efficacy with digital technologies than traditional means cannot be made across the board. Due to this they “advise caution before being led down the golden path of technology” (p. 93) and remind readers that pedagogical goals must be central when deciding whether or not to use technology. Another key reason that digital technologies may be avoided is that using new technologies can lead to a sense of overload for both teachers (Allan, 2009) and students (C.-Y. Chen, Pederson & Murphy, 2012), which can lead to resistance in uptake. Learning to operate new technologies and effectively exploit them for L2 teaching and learning takes time and effort, and if there are many different tools to use it is understandable that users may feel overwhelmed.

The points made above about the need to ensure tools match learning goals and to avoid user over-load certainly deserve attention, particularly in the context of autonomous learning as learners are likely to have limited support. However, the potential of digital technology for ELLs in Japan is too great to ignore and warrants further exploration.

2.6 Implications for the Study

The literature review offers important insights and highlights knowledge gaps that this study may address. First of all, it is apparent that sociocultural theory has had a significant influence on SLA and that it is worthwhile embracing concepts and frameworks that extend from it, such as the integral role of social interaction upon development, and the valuable role of the ZPD and CoPs. Therefore, in this study, it would be beneficial to encourage the formation of a CoP with students by building learning opportunities through social interaction in in-class and out-of-class learning activities, and facilitate interaction among those who could be classified as novices, experts, or something in between. Furthermore, effort should be made to support students in their ZPD directly, both as a more capable tutor or expert, and by facilitating social interaction between students who are recognised as more and less capable. A class cannot be called a CoP simply because students all study the same subject, but as the literature showed, when groups “share a concern or a passion for something they do and learn how to do it better
as they interact regularly” then it can become a CoP (Wenger-Trayner & Wenger-Trayner, 2015, para. 4). With the teacher taking a facilitative role in guiding interaction, it seemed likely a CoP could be formed within this study.

The second important factor highlighted by the literature review is that there is much interest in and research on learner autonomy, motivation and the use of digital technologies in language learning, but not enough is known about how classroom teachers can support students in these areas. The review showed that learner autonomy does not mean that students should be simply left to learn on their own; rather, it highlighted a role for teacher support. However, at the time of this study, empirical studies on learner autonomy in Japan tended to centre around SALCs and self-directed learning courses, neither of which could be considered widespread in Japan. What this means is that little was known about how to support students in mainstream classes, so conducting a study in a mainstream English class could contribute to filling this gap. In terms of motivation, there has been a lot of research into this area in SLA, but studies generally focus on particular motivational theories or limit their focus to how certain tools and tasks motivate learners. Although doing so would certainly be complex and ‘messy’, to gain a deeper understanding of motivation it appeared there was a need for empirical studies that explore it from multiple perspectives. In terms of digital technology use for language learning, the literature revealed that there are many benefits, but signalled that caution is needed when considering learners’ technological capabilities and preferences, particularly for educational purposes. The majority of published research in this area reported on tools that were chosen by teachers and researchers and assessed for the value they brought to learners. Far fewer studies focused on multi-tool studies with tools that students themselves chose, and while there was evidence of research on students’ autonomous use of digital technologies for language learning, it could be said that the area was still relatively new and that more studies would be valuable. Drawing these points together, the literature review revealed that conducting a study that examined learner autonomy, motivation and language learning through digital technology would make a valuable contribution, particularly if it examined the impact teacher support has upon these areas and took a broad view when seeking to understand motivation.
2.7 Chapter Conclusion

This chapter has positioned my research within the existing body of work within SLA and the wider field of education. In this study, I held the dual role of teacher and researcher, so the chapter started with an overview of sociocultural theory, learner autonomy and motivation theories, which underpin my understanding of how I should teach and research, as well as activity theory, which I chose to draw on as a researcher to gain a full understanding of my participants and the information they shared. Empirical studies of the use of digital technology in general education and L2 learning were also examined, raising questions about the conceptualisations of a new breed of technologically fluent digital natives or Net generation. Although some limitations of using digital technology for L2 learning were identified, the literature review highlighted many benefits, so their potential for ELLs in Japan warrants further exploration. In the final section, the implications of the literature review for my study were outlined, identifying a gap that could be addressed. This gap showed a need for a study that draws together learner autonomy, motivation and language learning through digital technology, and examines how teacher support influences these areas. My study was designed with this gap in mind. The next chapter elaborates on this by addressing key aspects of the research methodology.
Chapter Three: Research Methodology

3.1 Introduction

This chapter begins by outlining the methodological principles that underpin this mixed methods case study and providing a rationale for the research design. Following this, salient details about the research setting and participants are provided and my dual role as researcher and participant is examined. After that, data collection methods, preparation of data for analysis, and data analysis methods are explained in detail. The chapter ends by addressing measures that were taken to provide trustworthy data and ethical considerations that were at the forefront of the study.

3.2 Guiding Methodological Principles and Research Design

Research paradigms or approaches are thought to reflect an ideology of reality (ontology) and extend from certain beliefs about truth and knowledge (epistemology), and due to this they are associated with particular ways of collecting and analysing data (Duff, 2010). Educational research has traditionally been guided by two foundational paradigms—qualitative and quantitative methodology—with a third option that blends these—mixed methods methodology—emerging more recently. The data collection and analysis methods employed in studies have also traditionally been broadly categorised as qualitative or quantitative, and when a study uses a combination of the two, the term mixed methods is also used. On the most simplistic level, quantitative research methods are characterised by the quantification of data, while qualitative research methods tend to rely on words. Creswell and Plano Clark identify mixed methods as a research design which “focuses on collecting, analyzing, and mixing both quantitative and qualitative data in a single study or series of studies.” (2007, p. 5). This is echoed by Johnson and Onwuegbuzie, who define it as “the class of research where the researcher mixes or combines quantitative and qualitative research techniques, methods, approaches, concepts or language into a single study” (2004, p. 17).

There was initial resistance to researchers combining qualitative and quantitative methods and to some extent it lingers to this day. Critics in the 1970s and 1980s claimed that “the epistemological differences between the qualitative and quantitative paradigms made
them fundamentally incompatible” (Symonds & Gorard, 2008, p. 3) and methodology books still tend to rigorously divide the kinds of data collection and analysis methods that can be used for qualitative and quantitative studies. However, there has been much greater recognition of mixed methods since the turn of the century, with it gaining more ground in methodology books and research articles. As Punch pointed out in his extensive review of research methods several years ago, “there are now both substantial bodies of mixed methods methodological literature, and of literature reporting mixed methods studies in the research journals” (2014, p. 311). A key example of this is the *Journal of Mixed Methods Research*, which is dedicated to exploring the combination of qualitative and quantitative research. Recent studies on education in this journal show how the mixed methods approach has been successfully employed to gain insight into areas such as “students’ general knowledge of the learning process” (van Velzen, 2018, p. 182) and Spanish teachers’ professional development with web-based technologies (Bustamante, 2019).

Hall (2013) has identified three possible ways researchers have attempted to counter the criticism mixed methods methodology has faced over perceived paradigmatic problems. He groups them into three basic categories: an a-paradigmatic stance, which ignores arguments about paradigms, a multiple paradigm stance, which rejects the notion that alternative paradigms are incompatible, and a single paradigm stance, which asserts that one paradigm can be accommodated by both qualitative and quantitative research. There have been calls for mixed methods researchers to adopt and justify their choice of paradigm (Alise & Teddlie, 2010; Shannon-Baker, 2016), yet Alise and Teddlie’s (2010) analysis of 600 mixed methods articles showed that it was exceedingly rare for the philosophical or paradigmatic grounding to be explicitly stated. These omissions align with Hall’s (2013) definition of the a-paradigmatic stance, which either does not acknowledge any stance at all or argues that methodology and epistemology can be independent of each other.

This study is grounded in social constructivism, which takes the epistemological perspective that truth and meaning are constructed through social interaction as subjects engage with the world and each other (D. E. Gray, 2014). Creswell notes that knowledge claim positions for constructivism lean towards understanding and social and historical construction (2003, p. 6). In this study, I sought to gain an understanding of the autonomous, out-of-class language learning practices ELLs engaged in, their use of digital technologies for language learning, and how formal education influenced those
practices. I felt this could be best achieved by allowing students to tell and show me themselves, through their own words and actions. I mainly sought to do so by giving in-depth participant perspectives and examining the influence of social and historical influences by using cultural historical activity theory (CHAT) as an analytical tool (Engeström, 1987). As I epistemologically identify with social constructivism, this study deals with rich, holistic data (Miles, Huberman, & Saldaña, 2014) and provides thick descriptions (Geertz, 1973) of the experiences of the participants. However, my interests also lay in understanding how those participants’ experiences fit within in the wider context of their peer group and due to this it was also beneficial to have quantitative data to address the research questions. Due to this, the study values both qualitative and quantitative data. I have stated that the foundations of this study lie within social constructivism, but reject the notion that also drawing on quantitative data nullifies this position. Therefore, my methodological stance could be described as a-paradigmatic (Hall, 2013) as it separates the epistemological underpinnings from my choice to use mixed methods methodology.

The mixed methods research design was determined before data collection began, which means that it has a fixed mixed methods design (Creswell & Plano Clark, 2011). Creswell (2003) notes that “in mixed methods research, investigators use both qualitative and quantitative data because they work to provide the best understanding of the research problem” (2003, p.12). They highlight that this should be done in a thoughtful way, arguing that “researchers need to establish a purpose for their “mixing”, a rationale for the reasons why qualitative and quantitative data need to be mixed in the first place” (2003, p. 12). My choice to do so was guided by my research questions. This study aimed to develop a deeper understanding of how to best support learners’ autonomous use of digital technologies, especially online tools, beyond their formal learning environments and was guided by the following four questions:

1. To what extent do ELLs in Japan use digital technologies to support their language learning?
2. How does teacher promotion of digital technologies influence ELLs’ autonomous, out-of-class learning practices?
3. What are ELLs’ perceptions of digital technologies before and after teacher-led promotion of their use?
4. What motivates or discourages ELLs in Japan from using digital
Chapter Three

Mixed method design was selected as it was the most suitable option for accessing the type of data needed to fully answer the research questions. All of the questions could be answered in surface-level ways through quantitative data collected through questionnaires. The level of understanding that is sought in this study requires more depth than statistics alone can provide yet simultaneously aims to look at the questions from a wider view than could be achieved through the collection of qualitative data from a very limited number of participants. Bryman (2006) notes the important role that employing mixed methods can play in contributing completeness to the account of the area under study and in explaining findings that are generated by the different methods. In this study, quantitative data were collected through questionnaires to gather demographic information about the participants, gain broad insights into the research questions, and gather information that could be used to shape interview questions. The qualitative data were collected to allow the research questions to be addressed more comprehensively. They were built into the research design to gain access to students’ thoughts, experiences and actions in their own words and to allow for analysis of the effects of course-based social interaction on learning practices and attitudes as they evolved during the writing course. This combination of data collection methods seemed most likely to help achieve a more complete understanding of the areas the research questions addressed.

When conducting mixed methods research, it is not only important to establish the purpose for mixing, it is also important to identify the approach taken. Creswell and Plano Clark (2011) point out that mixed methods research can take on a typology-based or dynamic approach. They define a typology-based approach as one that “emphasizes the classification of useful mixed methods designs and the selection and adaptation of a particular design to a study’s purposes” (Creswell & Plano Clark, 2011, p. 55). In contrast, a dynamic approach focuses “on a design process that considers and interrelates multiple components of research design rather than placing emphasis on selecting an appropriate design from an existing typology” (Creswell & Plano Clark, 2011, p. 59). This study takes a dynamic approach, combining qualitative and quantitative research methods to investigate the research questions with multiple data sources through the use of questionnaires, course work and interviews.
Mixed methods were chosen for this study to bring to light aspects that would be lost by restricting it to the qualitative-quantitative divide. Practitioners have long recognized the potential for such losses. Burke Johnson and Onwuegbuzie, for example, highlighted gaps between theory and practice, noting the long history mixed methods has in research practice “because practicing researchers frequently ignore what is written by methodologists when they feel a mixed approach will best help them to answer their research questions. It is time that methodologists catch up with practicing researchers” (2004, p. 22). In this study, it is clear that a mixed method approach is most appropriate for the depth and breadth of understanding needed to answer the research questions.

3.2.1 Case Study Methodology

Research through case studies has “been around as long as recorded history" (Flyvbjerg, 2011, p. 302) and is used extensively in fields from education and psychology to economics and medical science (Flyvbjerg, 2011). Influential early adopters of case studies in educational research contexts include Stake (1978, 1995, 2008), Yin (1984, 2014) and Merriam (2001; 2009). For Stake, a case study is intensive analysis of a bounded system, with the researcher determining the limits of the boundaries. Merriam’s work aligns with Stake’s in this regard, defining a case study as “an in depth description and analysis of a bounded system" (2009, p. 40). Yin echoes their calls for depth, defining as a case study as “an empirical inquiry that investigates a contemporary phenomenon (the ‘case’) in depth and within its real-world context” (2014, p. 16). While there are differences in the stances of these three researchers, they share common ground in advocating case studies as a way to understand complex phenomena in naturally occurring contexts.

It has been suggested that case study research is “useful in providing answers to ‘How?’ and ‘Why?’ questions” (Rowley, 2002; Yin, 2002). The overarching aim of this study is to understand how to best support students’ autonomous use of digital technologies for English language learning beyond their formal learning environments. This aim developed out of a perceived need for such support in my workplace, which became the research site, but also because I was more broadly questioning the role of classroom teachers in offering such support. Stake (1995) separates case studies into two broad categories: intrinsic and instrumental. Intrinsic case studies are defined as those in which the researcher has a vested interest, those that researchers choose “not because by
studying it we learn about other cases or about some general problem, but because we need to learn about that particular case” (Stake, 1995, p. 3). In contrast, instrumental case studies are those for which “we will have a research question, a puzzlement, a need for general understanding, and feel that we may get insight into the question of studying a particular case” (Stake, 1995, p. 3). In my study, it is difficult to separate these two notions as I was familiar with the research site before conducting the study and felt compelled to understand how teachers within that site could support learners. In addition, I also believed the results may provide insight into a more general understanding that could pave the path to new studies on this area in other contexts. Therefore, my study cannot be concretely defined as either intrinsic or instrumental, but rather driven by both.

This research centres around a class of students at Emiha University. Case studies are predominantly concerned with individual units, with a key step in the research process being “the demarcation of the unit’s boundaries” (Flyvbjerg, 2011, p. 301). In this study, the case was initially bounded to the 26 students who were enrolled in a writing course that I taught at Emiha University from April to January 2014. However, when follow up questionnaires were administered 10 months and 16 months later, four students dropped out of the study, leaving 22 students whose data could be used for longitudinal comparisons. These 22 students are referred to throughout this thesis as longitudinal case study participants. Data collected from the four students in my writing class who completed Questionnaire One but not Questionnaires Two and Three are not considered to be part of my case, so their data are excluded from longitudinal comparisons but included in the data set for Questionnaire One.

Six students were willing to participate in interviews and permitted part of their coursework to be used for research purposes. Their qualitative data allowed for a more nuanced exploration of the research questions at an individual level and the complexity that case studies are known for emerges through analysis of data gathered from these six students. Ideally, all of these students would have been drawn from the study’s 22 longitudinal case study participants, and five of them were. However, one student, Rei, completed one interview and allowed her coursework to be used as data but was unable to complete Questionnaire Three and the follow-up interview. As she did not complete all questionnaires, her data is not included in the longitudinal case study. However, her valuable contributions through her interview and coursework could not be disregarded, so she was retained as a participant for individual case study analysis.
While case study methodology lends itself well to this study, a key criticism of case studies is that they cannot be widely generalised or externally validated (D. Byrne & Ragin, 2009; Miles et al., 2014; Woodside, 2010). It is indisputable that generalizability and external validity are limited in this study, but it is possible for cases to be generalised to a degree through naturalistic generalization. Melrose explains how readers make naturalistic generalisations, noting, “As readers recognize similarities in case study details and find descriptions that resonate with their own experiences, they consider whether their situations are similar enough to warrant generalizations” (2010, p. 599). This suggests that describing my case may allow others to notice similarities between my case and cases that interest them, then draw naturalistic generalisations. Accepting this, effort has been made to ensure that this thesis provides enough rich descriptions to allow others to make naturalistic generalisations, in order to make it possible for this study to make a valuable contribution beyond the research setting.

3.3 Research Setting

This section provides an overview of the research setting from the wide vantage point of the Japanese educational system and the more localised perspective of the research site at which it was conducted.

3.3.1 A Historical Overview of English Language Education in Japan

As this research was conducted in Japan, a historical overview of formal English education in this country will facilitate better understanding of my research context, both in terms of how the English language is studied and the role digital technologies have in this. The English has a long history in Japan, with some limited contact with it dating as far back as the 1600s, but it was not taught until the early 1800s when a British ship arrived in Nagasaki, and interpreters were ordered by the government to study English (Iino, 2002). After Japan entered into a Treaty of Peace and Amity with the United States of America in 1854 (Hosoki, 2011) and the Japan-U.S. Treaty of Amity and Commerce in 1858 (Iino, 2002), English spread more widely into Japanese society. It was officially added as a junior high school and high school subject in the 1890s and taught by foreigners in an effort to modernise Japan (Iino, 2002).

After a period of nationalism in which English was rejected, the early 1900s signalled the start of English being taught by Japanese teachers who had studied abroad, and “Juken Eigo (English for the purpose of the entrance examination) became the main goal of
learners rather than English for communication” (Iino, 2002, p. 82). This meant that the focus moved towards memorizing grammar patterns and vocabulary. While the main focus in secondary school education continues to be on written university exam preparation, the government began looking for ways to directly address oral communication skills in the 1980s. In 1987, three government ministries set up the Japan Exchange and Teaching program (JET program). This program brought foreign teachers to Japan to work as Assistant Language Teachers (ALTs) in public junior and senior high schools. It began with 813 ALTs from the United States of America, the United Kingdom, Australia and New Zealand, and at the time this study began, there were 4,000 participants from 26 countries (Council of Local Authorities for International Relations, 2013).

Throughout the 1990s, oral English skills continued to be highly valued, as “the national curriculum guideline stated that senior high school students must pass one oral English course to graduate” (Teranishi, Saito, Sakamoto, & Nasu, 2012, p. 228). Around this time, communicative language teaching (CLT), which is a Western approach grounded in sociocultural theories of learning and teaching, gained popularity in public schools. Nishino pointed out that in the two decades after 1989, the government had “attempted to promote higher achievement in English communication skills among secondary school students by urging teachers to incorporate CLT into their lessons” (2008, p. 28). CLT moved language education away from independent translation and towards interactive communication. It aims to develop what Hymes (1972) called learners’ “communicative competence”. As Hymes argued:

We have to account for the fact that a normal child acquires knowledge of sentences not only as grammatical, but also as appropriate. He or she acquires competence as to when to speak, when not, and as to what to talk about with whom, when, where, in what manner. In short, a child becomes able to accomplish a repertoire of speech acts, to take part in speech events, and to evaluate their accomplishment by others. (1972, p. 277)

For language learners to emulate this, linguistic competence is not enough, as it forms only part of their communicative competence. Canale and Swain (1980) identified three main components to communicative competence: grammatical, sociolinguistic, and strategic competence. Several years later, Canale (1983) added discourse competence to this definition. The pursuit of communicative competence brought with it a pedagogy that sought to enhance oral skills through face-to-face group work and games. CLT’s focus on communicative competence aligned well with the government’s goals, but there are several factors that have meant implementing this in Japan has not been universally seen as successful or desirable. One is that it requires high levels of oral
proficiency from teachers, and historically the Japanese teachers responsible for English language classes have not all been proficient English speakers. In part, this was addressed by hiring teachers from abroad to assist, either through the JET program mentioned above or through other arrangements. However, even with a teacher who is fully proficient in English, CLT has not always been suitable. Nishino identifies some key reasons for this, noting CLT was designed for English language study in Western contexts where “English teachers support a skill-based, discovery-oriented, collaborative approach to education (Holliday, 1994) and where classroom language learning usually takes place in small classes through group and pair work” (2008, p. 29). She points out that conditions in Japan differ from these contexts, with larger, more teacher-centred classes in which inter-student communicative needs in the L2 are limited (Nishino, 2008). Task-based language teaching (TBLT), which focuses on communicating for task achievement, has also been relatively popular in Japan. However, while there are many proponents of TBLT, (Ellis, 2003; Motteram & Thomas, 2010; Nunan, 2004; Peterson, 2010b; Stockwell, 2010; Thomas & Reinders, 2010), students’ tendency to over-use their L1 when doing tasks reduces opportunities for L2 communication, so measures that address this are required if it is to be successfully employed (Lowe, 2012).

CLT and TBLT have not disappeared from English education in Japan, but educators continue to face the challenges outlined above and the skills they focus on are not central components of the all-important entrance examinations. Instead, the grammar-translation method, often referred to by the Japanese term “yakudoku”, has dominated English education in Japan (Nishino, 2008). As Nishino explains, “The main classroom activity in this method is word-by-word translation of written English into Japanese. The teacher gives grammatical explanations in Japanese; students have few chances to vocalize English except when they practice reading by repeating after the teacher” (2008, p. 30). The English language section of university entrance examinations continues to be mainly reading and grammar based, so the grammar-translation method continues to be used. As such, English language education at secondary schools tends to focus on non-communicative skills and it is not uncommon for new entrants to university to struggle to hold a short conversation in English despite having studied it for six years.

When students enter university, their formal English education is generally not over, regardless of the area they choose to major in. Although English language subjects are not officially required by the government at university level (Japan MEXT, 2014a), they
are a requirement within almost all degree-bearing undergraduate courses (Porter, 2018). The number of English language units required for students at tertiary level varies by university and course, but looking at tertiary education as a whole, the number of contact hours is generally low. To give an example, first-year students in the English Department at the research site were only required to take four 90-minute lessons a week for English study (annual total of 168 hours of class time) and most students in other departments were only required to take three English subjects (126 instructional hours per year). With such limited class time, English development could be expected to be slow. In fact, the Common European Framework of Reference for Languages suggests that 200 instructional hours are needed to progress from one of their global scale proficiency levels to the next (Cambridge Assessment English, 2018), so even with a year of classes, students could not be expected to noticeably improve just by taking the required lessons in the courses listed above. From the second year onwards, the number of required English language subjects at tertiary level typically decreases, making improvement through required classwork alone even more challenging. Universities generally offer students elective English language subjects and many of the eager students do enrol. Logistically though, when classes are not compulsory there can be schedule clashes and limits on the number of students who can register for subjects, so the number of classes students can take remains low for some learners.

3.3.2 The Research Site

This research was conducted within the English Department at Emiha University, a private women’s university in Tokyo, Japan. The university is relatively small, with approximately 4000 students studying at undergraduate level, including around 520 in the English Department. Well over 90% of the students enrolled at the university at the time of the study were Japanese, with most classes having no non-Japanese students. The vast majority of students in the English Department were studying at undergraduate level, undertaking a four-year degree. While these students majored in areas such as British literature in the latter part of their degree, English was their L2, so the majority of them needed considerable support to develop the language skills required to graduate. In the first year of their degree, they undertook 168 instructional hours of English study. Each semester they took two subjects that focused on building oral production and listening skills, one that focused on reading skills, and one that focused on writing skills. The reading classes were taught using a mixture of Japanese and English, and the other
subjects were taught in an English-only environment. While out-of-class support for English development was available in several ways, faculty members in the English Department had discussed the need for additional support on multiple occasions, and this, coupled with two years of watching students struggle in English, had a strong influence on my decision to make pedagogical changes and conduct research at this site.

Before commencing this project, I had taught the English writing course, which is the course this research takes place within, for two years at Emiha University. This two-semester course formed the first building block in a framework that aimed to equip students with the skills they would need to complete fully-referenced 5,000- to 7,000-word graduation essays in English. Students generally entered university having written English texts of no more than a few hundred words, and many lacked knowledge on the basic structure of English academic writing. To enable students to meet the challenges required in the fourth year of their degree, the English Department had designed a three-year writing program, as depicted in Figure 3.1.

![Figure 3.1. Overview of the English Department’s writing program.](image-url)

The first-year program, which is the focal point of this study, began by teaching students the basics of paragraph writing. In other words, they were taught how to structure their paragraphs correctly and learnt how to write appropriate topic sentences, supporting sentences and concluding sentences. All classes learned through textbook-based instruction and writing assignments, with my classes also adding computer-based instruction. The program employed a three-draft process writing approach which included peer and teacher feedback, so peer feedback training was also incorporated into the first-
year program. After completing two single-paragraph assignments individually, students completed a double-paragraph assignment in pairs or triads, then moved onto sole-authored essays. This study was conducted with students who began the first-year writing program in April 2014, as outlined in the section on participants that follows.

3.4 Participants

This study collected data from two types of participants; those who only completed one questionnaire (Questionnaire One) and case study participants. This section provides basic demographic information on Questionnaire One participants then outlines the boundaries of the case study and introduces case study participants.

3.4.1 Participants in Questionnaire One

Of the 130 students enrolled in the first-year English writing course in Emiha University’s English Department in April 2014, 128 agreed to complete Questionnaire One. This figure includes all the students in my class, whose anonymous responses to this questionnaire were later matched to their responses to Questionnaires Two and Three through codes. As the research site is a women’s university, the participants were all female students. This study did not actively aim to focus on gender, but I could only access the type of data that I needed for this study through my workplace, which precluded access to male participants. Women’s universities are relatively common in Japan, with over 50 operating throughout the country. The fact that all of the participants were female may mean that educators at women’s universities find this study of particular interest due to the contextual similarities. However, as an extensive literature review did not show strong evidence of a gendered element to autonomous use of digital technologies for language development, I do not focus excessively on my participants’ gender in this study.

The vast majority of participants in Questionnaire One (98%) were Japanese and spoke Japanese as their L1. The remaining 2% were from Korea and spoke Korean or both Korean and Japanese as their L1. There was little variation in the age of the participants, with almost all of them (97%) either 18 (88%) or 19 (9%) years old. Only 3% of participants were older than this and none were younger. Prior English education showed a little more range, as 5% had studied it for five years or under, 59% had studied it for six
years, which is the combined length of junior high school and high school, and 36% had studied it for longer.

### 3.4.2 Case Study Participants

The case is bounded to students who I taught in a first-year English writing course that began in April 2014. Students in the English Department were divided into five classes when they began university and I had no choice in selecting which of the five classes I would teach, so the participants were chosen through convenience sampling. This form of non-probability sampling has been described by Bryman as “one that is simply available to the researcher by virtue of its accessibility” (2008, p. 183). Although the allocation of the particular writing class I taught was random, there were reasons that led to the writing course being selected for this case study over other courses. Each year at Emiha University, I taught numerous English classes, with three that were solely restricted to students in the English Department. Only one of those three was for students at first-year level and multiple factors led to this class being selected as the focal point of this study.

First, I needed to select a class of students I would not teach in the following academic year as my study had an in-built six-month period of non-contact with participants at the end of the first academic year. Due to the university’s scheduling practices, this meant I could only choose from first-year and third-year subjects. I opted for the first-year subject because there was much more flexibility in the syllabus at first-year level than at third-year level, and this flexibility was necessary for introducing the elements I planned to add to facilitate out-of-class learning with digital technologies. This not only made the first-year course more compatible with the teaching phase of my research, but also made it easier to gain permission from the research site to conduct my research. When discussing my proposed research with senior staff in the English Department there was strong support, but also concern over it detracting from the focus of higher level classes, so I was encouraged to select a first-year class. Furthermore, I wanted to know more about students’ experiences of learning English in high school, and since the gap between high school graduation and my study would be smaller for first-year students, they were more suitable as participants.
All of the students who took my English writing course were invited to complete three questionnaires, with the 22 who completed all three defined as longitudinal case study participants. Many similarities could be found between these 22 participants and the combined results of all participants in the English Department. For example, 95% of the 22 students in the case study sample were Japanese and spoke it as their L1 (compared with 98% department wide) and 95% were 18 or 19 years old (compared with 97%). Prior English education was also similar for the case study sample and the department wide sample, with 64% of case study participants having studied for the standard six years before entering university (compared to 59%) and 36% having studied it for longer (equal to department wide figures). Smartphone ownership was ubiquitous within the case study sample (compared to 96% in the whole department). At 91%, computer ownership was higher than department wide figures (79%), but tablet ownership was lower at only 5% (19% department wide). In both groups access to the Internet for devices other than/in addition to their smartphones was very high at 95%. These demographic figures suggest that the case study participants shared numerous basic commonalities with the wider department sample, positioning the case study participants as “typical” entrants to the English Department.

As noted in Section 3.2.1, six students from my writing class provided qualitative data in the form of interviews and coursework. Initially it was hoped that participants at this level of the study could be selected from a large pool of willing participants, with selections based on the data provided by the students in the questionnaires and my observations throughout the writing course. I wanted to include students who showed different learning patterns, such as those who did/did not use a wide range of online tools and those who did/did not seem to be motivated to use digital technology in English. The reality, however, was somewhat different, with most students reluctant to be involved in the more demanding interview phases of data collection. Fortunately, questionnaire data and my course-based observations of the six students who volunteered to participate indicated a substantial variation in their attitudes towards, experiences with, and perceptions of online tools. Therefore, after making sure all students were aware of the opportunity to participate (by listing it on Questionnaire Two and in a class-based Facebook Group), the six students who volunteered to participate were accepted and no further participants were sought. These six students shared a number of commonalities, as they were all 18- to 20-year-old Japanese women who had studied English for either six or seven years before starting their degree. They are briefly introduced, under their pseudonyms, below.
Rei was 20 years old when she started university. She had completed the standard six years of formal English education before entering university, but started her tertiary studies later than her peers due to health problems. She depicted her high school English classes as boring because they focused on reading and writing, with no opportunities to speak, and recalled spending every lesson in her final year of high school being forced to do practice exams for universities that she had no interest in entering. She had almost no experience using online tools in English.7

Chika was 18 when she began university and had studied English for six years. Her high school English classes were textbook-based and focused on test preparation. She explained that in high school there were no opportunities to learn the type of English needed for life beyond the classroom, and that her English education revolved around vocabulary and grammar. She noted that communication had not been a priority in her school and her speaking skills were never tested. Before university she had never used online tools in English.

Emiri was 18 when she commenced university and she had completed six years of English education prior to that. She recalled her previous English studies as text-based and a little boring, and even went so far as to say she hated English in junior high school. However, one of her high school teachers helped her to feel more positive towards it, and eventually she chose to major in English at university. She had very little experience using online tools in English before starting university and they were not part of her formal English education.

Hiromi was 19 when she started university and had studied English for six years. She recalled the bulk of her previous English study as focusing on vocabulary memorisation and reading comprehension, both of which were done with textbooks. She had no experience using online tools in English, either personally or as part of her formal education.

Kiyomi was 18 when she began university and had completed seven years of English education. When asked about her formal education, she described using grammar textbooks and listening to her teachers, who conducted lessons in a mixture of English

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7 As explained in Section 3.2.1, Rei completed my writing course but is not part of the longitudinal case study as she did not complete Questionnaire Three.
and Japanese. She had not used any online tools in English, had never had them recommended to her by her teachers, and did not know anyone in her high school who used them in English.

**Shizuka** was 18 when she started university and had studied English for seven years. In high school, she had the impression that teachers did not see communication skills as important. Her lessons and homework tasks were geared towards university entrance exam preparation, with a strong focus on grammar and vocabulary memorisation. Although online tools were not used in her formal education, Shizuka had independently tried using a range of them in English before commencing her tertiary studies.

Beyond the surface-level differences evident through the brief descriptions above, each participant was further individualised by myriad factors, such as their personal life experiences, goals, and social community. As some of these factors are pertinent to data analysis, personalised descriptions of each participant are elaborated upon in the results and discussion chapters.

### 3.5 Position of the Researcher

I undertook this study as a teacher-researcher. This term has been defined in numerous ways, with a synthesis of multiple perspectives found in Borg’s definition of teacher research as:

> systematic inquiry, qualitative and/or quantitative, conducted by teachers in their own professional contexts, individually or collaboratively (with other teachers and/or external collaborators), which aims to enhance teachers’ understandings of some aspect of their work, is made public, has the potential to contribute to better quality teaching and learning in individual classrooms, and which may also inform institutional improvement and educational policy more broadly. (2010, p. 395)

There has been acknowledgement of “the powerful role of teachers as researchers” (J. Gray & Campbell-Evans, 2002, n.p.) and calls for more teacher involvement in research (Sell & Lynch, 2014).

In this study, the theoretical frame used allows for me to take on a role as researcher. My social constructivist standpoint means that I acknowledge that my beliefs shaped my analysis and representation of the data in this study and I accept this as a natural part of the research process. This is common in projects of this nature, with Creswell noting that
when making socially constructed knowledge claims, “researchers recognize that their own background shapes their interpretation, and they “position themselves” in the research to acknowledge how their interpretation flows form their own personal, cultural, and historical experiences” (2003, p. 8-9).

I approached this research as an educator who had been teaching English for 15 years, with the majority of that time spent teaching Japanese students in Japan or in study-abroad contexts in other countries such as Australia and England. I saw great value in the adoption of digital technology into language teaching and learning, and I had already conducted several small-scale research projects in these areas. Furthermore, my interest in this area was coloured by my experiences as a language learner who had acquired most of my Japanese language skills through autonomous, out-of-class learning and had continued to learn French in this way after finishing formal French language studies many years before. I held the belief that for life-long learning, students needed to be able to manage their own learning beyond the classroom. All of these factors influenced my decision to conduct this research and my interpretations to some extent.

3.6 Data Collection

Data collection was conducted over a 16-month period in several stages, as shown in Figure 3.2.

![Figure 3.2. Data collection timeline.](image)

The first stage took place on a single day in April 2014, which was the beginning of the academic year. At this point, 128 participants in the English Department completed Questionnaire One after it was distributed in their first English writing class. The second
stage was the Teaching Period, which spanned an academic year (April 2014 to January 2015). During this period, I took steps to encourage out-of-class learning through digital technologies by adding new components to the writing course. A full description of the additions made is given in a section on the Teaching Period later in this chapter. At the end of the Teaching Period, Questionnaire Two was completed by 25 students who were in my writing class and six of them participated in interviews. After that, the study entered the Post-Teaching Period. During this six-month period, I had little contact with the students I had taught. As my research explored the long-term influence that steps taken during the Teaching Period had on students’ learning practices, contact was minimised to reduce the influence of my on-going presence in their lives. Although contact was minimised, I did not want to treat them coldly, so on a basic level I treated them as I would any other student who had taken one of my classes; in other words, I greeted them on campus and interacted with them if they posted in the Emiha Learning Group\(^8\), which was an English-language Facebook Group I ran that was open to students from all year-levels and departments. At the end of the Post-Teaching Period, Questionnaire Three was administered and 22 of the students who had participated in the first two questionnaires completed it. Finally, follow-up interviews were conducted with five of the six students who had previously been interviewed, with Rei dropping out due to extenuating circumstances. To further clarify the information given in Figure 3.1 and the explanation above, Table 3.1 provides a breakdown of data collection by tool.

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\(^8\) A pseudonym
<table>
<thead>
<tr>
<th>Data Sources</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Questionnaire One</td>
<td>128 students: All participants were enrolled in the first-year English writing course at Emiha University. Administered April 2014.</td>
</tr>
<tr>
<td>Questionnaires One to Three (Longitudinal Data)</td>
<td>22 students: This is sub-sample of the group above, bounded initially to the 26 students who were enrolled in my writing course, then further reduced to only include students who completed all three questionnaires. Data from four students who completed Questionnaire One and/or Questionnaire Two but not Questionnaire Three were excluded from this part of the study. Data collection timeline: Questionnaire One, April 2014; Questionnaire Two, January 2015; Questionnaire Three, July 2015.</td>
</tr>
<tr>
<td>Facebook Group and English Reports</td>
<td>6 students: Chika, Emiri, Hiromi, Shizuka, Kiyomi and Rei. This is sub-sample drawn from the original group of 128 participants. These six students took my writing course. Interaction in the Facebook Group and completion of English Reports took place during this two-semester writing course, which ran from April 2014 to January 2015. Their Facebook interactions and English Reports were treated as data sources after the course finished in January 2015.</td>
</tr>
<tr>
<td>Interviews</td>
<td>Interview One: 6 students, conducted January 2015; Interview Two: 5 students, conducted July 2015. These are the same students who allowed their contributions to the Facebook Group and English Reports to be treated as data. Rei did not complete Interview Two.</td>
</tr>
</tbody>
</table>

In the sections below, the data collection tools listed above are described and key elements of the Teaching Period are outlined.

### 3.6.1 Questionnaires

Three questionnaires were used to collect quantitative and qualitative data in this project. Questionnaire One (Appendix A), which was administered to all first-year students in the English Department on the first day of their writing course, consisted of nine questions which could be broadly separated into three sections: one that gathered demographic information, another that gathered data related to online tool use, and a final one that explored prior English learning experiences. The questionnaire focused on areas such as participants’ prior use of online tools in different languages, factors that motivated and discouraged them from using online tools in English, and their English education experiences in high school. The majority of the questions were closed response, with an
‘other’ option for participants to provide an alternative if none of the provided options applied to them. The scope of each question is summarised in Table 3.2.

Table 3.2. Summary of Areas Covered in Questionnaire One

<table>
<thead>
<tr>
<th>Questionnaire One</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1 Demographic information</td>
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<tr>
<td>Q2 Device ownership</td>
</tr>
<tr>
<td>Q3 Prior experience with online tools in English and L1</td>
</tr>
<tr>
<td>Q4-5 Purpose and frequency of online tool use in English</td>
</tr>
<tr>
<td>Q6-7 Motivating and deterring factors for English online tool use</td>
</tr>
<tr>
<td>Q8 High school English education experiences</td>
</tr>
<tr>
<td>Q9 Preferences for online tools use in the first-year writing course</td>
</tr>
<tr>
<td>Q10 Secret code to match responses from individuals with their responses on later questionnaires. This question was only added to copies distributed to students in my writing class.</td>
</tr>
</tbody>
</table>

All questionnaires were originally written in English then translated into Japanese, which is the language students received them in. Unfortunately, due to my employment contract, the window of opportunity for collecting data as a teacher-researcher was limited and the deadline for my ethics application did not allow me to pilot Questionnaire One. While care was taken to ensure the Japanese translations were correct, two problems arose. First, in question four the emphasis on using online tools in English was not clear enough, which may have resulted in some students providing answers that contradicted their responses to other more clearly marked questions, suggesting that they had interpreted the question as referring to using online tools in any language rather than just in English. In question four, the options “I only use it in class/for homework”, “I only use it privately” and “I use it in class/for homework and privately” should have had “in English” added for further clarity. English usage was mentioned in the question, but dropping it from the response options may have led to confusion. In addition, in question five, one column was omitted when the questionnaire was translated. Therefore, these two questions could not be used for data analysis. This resulted in the remaining questionnaires being checked again for consistency in English and Japanese versions, and the Japanese versions being slightly revised and re-formatted to make sure keywords were repeated and readily identifiable. Shading and underlining were used to limit confusion and the questionnaires were piloted and revised to incorporate feedback from the pilot subjects.
Questionnaire Two (Appendix B) was administered at the end of semester two to students who took my English writing class. Some areas from Questionnaire One were included to allow for an exploration of changes in students’ attitudes and practices, and new areas were added to understand students’ experiences of using online tools during the course and their intentions for the future. In addition, the questionnaire was used to elicit expressions of interest from students who were willing to provide additional data. Six months after the writing course, Questionnaire Three (Appendix C) was administered to the same students who completed Questionnaire Two. The main goal of Questionnaire Three was to find out how students used online tools a semester after the Teaching Period (i.e. my writing course) had ended. Many content areas from Questionnaire Two were repeated in this questionnaire, as shown below in Table 3.3.

<table>
<thead>
<tr>
<th>Questionnaire Two</th>
<th>Questionnaire Three</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1-2</td>
<td>English use of online tools during the Teaching Period</td>
</tr>
<tr>
<td>Q3-4</td>
<td>Online tools that were easy/difficult to use (restricted to those used in English)</td>
</tr>
<tr>
<td>Q5-6</td>
<td>Online tools that were viewed as useful/not useful for learning English</td>
</tr>
<tr>
<td>Q7-8</td>
<td>Motivating and deterring factors for online tool use in English</td>
</tr>
<tr>
<td>Q9</td>
<td>Comparison of online tool use at the start and end of the Teaching Period</td>
</tr>
<tr>
<td>Q10</td>
<td>Online tools participants intended to use in English in the following six months</td>
</tr>
<tr>
<td>Q11</td>
<td>Secret code (necessary to match participants’ responses across questionnaires)</td>
</tr>
<tr>
<td>Q12</td>
<td>Invitation to participate in additional data collection phases</td>
</tr>
</tbody>
</table>

### 3.6.2 Semi-structured Interviews

In order to gather the kind of rich data that is needed to gain a deep understanding of the areas addressed by my research, semi-structured interviews were conducted. They took place directly after Questionnaires Two and Three, with six participants in the first round of interviews and five continuing onto the second round. A major benefit of conducting semi-structured interviews is that they “allow researchers to develop in-depth accounts of experiences and perceptions with individuals” (Cousin, 2009, p. 71). Semi-structured
interviews typically have a pre-determined list of questions or topics that serve as a guide, with the interviewee able to answer in flexible ways and the interviewer able to probe answers and pursue new lines of discussion (Edwards & Holland, 2013). It was chosen over structured interviews as it allows interviewers to “adapt, modify and add to the prepared questions if the flow of the interview talk suggests it” (Cousin, 2009, p. 72).

This type of interviewing was most suitable to the research context for several reasons. First of all, it was felt that planning the guide would increase the likelihood that key areas that should be covered would not be forgotten while still allowing the students to share their lived experiences and thoughts in their own words. As Cousin’s notes, semi-structured interviews can be a space in which “interviewer and interviewee work together to develop understandings” (2009, p. 73) and developing a deep understanding of students’ experiences and perceptions is central to this study. In addition, this style was chosen over unstructured interviews because students would be given the option of conducting all or part of the interviews in either English or Japanese. As I would be conducting sections of the interview in Japanese, which is my L2, I wanted to prepare by thinking about the questions in Japanese before the interviews. In the second round of interviews, most of the questions were translated into Japanese before interviewing the participants.

Interviews that were mainly conducted in Japanese took approximately 50 to 60 minutes, and those mainly conducted in English took 20 to 30 minutes longer due to the additional time needed to comprehend and formulate responses. This was longer than anticipated when planning, with interviews expected to last approximately 45 minutes. Before each interview students were told they could stop at any point but all chose to continue willingly despite it taking longer than anticipated.

The main objective of the interviews was to gain access to information that would create a deeper understanding of students’ English education experiences before, during and after the Teaching Period. They could have been done in a group setting, such as through focus groups, but I opted to conduct them one-to-one as I felt that doing them this way would encourage participants to produce longer, more detailed responses, as they would not have to manage turn-taking involving numerous others. In focus groups, there may be reticent speakers and others who dominate the conversation, and managing this can be challenging (Bryman, 2008). Also, if participants speak simultaneously, transcription can become difficult, resulting in a loss of data. Furthermore, by interviewing students
individually I was able to offer them complete anonymity, which protected each participant’s privacy.

The primary focus during these one-on-one interviews was on students’ personal learning experiences, particularly with using digital technology. In addition, the interviews drew heavily on various aspects of the Teaching Period, such as the English Reports and interactions within the Facebook Group, in an attempt to understand how the additional components to the writing course affected them on an individual level. The interviews aimed to extend and elaborate upon the knowledge that was gained through questionnaires so some similarities between the questionnaires and interviews can be found. Samples of guiding questions (with Japanese translations removed) are provided in Appendix D (Interview One) and Appendix E (Interview Two).

Choosing to interview students I had taught for two semesters had both advantages and disadvantages. When designing the study, I chose to interview students myself because I believed I would be very familiar with them and the content area so could readily follow up on initial prompts during the interviews and expand in ways that would facilitate rich data collection. Also, as I expected to build rapport with them during the writing course, I thought some of the communication barriers that exist when people first meet would have been overcome, bringing a level of comfort that may not exist if the students were interviewed by a stranger. However, at the same time, my role as their teacher for two semesters would put students in a position that could make it difficult for them to share their honest feelings at times due to the teacher-student relationship. Although it would be their choice to participate or not, they could feel obliged to answer in ways that they thought I would approve of even though they would be informed that all grading I was responsible for was completed. With this power imbalance, there is some likelihood that interviewees would provide different responses to what they would give if interviewed by someone else who assured them that their responses would be conveyed to me anonymously. However, as the interviews were semi-structured this was impractical and was likely to result in data loss in areas I was targeting. Therefore, the decision was made to carry out the interviews myself, reminding participants before each interview that they had no obligation to answer anything that they did not wish to answer and that, as was noted on the consent form, they could drop out at any time without explanation or penalty.
3.6.3 English Reports and the Class Facebook Group

Two key artefacts were created during the Teaching Period that were later drawn on as data: a series of English Reports and a private Facebook Group that was set up for sharing and commenting on the English Reports. These were part of coursework, but after the course and all grading had been completed, the six students who were interviewed gave their permission for use of the artefacts in the study. This was a design plan, so the reports and the way they were shared was done with both their usefulness to students and their usefulness as research tools in mind. These two artefacts are outlined below then a more detailed overview of the Teaching Period is provided.

**English Reports:** The first key artefact created during this study was the English Reports. Students completed a total of nine of them during the writing course. The first two were very simple: students were asked to use an online tool of their choice to work on their English skills, then write a short reflection on it, explaining what they did online, how it helped them, and the difficulties, if any, that they experienced. Most students were very unfamiliar with online tools at this point in the study, so the main goal was to get them to try using an online tool and evaluate its usefulness. These two reports were completed in semester one.

In semester two, students were provided with a template for their reports that was inspired by Smith and Craig’s (2013) work. In their study, students were guided to respond to the following prompts when using computers for self-study:

1. Your goal for today:
2. Website/s or software used:
3. Website or software evaluation:
4. Reflection/how you felt about your efforts today:
5. What you plan to do in class next week:
   (Smith & Craig, 2013, p. 258)

These questions became the basis for some of the English Reports that were integrated into my study. When coupled with interaction about them through a course-based Facebook Group, they encouraged learners to adopt continuous planning-action-reflection cycles, a process that is elaborated below in the Teaching Period section. A basic model of the English Report template is shown in Table 3.4. When completed on a computer as intended, the response sections below each question were expandable to accept contributions of any length.
Table 3.4. *English Report Template*

Name: ____________________________

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1)</td>
<td><strong>What were your English language goals during the summer break?</strong></td>
</tr>
<tr>
<td>2)</td>
<td><strong>Write a list of all of the online tools you used in English during the summer break.</strong></td>
</tr>
<tr>
<td>3)</td>
<td><strong>Write a list of all the other things you did to study English during the summer break.</strong></td>
</tr>
<tr>
<td>4)</td>
<td><strong>How did your online and offline study help you to reach your goals?</strong></td>
</tr>
<tr>
<td>5)</td>
<td><strong>What are your English language goals for the next two weeks?</strong></td>
</tr>
</tbody>
</table>

The questions had different time periods in each English Report (for example, the summer break, the past two weeks, the next three weeks), but the rest of the template was the same for reports three to eight. In the ninth (final) report, which was completed at the end of the writing course, question five asked students to consider their English language goals for the spring vacation and the first semester of the following academic year, and two extra questions were added. Question 6 asked “Which online tools do you think you will use to meet these goals and how do you think you will use them?” and question 7 asked “What do you think you will do offline to meet these goals?” The additional questions in the final report were used to prompt students to continue studying beyond the course and were also incorporated to be drawn on as data with students who would be interviewed six months later.

Another study that tangentially influenced the English Report template was McCarthy’s (2011) report on a case study conducted with three ELLs who used a self-access learning centre (SALC) at a university in Japan. This study found “if learners see their goals as central to the learning process, they are more likely to achieve them. In addition, if learners set goals on which they can measure progress, they will be better able to sustain motivation” (McCarthy, 2011, p. 112). This prompted me to consider incorporating questions that addressed planning and action over multiple English Reports to track connections between plans and action. To address this, the last question of the English study report template prompted students to set goals for the coming period of time (usually two or three weeks) and the first question prompted them to recall their goals, with the questions that followed focusing on the tools and activities they used, and how
those things helped them to achieve their goals. The linking of questions through different reports was done for two reasons. First, they served pedagogical purposes, as I wanted to help students identify and reach goals and maintain motivation. In addition, as a teacher-researcher, I wanted to know how much influence setting goals had on students’ actions over time. Therefore, this concept of expressing intentions and checking on subsequent actions was integrated into the English Reports.

In terms of how the English Reports were completed, students did the first two as homework and were given time to complete reports three to nine (template versions) in class. If they were absent, they were instructed to do them for homework. The reports served four main purposes: 1) they were a tool that students themselves could use to evaluate their learning needs and plan their study; 2) they were shared online so offered a way for students to see their peers’ goals and study practices, which meant that students could both teach, learn from, and support each other; 3) they allowed me (as a teacher) to encourage and support students’ out-of-class study; and, 4) they offered me (as a researcher) a way to access data pertaining to out-of-class study. The English Reports were shared through the class’s Facebook Group, the second key artefact created in the course.

The Facebook Group: This was set up to be both a pedagogical tool for the ELLs in my writing course and a data tool for me as a researcher, with permission to treat it as such only sought from interviewees after all grading for the course had been completed. As an educator, to support and advise students appropriately, I needed effective ways to respond to their English Reports and felt that an online option would be effective for several reasons. First, I only met my students once a week, fourteen times a semester, and did not have time to address them individually on their out-of-class learning practices during lessons. Furthermore, as many of my recommendations were about digital technologies, I wanted an easy way to share links and screen shots. Additionally, I wanted students to share their English Reports with each other, so they could 1) see how much out-of-class study their classmates were doing; 2) learn about new study tools and methods from their peers; and, 3) provide a source of mutual support and encouragement. This could not easily be done through face-to-face or paper-based means. While I made the decision for the English Reports to be shared online, I wanted students to have agency in determining the platform that would be used, so we discussed several options then the class voted anonymously through an online student response system. They elected to use the private
group setting of Facebook, so I set up a group, linked it to the class website, and sent an email to the whole class to explain sign up procedures.

Once students posted their reports to Facebook, they were asked to read some of their classmates’ reports and comment on them using Facebook’s commenting function. They were encouraged to upload extra materials too, such as links to tools and screen shots. As their teacher, I read and commented on every report, sometimes briefly and other times in more detail. My comments included encouragement, advice on tools to use and ways to use them, help when students had trouble using tools, and questions to prompt reflection or gather more information. Through the Facebook Group, and occasionally during face-to-face lessons, students were given overt instructions that supported them in their operational use of various technologies. The Facebook extract between Chika and me, shown in Figure 3.3, is an example of a way in support was given for operational aspects of tool use.
Figure 3.3. Facebook exchange showing teacher effort to scaffold a student’s ability to operate a digital tool.
I also highlighted the learning benefits of digital technologies by suggesting appropriate learning tools and study methods, and by creating opportunities for students to learn these things from more capable peers. Figure 3.4 shows an example of teacher scaffolding that aimed to make Kiyomi aware of the ways she could use digital technologies to work towards goals she had identified (improving her listening and writing skills) with tools she had already used (TED Talks and the Emiha Learning Group). It also shows how Facebook’s tagging function was employed to simultaneously connect Kiyomi to other students who had used one of the tools and direct those students to the advice listed in the comment, thereby increasing the reach of my scaffolding and creating opportunities for peer-to-peer learning.

![Figure 3.4. An example of teacher effort to support students’ use of digital technology as a language learning tool via Facebook.](image)

Another key method used to support students in the Teaching Period was instructing and encouraging them to use the Facebook page to read and comment on their classmates’ English Reports each time reports were completed. As noted earlier, most of the English Reports were done in class. If students finished early they had time to read their classmates’ posts and comment on them while waiting for others to finish their reports, but commenting was generally done outside of class so sometimes I posted reminders for students to comment, as shown in Figure 3.5. This post also shows an example of a prompt for students to post their missing English Reports. Occasionally some students were absent or did not post during the lesson. While the language learning activities that students did outside of class were not controlled, the English Reports themselves were treated as coursework so were expected to be submitted and the Facebook Group offered a way for me to send reminders.
As with the interviews, the implications of introducing the English Reports and Facebook Group to students in my dual roles of teacher-researcher should be examined. Firstly, as students completed these tasks as part of the writing course and not as responses to requests for data, it can be said with some confidence that my role as a researcher did not influence their responses. Although they were informed about the study when Questionnaire One was administered, they were not asked for permission to treat their coursework as data until they had completed the course, when all of their English Reports and Facebook Group interactions had been written. However, my dual role had an influence on how I oversaw completion of the English Reports and responded to students in the Facebook Group. Although I endeavoured to teach the writing course as a teacher and view it as a researcher, my knowledge that some of the English Reports and interactions in the Facebook Group would eventually be used as data must have influenced me at times, even unconsciously, altering aspects such as the amount of time I allocated to such tasks. Therefore, my role as teacher-researcher cannot be ignored when considering these data collection tools.

The Facebook Group and English Reports were integral to the Teaching Period but without further explanations it may be unclear where they fit within the writing course and what other support was offered. Therefore, an overview of the Teaching Period and my use of a reflective journal to document aspects that were relevant to me as both a teacher and researcher in this period are covered in the following section.

3.6.4 The Teaching Period

In 2014, when I began the Teaching Period of this project, my goal as a teacher was not only to help my students with their writing skills in the same way as I had done in previous years, it was also to help them to work on their English skills outside of class. I wanted
to find a way for students to complete meaningful tasks that were connected to their own individual goals and I wanted the learning materials to be easily accessible. For these reasons, I incorporated an autonomous learning component into the first-year writing program, with a focus on online tools. Key aspects of this are outlined in the following sections, with an overview of lesson-by-lesson additions to the writing course listed in Appendix F. Although this meant students were doing additional work in class time, mainly through writing the English Reports, adding this component did not prevent the main content of the courses from being taught, and in many ways the additional classwork was complementary as it served to enhance students’ familiarity with writing in English on a computer, which was a requirement for most of their written coursework. Furthermore, while students were initially instructed and later encouraged to work towards their learning goals outside of class, there was not a minimum amount of time that they were asked to spend on out-of-class learning, they could choose their own learning materials and they could opt not to do it without it affecting their grades, so control was left in their hands. However, as teacher support was a key element of the research, efforts were made within the Teaching Period to familiarise students with digital technology as an educational tool and help them establish planning-action-reflection cycles. These areas of support are described below.

Familiarising Students with Digital Technology as an Educational Tool

When the students in this study entered my writing course at Emiha University, the majority of them had low-level computer skills and were not used to using computers in English. Therefore, the first challenge for me as a teacher was to familiarise them with the digital technology we would use in the course, with the expectation that building comfort through using computers and some online tools together would help them with their academic writing and also make them feel more comfortable later when using digital technology independently for language learning.

The computer classroom I taught in had one desktop computer for each student with an extra monitor (shared monitor) positioned between pairs of students’ monitors. The shared monitor could be used by the teacher to share whatever was on the teacher’s or students’ screens, and could also be used to share paper-based materials with the assistance of a projector. The teacher’s desk was at the front and had three monitors: two that were connected to the teacher’s computer, and one that let the teacher check students’
screens, showing their names and whatever was on their monitors. Throughout the writing course, the shared monitor was used extensively to show students the teacher’s computer screen, textbook, and other paper-based materials.

When students started the writing course, many of them struggled with basic computer-based tasks. They were generally slow at typing and some needed step-by-step guidance to do tasks such as saving files onto USBs, despite the interface being in their L1. Early course experiences included helping students who did not know how to attach files to emails and assisting students who had brought USBs that had nothing saved on them as the students had not realised they had to choose the USB as the location for saving documents. Students were initially hesitant to raise their hands if they did not understand what to do, so when computers were used in class “lost” students were often only discovered if I walked around the room or used the teacher’s monitor to check that they were in the right place. To combat this, I generally demonstrated through the shared monitor and implemented a “turn left, turn right” system, whereby students were periodically instructed to check with those around them to help or seek help. The latter was partly done in an effort to build rapport and peer support networks that could be drawn on later in the course when students worked online.

To allow students to easily access useful websites and learning materials, I used a WordPress site that I had engineered into a makeshift Learning Management System two years before the project began. In this study, it was used as a class website that shared course-related information, such as the course overview, schedule, and assignments, and also had many supplementary materials embedded. For example, students could access worksheets, videos, and online dictionaries with just one click. In addition, they could easily access tools that were regularly used in class, such as Socrative (an online student response system), and also links for two Facebook groups, one of which was open to ELLs campus-wide (the Emiha Learning Group), and another which was limited to students in their class and used for sharing English Reports.

Later in the writing course, students were prompted to try using online tools for out-of-class English study, with different students self-selecting different tools. Most support for this was offered outside of class through the Facebook Group, sometimes by me and other times by classmates. One of the reasons the Facebook Group was chosen for sharing English Reports is that it would allow for support through social interaction. In later
chapters, findings that highlight the important role social interaction played in this study will be shared. At this point, it is time to explore the course-based planning-action-reflection cycles in more detail.

**Supporting the Development of Planning-Action-Reflection Cycles**

During the Teaching Period, the English Reports were designed to encourage students to enter individual planning-action-reflection cycles. These steps may be best known to teachers who are familiar with action research as they are part of the cycles teacher-researchers adopt in that research method (Mertler, 2009; Kemmis, McTaggart, & Nixon, 2014). However, in this study I used the process to guide autonomous learning. This decision was influenced by Smith (2010), who identifies reflecting on progress and performance to inform future goals and actions as central to learner autonomy and advocates cycles of self-planning, self-monitoring and self-evaluation, which she refers to as reflective practice.

Questions in the English Reports directed students towards planning by asking them to consider their goals. Specifically, they were directed to answer the question, “What are your goals in the next (period of time)?” In hindsight, the question itself did not clearly delineate between the concepts of goals (What do you want to achieve?) and plans (What will you do to achieve it?) and it would have been more beneficial to ask questions about both of these concepts. However, the reports were a mediating tool that was designed to be used in conjunction with interactions within a social space created for discussing goals and planning how to address them (the Facebook Group). Therefore, despite the phrasing of the question, the English Reports played an integral role in the planning-action-reflection cycles. In addition, having students share their English Reports in the Facebook Group (as a declaration of intended action) then following up on what had been done in the following report (as a statement of actual action or inaction) was a design feature that aimed to encourage students to carry out their learning plans. Furthermore, having questions in the English Reports about what they studied and how it helped them was designed to encourage reflection. The English Reports themselves were designed to draw students’ attention to elements of the planning-action-reflection cycle and uploading them to the Facebook Group further supported this as the reports become socially embedded within the class. The social element was designed to increase the effect of the English Reports as knowing others would be reading and being able to read others’ English
Reports encouraged students. Comments from the teacher and peers were expected to help with planning and to motivate students into action.

**Reflective Journal**

When teaching, I needed to give my attention to the students as students, not research subjects. However, I thought as both as teacher and researcher, and had to make sure I did not overlook important aspects that I would need to follow up on with students later or to explain when reporting my research. To address this, I kept a reflective journal throughout the 2014-2015 academic year, making detailed notes after each lesson and sometimes making additional entries between lessons. Keeping reflective journals can be beneficial when researching, but as Ortlipp (2008) notes, literature on their use in the research process is relatively limited. As such, there is little guidance on exactly what researchers would generally include in such a journal. For the most part, my notes related to lessons and homework tasks, steps I took during the Teaching Phase of the project, and my own personal reflections on students’ reactions to and experiences with tools that were introduced throughout the course. These notes are not directly used as data but were instrumental in shaping my ideas during the Teaching Period and ensuring that my recollections of the actions I took during that phase are accurately described in the methods section, particularly for the creation of the overview provided in Appendix F.

3.7 Preparing Data for Analysis

The 14 hours of interview data included sections in both English and Japanese, so before they could be analysed they needed to be transcribed and translated. The way transcription and translation are undertaken can have a great deal of influence on the data that is available, so steps were taken to accurately reflect what participants said as discrepancies would make the data unreliable. The next sections outline the procedures followed.

3.7.1 Transcription Methods

Roberts suggests that “all transcription is representation, and there is no natural or objective way in which talk can be written” (1997, p. 68). In a review of literature published between 1979 and 2009, Davidson found some common tenets of transcription describing it “as a process that is theoretical, selective, interpretive, and representational”
(2009, p. 37). She notes that different theoretical and methodological positions entail
different beliefs about the way spoken language should be represented through
transcription, and these impact on the approach researchers should take when trying to
create understandings through transcribing. As such, it is a process that is undertaken in
a multitude of ways, with a considerable amount of variation both between and within
disciplines.

When selecting how to represent what was said in an interview, the level of detail needs
to be weighed up against the readability of the transcript, as “extraneous information
makes a transcript difficult to read and might obscure the research purpose” (Davidson,
2009, p. 38). While including a range of verbal and non-verbal elements can be helpful,
it is important not to overwhelm the reader with excessive detail that may impede
understanding (Davidson, 2009; Ochs, 1979). It should be noted that the way excessive is
defined varies according to how the researcher plans to use the interview data. When the
focus is on understanding participants’ experiences, pronunciation and other aspects that
do not contribute to an understanding of participants’ thoughts, feelings and actions are
not included. Something that all interview-based projects have in common is that content
selectivity should not be random. Ochs suggests that when selecting which information
to include and which to leave out, the transcriber should “be conscious of the filtering
process. The basis for the selective transcription should be clear” (1979, p. 44). In other
words, decisions that relate to transcription content should not be made randomly, and
“selectivity needs to be acknowledged and explained in relation to the goals of a study”
(Davidson, 2009, p. 38).

A further major decision relates to the extent to which utterances will be encoded in order
to make the data readable; in other words, the extent to which the transcription will be
naturalised or denaturalised. Bucholtz (2000) defines transcription practices as
naturalised, denaturalised or somewhere in between, with the transcriber selecting the
point on the continuum that is appropriate for their purposes. In naturalised transcription,
the text adheres to commonly accepted written discourse norms, following patterns often
found in fictional dialogues and newspaper quotations (Bucholtz, 2000). This form of
transcription omits sounds and words that are not required for understanding. On the other
hand, in denaturalised transcription the text incorporates oral discourse norms (Bucholtz,
2000) such as false starts and fillers (Saldanha & O’Brien, 2013). Both approaches have
drawbacks, with naturalised transcripts running “the risk of failing to call enough
attention to linguistic form and its transformation from speech to writing” while
denaturalized transcription, in its faithfulness to oral language, may make speech itself seem alien” (Bucholtz, 2000, p. 1461). Oliver, Serovich and Mason (2005, p. 1273) offer further guidance through their conceptualisations of naturalism, described as a form of transcription in which “every utterance is captured in as much detail as possible”, and denaturalism, described as one “in which grammar is corrected, interview noise (e.g., stutters, pauses, etc.) is removed and nonstandard accents (i.e., non-majority) are standardized”. While this distinction highlights some differences in perspectives in the literature about what is “natural” and “unnatural” transcription, it is clear that the decision over whether to retain, remove, or reformulate various features that were present when the recording was made is an important one.

In this study, interviews were conducted in order to gain a deeper understanding of the ways students used digital technology to engage in English language learning, and to explore the short-term and long-term impact that the Teaching Period phase of this project had upon them. Transcripts were developed to make it easier to analyse the students’ experiences in detail. The focus was on meaning, so utterances that did not contribute to this, such as fillers (um, ah) and repetitive acknowledgements (ok, I see) were removed. Removing superfluous utterances such as these increased the readability of the transcripts and reduced distraction from content-based utterances. As part of the naturalisation process, most false starts and repeated words were taken out to increase readability, and pauses were not indicated on the transcripts. To further increase readability, when quoting in this thesis, words have occasionally been substituted. This was done for three reasons: firstly, to facilitate understanding when English language errors were overly distracting; secondly, to replace pronouns or clarify references to information that was not in the excerpts; and thirdly, to protect the anonymity of the research site by changing parts that could be identifying. When this was done in the transcripts, the substitutions are enclosed in square brackets.

As outlined above, this project collected interview data in English and Japanese. Although conducting the interviews solely in English would have simplified the transcription process considerably, it would also have prevented some students from participating and potentially led to answers being given in less depth or clarity than was sought, reducing the possibility of participants being completely and accurately represented. As such, even when students chose to participate in English, they were encouraged to use Japanese when they felt they could not express themselves fully enough or if they were not comfortable using English. In the first round of interviews, six students participated, with four using
mainly English and two using mainly Japanese, and in the second round three mainly used English and two mainly used Japanese. When transcribing, this raised two central issues. Firstly, the students’ Japanese utterances needed to be transcribed in a way that accurately reflected what they said. As Japanese is my L2, it was not always possible to understand every single word that was spoken, so an L1 Japanese speaker was approached to transcribe some of the interviews and check the parts that I transcribed. We then worked together to remove superfluous information, such as fillers and repetition, to produce final original-language drafts of the transcripts.

3.7.2 Translation Methods

Once transcription was complete, all Japanese sections were translated into English. This was a complex process as there are often several ways to translate the same utterance. To ensure that the English translations accurately reflected the original Japanese utterances, a two-tier approach was used. First, the L1 Japanese speaker mentioned above and I divided up the transcripts and translated them, then we worked together to check that the translations were accurate, making changes where necessary. Although the level of accuracy in the participants’ utterances offers a hint as to which parts have been translated from Japanese and which were done in English, it is important to show this more concretely, so translated parts have been underlined.

An overview of the transcription and translation process is shown in Figure 3.6. The first arrow shows steps that were followed for both English and Japanese sections of interviews, and the second arrow shows the additional steps taken for Japanese sections.

![Figure 3.6. Interview transcription and translation overview.](image)

Through this process most translation issues were resolved, but there were some instances in which translations could not be agreed upon. In such cases, the participants were
approached for clarification. This step was taken in order to increase the trustworthiness of the interview data.

### 3.8 Data Analysis

This section turns to data analysis methods, providing explanations of how quantitative data were analysed and how interviews were coded. This is followed by information about how activity theory was used as an analytical tool.

#### 3.8.1 Collating Statistical Data and Coding Interviews

The quantitative questionnaire data were entered into Excel spreadsheets for analysis. Once entered and checked to ensure accuracy in data input, the data were tabulated to provide demographic information and gain an overview of responses to each question. The questionnaire data were also used to shape the interview questions. Quantitative analysis conducted with questionnaire data is descriptive, using percentages when useful to facilitate understanding. Unfortunately, a small number of respondents skipped some question items so there are not valid responses for every item. In instances that this occurs, all items in graphs have been represented as a percentage of total valid responses, with notes about the sample size indicated for each graph. Furthermore, additional data sets are provided in Appendix G to provide extra information about any graphs that report on items that came from a data set that contained missing data. While the amount of missing data was small, there were concerns that the gaps could be seen as reducing reliability when comparing data sets across time with longitudinal participants, so McNemar’s test was used to add rigour to data analysis. This test overcomes the issue of missing data by using matched pairs in data sets, and was used to test for statistical significance when comparing changes between time-specific data sets. This test was most appropriate as it “is used to determine if there are differences on a dichotomous dependent variable between two related groups. It can be considered to be similar to the paired-samples t-test, but for a dichotomous rather than a continuous variable” (Laerd Statistics, n.d., para. 1).

As for interview data, after interviews had been transcribed and translated (see Appendix H for two lengthy excepts), they were examined to determine possible themes within them. Open coding is a common method that can be used to discover emerging themes so it was employed to identify key themes within the interview data. Strauss and Corbin
define open coding as “the process of breaking down, examining, comparing, conceptualizing, and categorizing data” (1990, p. 61). This method, which was made popular through Grounded Theory (Glaser and Strauss, 1967) and has since been used extensively in qualitative and mixed methods studies (Azimi, 2012; Kim, 2008), allows themes to emerge from the data rather than pushing the data into pre-existing categories. As noted by Firmin (2008) in The SAGE Encyclopedia of Qualitative Research Methods, when analysing data, researchers can begin looking for themes by noting down potentially reoccurring ideas and then looking for evidence of them occurring repeatedly. Those which do not are dropped, and those which do are considered further and refined.

In this study, the first step of interview coding was to read transcripts line-by-line, with keywords, phrases or sentences added to many small sections of text. The final drafts of the transcripts were stored in Microsoft Word and this program’s comment function was used to insert these codes. After that, all coded parts of interviews that related to similar ideas were moved to one file or one section of a new file, then the transcripts were read again to search for more sections that would fit and they were transferred too. This was done in two ways; firstly, by reading the transcripts again with those specific ideas in mind and secondly, by using the search function in Word to look for key words that were related to the idea under study. During this stage some knowledge claims began to emerge more strongly and data were categorised more precisely. To facilitate understanding of the procedures used, Appendix I provides examples of documents that were created during the coding process. Part A of Appendix I provides initial open coding samples (two extracts) before moving on to provide an example of how similar ideas were drawn together for further analysis, first by identifying knowledge claims (Part B) then by refining them (Part C). The sample that is provided in Parts B and C demonstrates how knowledge claims relating to factors that motivated and discouraged students from using digital tools were coded. The section on identifying knowledge claims provides examples from sections of interviews that had been categorised under the broad code “accessibility of technology is important”. To show how knowledge claims were refined, Part C first lists the categories that had been identified as related to motivation and discouragement at that stage in the coding process and gives examples of sections that fit within sub-categories of “accessibility”. Once knowledge claims had been refined, the interviews were returned to in search of additional sections that fit under the identified codes. During the coding process, files of coded data were shared with two of my doctoral supervisors at various stages in the coding process. It cannot be said that they took on a role that
would strengthen my coding process as much as having a sub-sample independently coded to check for inter-coder reliability. However, a certain level of rigour can be claimed as we discussed coded documents and the coding process itself at length on multiple occasions and this led to changes to coded items at times as we negotiated the precise meaning of particular codes.

After coding was completed, representative excerpts were selected for inclusion in the findings chapters. These are unedited beyond the processes outlined in Section 3.7.1 (Transcription Methods) and Section 3.7.2 (Translation Methods) in order to ensure each participant could share her experiences in her own voice. In many cases, lengthy excerpts are provided. In addition to allowing each participant’s individuality to be represented and lowering the likelihood of inadvertently obscuring a speaker’s meaning by paraphrasing, providing long excerpts allows readers to interact with the data and co-construct meaning. As put forth by Mabry (2003), including interview excerpts can promote reader engagement and make reports ‘readerly’, which is a postmodernist term she defines as “consciously facilitative of meaning construction by readers” (p. 175). While all excerpts are embedded into passages that detail my own interpretations, readers are encouraged to also critically evaluate the transcriptions, raising their own questions and drawing their own conclusions.

In addition to the coding described above, labels were added to parts of interviews that contained information that would help facilitate understanding of different parts of learners’ activity systems and could be used to create narratives for individual students. An example of an early draft of Emiri’s narrative, which shows how it was drawn from interview segments, is provided in Appendix J. The role of activity systems in analysis is elaborated on below.

3.8.2 Using Activity Systems as an Analytical Tool

In order to analyse across all data sets and reflect the complex learning environment, activity system analysis was employed. As described in Chapter Two, activity theory allows researchers to gain a deeper understanding of how people’s activities are enabled and constrained by social structures and material/symbolic tools and means (Engeström, 1987; Leontyev, 1978). It considers a subject, their object and the outcome of activities,
as well as the influence of four other nodes: rules, mediating tools, community and division of labour.

There are several strands of activity theory and my research mainly draws on Engeström’s work with activity systems as it offers a useful framework for analysing activities from multiple perspectives and across different periods of time. As noted by Yamagata-Lynch, activity systems analysis “can help researchers and practitioners to understand individual activity in relation to its context and how the individual, his/her activities, and the context affect one another” (2010, p. 1). The unit of analysis in this analytical framework is human activity within a social context (Engeström, 1987). This framework is useful not only because it provides researchers with a comprehensive method to analyse complex activities in real-world settings, but also because it provides a way to share the results of complex human interactions with others (Yamagata-Lynch, 2010), which may facilitate naturalistic generalisation as it provides a way to share complex data in a manageable way. It allows the key elements of complex data sets to be shared in a graphic model that facilitates understanding of the data (Yamagata-Lynch, 2010). As noted by Yamagata-Lynch:

Researchers and practitioners can compare one human activity based data set with another while drawing systematic implications. These methodological advantages for using activity systems analysis can help researchers organize their analysis with a valid framework while building reliable interpretation of their data and minimize the overwhelming task of analyzing and making sense of complex data sets from real-world settings. (2010, p. x)

This study fits within what Yamagata-Lynch characterises as “describing real-world learning situations” (2010, p. 49), adding to the valuable contributions made by others who have examined these types of learning situations (for example, Barab et al., 2002; Barab, Schatz, & Scheckler, 2004; Yamagata-Lynch, 2003). In Barab, Barnett et al.’s (2002) study, activity systems analysis was used to understand and explain how groups of undergraduate students learnt about astronomy through building model solar systems on computers. They drew on activity systems in two ways, with separate units of analysis. First, they looked at the perspective of individual students and small groups, analysing their goal-directed actions. These actions included things like dividing tasks for group work and producing the model solar system. Next, they focused on the course as a whole, analysing the object-oriented activity, which aimed to increase the students’ understanding of astronomy. Barab, Schatz, & Scheckler (2004) focused on an online community of mathematics and science teachers, with activity theory used to analyse the
community from the perspective of the designers and the teachers who used it. In a separate study, Yamagata-Lynch (2003) drew on activity systems analysis to gain an understanding of the long-term impact that a professional development program had upon the teachers who participated, as well as the flow-on effects this had in their workplaces. These studies act as examples of the wide range of applications that activity system analysis has been used for.

While activity theory is a useful tool for analysing data, Engeström (1993) notes that it does not offer a prescriptive list of data collection methods. As this analytical tool is used in a wide range of disciplines to cover diverse activities and contexts, data collection tools are also diverse. In my context, activity system analysis drew on information from questionnaires, English Reports, interactions on Facebook, interviews, and notes from my reflective journal to gain a deep understanding of what influences students’ learning practices and the role teachers can play to support them. Knowledge about the data collection tools used in this study may be of value to those who wish to deepen their understanding of this theory by looking at a range of practical applications. This is important because well-defined methods for using this system have not yet been agreed upon, but reading about how it has been used in different projects will make it easier to understand how the framework can be used in various settings (Yamagata-Lynch, 2010).

Understanding exactly what was done during data analysis can be difficult when dealing with qualitative data and complex systems as it is not always clear how researchers arrived at their results. I drew on data sources in multiple ways. For example, as community is a central element of activity theory analysis, parts of interviews that related to influences of social interaction were coded as “community”. Activity theory was also used to organise and analyse data from interviews, English Reports, comments in the class Facebook Group, and my reflective journal to create activity systems, which are visual depictions of the key aspects of activity theory mentioned above. To further clarify how data was drawn on, I will provide a detailed example to illustrate steps involved in creating one of the activity systems in this thesis. The first activity system that is presented in Chapter Four (Figure 4.5) explores formal English education in Japan and the subjects are high school students. When completing other nodes of the activity system, like tools and rules, interviews and questionnaire data were analysed for information that pertained to each node, with relevant quotations from interview transcripts collated together for comparison. From this data, a representative statement was made for the node and refined after looking at data for further evidence of support or negation. As an added measure,
interviewees were asked questions about a draft at end of their second interview. These were generally confirmation questions, as information for the nodes was already listed, but they were offered opportunities to expand. The questions were phrased in terms they would understand rather than in activity theory terminology. For example, they were asked if passing the university entrance exam was their main English language goal in high school or if there was something else more important to them. Some parts were not mentioned in any data that had been collected but were part of my general knowledge as an educator in Japan so I sought confirmation. For example, I asked them if their lessons and homework were done in a mixture of Japanese and English so that I could confirm they had both linguistic resources as a mediating tool. Activity systems that were produced later in the study were also created by combining multiple data sources, with each student’s contributions placed in folders and analysed as sets, looking for patterns across interview transcripts, English Reports and comments on Facebook, as well as referring to questionnaire data where relevant. To further support the data analysis, quotations from students across these data sources and my own contributions to Facebook, and the interviews are shared in the results chapters as supporting evidence.

Activity systems analysis is also concerned with identifying systemic contradictions and tensions and I used multiple data sources to identify them. Systemic contradictions exist beyond a single activity but also within it and create tensions within activity systems (Yamagata-Lynch, 2010). According to Yamagata-Lynch, “tensions can affect the subject’s ability to achieve the object by taking a role as an obstacle, making it difficult for the subject to obtain the object” (2010, p. 2). Therefore, to identify tensions, I looked for potential obstacles between objects and other nodes, and once I felt I had identified them, I looked through the interviews, questionnaires and English Reports for evidence that supported my assertion. I endeavoured to identify the systemic contradictions by asking what could cause the tensions, and once potential contradictions were identified, I sought evidence in the data then turned to the activity systems again to question whether they created further tensions. This cycle of questioning, hypothesising and seeking evidence underwent multiple iterations until I believed I had enough evidence to propose the contradictions and tensions that are put forward in this thesis.
3.9 Measures Taken to Obtain Trustworthy Data

Studies are only useful if their data are trustworthy so steps that would increase trustworthiness in this study were carefully considered. One way that it was addressed was through the use of the participants’ L1 in data collection. The questionnaires were all administered in Japanese and interviews were conducted in English, Japanese, or a mixture of the two, depending on the student’s preferences and their ability to express themselves. Those who decided to do their interviews in English were free to respond in Japanese at any point, and although I asked most of my questions in English, I also prepared written translations that I referred interviewees to when needed. The L1 options were provided to increase the likelihood that students would understand what was being asked of them and allow them to respond in a full and detailed manner, thus increasing the likelihood that the data collected were a true representation of the participants’ thoughts and experiences.

In addition, member checks were used in three main ways to increase trustworthiness. First, some of the data collected in the questionnaires were triangulated through interviews to ensure that the data that participants provided in the questionnaires reflected what they really wanted to say, and to follow up on themes that were identified in the questionnaires. In mixed-methods research, triangulation refers to combining quantitative and qualitative data to seek corroboration (Bryman, 2006). The interviews were partially based on questionnaire data, so in the interviews there were opportunities to build on information provided in the questionnaires and question participants about any parts that were missing or seemed contradictory. Second, member checks were used to check the accuracy of the interview data. As noted above, the interviews were all transcribed in full and, if relevant, translated, with any areas that had proved problematic to translate checked directly with the participants. Furthermore, students were given copies of their transcripts and asked to read them and contact me within a few weeks if any parts did not represent what they recalled saying.

Early versions of some activity systems, which I produced based on information from a range of data sources, were checked face-to-face with each student, with changes negotiated together. As the students were not familiar with activity theory the questions I posed were only used to check that my understanding of data was correct. To do this, I looked at the activity systems I had made and addressed what I had recorded for each
node with them. For example, I had inferred from interviews and my knowledge of the Japanese education system that the primary object in high school for most participants was gaining entrance to university, so I asked students if that was the case. Also, some students had directly mentioned the tools they used in high school but others hadn’t, so I checked that what I had listed under tools was correct and asked if any more should be added. Taking steps like this allowed me to verify and correct my assumptions, which served to increase the study’s trustworthiness.

Finally, trustworthiness was also addressed through my reflective journal. Memories fade in the time that it takes to move from data collection to thesis writing, so detailed notes were needed to ensure that information provided about the Teaching Period is accurate. As a teacher-researcher who needed to focus on teaching during lessons, I could not make meticulous notes on every aspect of my lessons, but accurately reflecting the steps that were taken during the Teaching Period is essential, so notes were made after each lesson and occasionally between lessons, and these notes were used to create the overview introduced earlier that appears in Appendix F. By writing the reflective journal immediately after lessons, I could ensure that the overview was based on recent recollections rather than fading memories, adding rigour to my body of work.

3.10 Ethical Considerations

This research was conducted in a Japanese university as part of a doctoral degree at an Australian institution, Charles Sturt University (CSU). Due to this, clearance to proceed was sought and gained from both the research site and CSU. All research undertaken by students or staff at CSU at the time of this study required the researcher to gain approval from a Human Research Ethics Committee before data were collected. Contact details and the protocol number for approval of this project are provided in Appendix K.

Preparing for ethics approval helped me to integrate several steps that contributed to this study being conducted in a way that was ethically sound. First of all, to ensure participants understood my study and their rights, participant information sheets and consent forms were provided. The majority of the participants in this study (all participants other than the six interviewees) provided anonymous questionnaire data and they were given participant information sheets that gave an overview of the study and their rights. Each questionnaire came with a participant information sheet, translated into Japanese, that
stated the purpose of the research, outlined how the data would be used, and stated that participation was voluntary and would have no impact upon their grades. It instructed students not to complete the questionnaires if they did not consent to their data being used in the study.

A small group of six students participated in face-to-face interviews, agreed to allow some of their coursework to be used as data, and provided a code that allowed their anonymous questionnaires to be identified. As these participants were asked to share information that could not be collected anonymously, they were also provided with a more detailed participant information sheet and a consent form, both in Japanese. While Bryman cautions that having to sign to acknowledge informed consent “may prompt rather than alleviate concerns on the part of prospective participants, so that they end up declining being involved” (2008, p. 123), the consent form was used to help to ensure the participants understood what was being asked of them and that they were participating of their own free will. By signing, participants agreed that the purpose of the research had been explained and understood, that they knew they were free to decide not to take part in the research at any time without consequence, and that confidentiality was assured. The consent form also noted that oral interviews with participants would be recorded, that coursework they did in the writing course could be used as data, and that data they provided for the study may be published but that no identifying details would be used. Finally, the sheet informed participants that the research had gained ethics approval and provided relevant contact details for enquiries or issues related to ethics and the research project.

As my role as a teacher meant there was an unbalanced power-relationship with the students, care needed to be taken to avoid coercion and pressure. The *National Statement on Ethical Conduct in Human Research 2007 (Updated 2018)* (National Health and Medical Research Council, Australian Research Council & Universities Australia, 2018), is a guiding document for research studies conducted through Australian universities, and stipulates the following:

No person should be subject to coercion or pressure in deciding whether to participate. Even where there is no overt coercion or pressure, consent might reflect deference to the researcher’s perceived position of power, or to someone else’s wishes. Here as always, a person should be included as a participant only if his or her consent is voluntary. (p. 17)
I attempted to reduce the likelihood of students feeling coerced to participate by delaying invitations to participate in any sections of the study that were not anonymous until after all grading for their writing course had been completed and in addition to providing written participant information and consent sheets, I checked face-to-face with participants if they were certain they wanted to continue and assured them multiple times that they were under no obligation to participate and could drop out without reason or penalty at any stage. However, while these steps were taken, it must be acknowledged that some students still may have found it difficult to refuse the invitations due to their sense of obligation to me as their teacher.

3.11 Chapter Summary

This chapter has outlined and justified the study’s guiding methodological frameworks and introduced the research setting, participants and my position as a researcher. In addition, it has provided a thorough overview of my chosen data collection methods and instruments, data analysis methods and steps taken to enable data to be collected in a trustworthy and ethical manner.

In the following four chapters the study’s main findings are presented. Chapters Four to Six are divided into periods of time in the participants’ lives: pre-university (mainly high school), their first two semesters of university (the ten-month period from the start to the end of the writing course), and the six-month period that directly followed. In these three chapters, questionnaire data are used to historically contextualise students’ use of online tools and show changes over time. As the questionnaires targeted a variety of timespans and focal points, data are not presented one questionnaire at a time; rather, the data are interspersed throughout the findings chapters in the places where they can be most effectively employed. In addition, activity systems are used to explain the complex array of intertwining factors that influenced students at different stages of learning English. The final findings chapter, Chapter Seven, focuses on motivation, further examining some key points from the previous three chapters and presenting additional factors that encouraged students to use digital technology to develop their English skills and deterred them from using it.
Chapter Four: Students’ Experiences of Studying English Before University

4.1 Introduction

This is the first of the four chapters that shares the findings of my research. This chapter focuses on students’ pre-university experiences of English study and their attitudes towards digital technology as a learning tool at the beginning of the writing course. Descriptive statistics and activity systems analysis are used to examine the role of digital technology and the broader activity of learning English in high school. It begins by contextualising high school learning experiences with quantitative data from 128 first-year students in the English Department then draws on qualitative data from case study participants to look at high school learning experiences in more depth. The chapter also explores factors beyond the reach of school that led to online tool use in English.

4.2 Digital Technology in English Education: The Exception, Not the Rule

Although all data collection was done with tertiary-level students, English education in Japan starts long before that so this chapter begins with findings related to students’ pre-university experiences. In April 2014, Questionnaire One was completed by 128 students who were enrolled in Emiha University’s English Department’s first-year writing course. The vast majority (95%) of them had completed at least six years of formal English education before completing the questionnaire. Since 2011, English has been a required subject from the fifth grade of primary school (Japan MEXT Elementary and Secondary Education Bureau, 2008), but this began after students in this study had finished their primary school education. At that time, students typically studied English for three years at junior high school and three years at senior high school. As 59% of the participants had studied English for six years, it is likely that this represents standard secondary school education. Although the number and location of high schools that were represented by this sample is unknown, the English program at Emiha University has long attracted students from all over Japan so the 128 students who participated provide a snapshot of English education that represents a wide range of high schools.

An important story that is told by the questionnaire data is that web-based digital technology played a minor role in students’ high school English education. This is most
clearly shown by their responses to questions that asked about their use of the Internet and online tools. The Internet had only been used by a small proportion of the students for classwork or homework, with 9% having used it to work on their speaking skills, 10% for reading, 13% for writing, and 17% for listening, as depicted in Figure 4.1. Some students had used the Internet to work on multiple English language skills, but others had used it for single skills so total student usage rates were slightly above the highest skill-based figures. Data analysis shows that 26% of the students had used the Internet to work on at least one of these language skills. In other words, the vast majority (74%) had never used the Internet in their formal English education during high school.

![Bar chart showing Internet use for English language classwork or homework by skill area](image)

*Figure 4.1. Internet use in high school for English language classwork or homework by skill area (first-year English Department students, n = 128).*

The data indicate that students who entered the English Department were used to paper-based learning materials, with little formal experience of using digital technologies to improve their English skills. When participants were interviewed about how they felt upon learning that their writing classes would be held in a computer room, their responses ranged from feeling it was “very new” (Shizuka), to worrying that it would be “a little bit difficult” (Chika) and feeling nervous (Rei), surprised (Hiromi) or confused (Emiri and Kiyomi). This occurred despite attempts by the government three years before the study—when most of the students were commencing the first year of high school—to stimulate the incorporation of web-based tools into high school English education. An official government statement shows that the government aimed to take practical steps towards integrating web-based learning:

The Government shall provide education boards and schools with information regarding effective use of ICT [information and communication technologies], such as ICT-based international exchange and cooperative learning, use of ICT materials
for personal learning and extra-curricular study, employment of digital textbooks and teaching aids in classes, etc. (Japan MEXT Commission on the Development of Foreign Language Proficiency, 2011, p. 9)

This lengthier extract from the report shows an understanding of the value that web-based technologies could bring to ELLs in Japan:

Effective use of ICT is also important to expand opportunities to use English, and to improve students’ English skills. Particularly, international exchange with foreign schools and cooperative learning using ICT can provide opportunities to come across practical English that is difficult to acquire in regular classes, thus contributing to deeper understanding of both foreign cultures and own culture, and to stronger motivation for English learning. (Japan MEXT Commission on the Development of Foreign Language Proficiency, 2011, p. 8)

The report went on to extol the virtues of using ICTs for iterative learning and personal training and acknowledged that using them could allow learning opportunities to be tailored to student’s interest and proficiency level. However, with Questionnaire One data showing that only 26% of students had used the Internet in their high school English education, it is clear that government input had not translated into comprehensive teacher and learner uptake of web-based technology in this context. In order to capture the full range of students’ experiences with online tools in English, they were asked to identify online tools they had used either in their formal education or privately outside of school. Questionnaire One data on their use of technology relates to the following 16\(^9\) tool types:

- Social networking sites (e.g. Facebook, MIXI, Twitter)
- Blogs (e.g. Ameba, Livedoor, Blogger)
- Video sharing sites (e.g. YouTube, Vimeo)
- News sites (e.g. BBC, CNN, Asahi Shimbun)
- Games (computer/smartphone based)
- Audio call tools (e.g. Skype, Voxipop, LINE)
- Video call tools (e.g. Skype, Google Hangouts)
- Smartphone-based email or chat (e.g. LINE, iMessage)
- Computer-based email or chat (e.g. MSN, Gmail, Yahoo)
- Online dictionaries (including apps)
- Podcasts (e.g. Apple Store, BBC)
- Search engines (e.g. Yahoo, Google)
- Translation sites (e.g. Google Translate)
- English self-study sites (e.g. grammar quizzes)
- Wikis (e.g. Wikipedia)
- Apps (on smartphones or tablets)

\(^9\) Two additional tool types were included in the questionnaires but excluded from the results, as explained in the limitations section in Chapter Nine. These were online discussion (writing) tools and online presentation tools. Audio call tools were originally labelled as online discussion (speaking) tools.
Although Questionnaire One data show that only 26% of students had used the Internet in high school to work on listening, speaking, reading or writing for classwork or homework, 64% identified online tools they had used in English before starting university. This suggests that many students had used the Internet outside of school, doing tasks that were likely to have been “unseen” by their educators. In fact, reports on tool use show that 42% of the students who had not used the Internet in their formal education in high school had used at least one tool in English. However, approximately one in three students (36%) had never used any online tools in English, with this figure rising to 41% if usage of three basic tools—dictionaries, translation sites and search engines—is discounted.

More students had used online tools in English outside of school than within it, but none of the tools had been widely used. Figure 4.2 gives an overview of the percentage of students who had tried the surveyed tools. The type of tool that had the most users, video sharing sites, had been tried by 39% of students, with most others having far fewer users. Surprisingly, the types of tools that often appear in research reports of language teaching journals had not been used in English by most students. For example, social networking sites, which had appeared in numerous journal articles before data collection commenced, had only been used in English by 26% of students, and blogs, which have long held a position in language teaching research, had been all but ignored, with only 3% of students reporting they had used them in English. This difference may possibly be explained due to the fact that tools that are being reported on in most empirical studies are introduced by teacher-researchers (for example, Davies, 2015; Dizon, 2015; Mork, 2013; Ohashi, 2014b, 2016).
Although most students had not widely used online tools in English, this in no way indicates that they did not use them at all. Figure 4.3 shows that students had experience with a wide range of online tools in their L1, painting a picture of a group that was, in fact, active online. The participants were asked to list tools they had used “at least once” so there are limitations on what is known about the extent of their online activity, with a focus on breadth of use rather than depth. However, it is clear that the majority of students had tried most of the surveyed tools in their L1, indicating a familiarity with web-based technology. Over 90% of them reported prior experience with Internet search engines, video sharing sites, wikis, smartphone-based email/chat, apps, and audio call tools. Very few tools had been used by less than half of the students, with only news sites (42%), video call tools (38%), and English self-study sites\(^{11}\) (25%) used by a minority.

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\(^{10}\) Some students did not provide answers about their usage of some tools. In such cases, percentages are calculated based on the total number of responses for those tool types. The same method was used for calculating percentages in all graphs that follow that have a range given for the number of participants. See Appendix G for raw data.

\(^{11}\) There are many English self-study sites that have much more content in Japanese than English. This may partially explain the discrepancy between reported usage in L1 in Figure 4.3 and in English in Figure 4.2.
However, questionnaire data indicated resistance by some students towards adopting online tools within their English studies. This could not be seen as primarily stemming from a lack of access as smartphone ownership was near ubiquitous (96%), many owned a computer (79%), a minority owned a tablet (19%) and almost all of them (95%) had access to the Internet for devices other than/in addition to their smartphone at home. More could be understood from the final questionnaire item, which asked about the online tools that students would like to use in the writing course and prompted them to explain why they would not like to use any if that was their preference. The vast majority of participants skipped this open-ended question, but some gave responses that highlighted reasons for resistance. Representative responses have been paraphrased in Figure 4.4.

### Figure 4.3. Online tools students had used in their L1 before starting university (first-year English Department students, n = 125-128\(^{12}\)).

<table>
<thead>
<tr>
<th>Online tools</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Search engines</td>
<td>99%</td>
</tr>
<tr>
<td>Wikis</td>
<td>95%</td>
</tr>
<tr>
<td>Video sharing sites</td>
<td>95%</td>
</tr>
<tr>
<td>Email/chat (smartphone)</td>
<td>95%</td>
</tr>
<tr>
<td>Apps</td>
<td>92%</td>
</tr>
<tr>
<td>Audio call tools</td>
<td>91%</td>
</tr>
<tr>
<td>Social networking sites</td>
<td>87%</td>
</tr>
<tr>
<td>Email/chat (computer)</td>
<td>78%</td>
</tr>
<tr>
<td>Dictionaries</td>
<td>75%</td>
</tr>
<tr>
<td>Translation sites</td>
<td>73%</td>
</tr>
<tr>
<td>Games</td>
<td>67%</td>
</tr>
<tr>
<td>Podcasts</td>
<td>52%</td>
</tr>
<tr>
<td>Blogs</td>
<td>50%</td>
</tr>
<tr>
<td>News sites</td>
<td>42%</td>
</tr>
<tr>
<td>Video call tools</td>
<td>38%</td>
</tr>
<tr>
<td>English self-study sites</td>
<td>25%</td>
</tr>
</tbody>
</table>

12 Response rates vary as some participants skipped some items. Figures listed are percentages of valid answers. See Appendix G for raw data.
While these questionnaire data tell part of the students’ stories, the figures do not provide a comprehensive overview of the experiences they brought with them to university and leave many questions unanswered. In the remainder of this chapter their stories are elaborated upon by using Engeström’s (1987) activity theory framework to explore the activity of learning English in high school in Japan. This section considers the role of the rules, tools\(^\text{13}\) (mediating artefacts), community, division of labour, object and outcome in relation to the subject(s).

### 4.3 The Activity of Learning English in High School in Japan

Two key findings emerged from examining students’ high school experiences through activity systems. First, the main object of English study was to pass university entrance exams, and all other components within the activity system worked towards this goal, turning it into an activity that was predominately concerned with grammar, vocabulary and reading comprehension. Second, teachers were the community members who had the most influence upon students’ learning practices, including the educational materials that students used in class and for homework (tools students used to learn English), and they did not generally use this influence to introduce web-based tools. These findings are elaborated upon below.

\(^{13}\) Activity systems models refer to mediating artefacts and tools interchangeably. The term “tools” is used in all of the activity systems I created.
The data collected provide strong evidence to suggest that the activity of learning English in high school in Japan, depicted in Figure 4.5, is powered by a desire to prepare the subjects for university entrance exams. Interviewees in this study all indicated that getting into one of their preferred universities was the primary object driving their activity and data from the interviews and Questionnaire One provide evidence of the prioritization of exam-driven learning and teaching practices within their educational system. A strong link was found between multiple components of the activity system and the primary object of preparing students for university entrance exams. For instance, rules within the English education system favoured tasks designed to build skills that would be tested and students were not required to complete out-of-class study that was unrelated to this. They used tools (e.g. textbooks, CDs, support in Japanese) that were designed to help with exam preparation and their teachers took on the primary role in determining what was studied (division of labour).

![Diagram](image)

**Figure 4.5.** The activity of learning English in high school.

As an illustrative example, the following section focuses on the interaction of the primary object with one of those components—rules. In order to fully understand this, it is necessary to consider the systemic constraints that the entrance exam system places on formal education in Japanese high schools. The National Centre Test for University Admissions (hereafter referred to as the Centre Test) is a standardised exam administered by the National Centre for University Entrance Examinations that is used to make decisions for admissions at national, public and private universities throughout Japan.
(National Centre for University Entrance Examinations, 2015). A lot of universities also offer students an additional in-house entrance exam that mirrors this format. At the time of the study, the format of the Centre Test and many in-house entrance examinations meant that the best way for teachers to help students reach a favourable outcome (i.e. gain admission into a preferred university) was to focus on vocabulary, grammar and reading comprehension, with a smaller amount of time spent on short listening comprehension tasks.

The Japanese government has aimed to make English education in Japan more communicative for many years (Japan Commission on the Development of Foreign Language Proficiency, 2011; Japan MEXT Elementary and Secondary Education Bureau, 2008) and has described English proficiency as “crucial for Japan’s future” (Japan MEXT, 2014), but data from this study confirms that classroom tasks and homework mirrored the non-communicative content of entrance exams. There are plans to add writing and speaking sections to the standardized university entrance exam system in 2020 (“8 Private English Tests,” 2018), but as the ability to write and speak were not tested at the time students in this study were in high school, they were treated as peripheral. Data collected in Questionnaire One provides evidence of exam-driven learning, with 93% of participants indicating that they studied reading and grammar (central to entrance examinations) more than oral communication (not included in the Centre Test) in high school, and 93% reporting spending more time preparing for tests and exams than learning how to communicate in English. Data from interviewees suggests that it was a rule in their high schools to learn the type of English that would allow the m to pass university entrance exams. Chika’s experience, shared in her first interview, demonstrates this.

Chika: Almost [all of my] English classes [were] about study for the test, so we didn’t learn about daily English.
Louise: What type of tests did you take?
Chika: Mainly grammatical tests, and we never [took] a speaking test…

This was echoed in Kiyomi’s interview: “There were more grammar classes in my high school, and English oral communication wasn’t seen as important. There weren’t many classes for oral communication so I didn’t improve my communication skills in English.”

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14 As noted in Chapter Three, all underlined sections of transcripts were translated from Japanese.
The activity system depicted in Figure 4.6, which focuses on the subject, object and rules, pictorially represents the link between the subjects’ object of entering university and the classroom practices (rules) which support this.

![Figure 4.6](image)

*Figure 4.6. The relationship between rules and object in the activity of studying English in high school in Japan.*

When students had objects beyond exam preparation, the systemic contradiction of high school English education focusing on exam preparation led to a rule-object tension. For example, while Rei shared the object of entering university, she struggled with the historically entrenched practices that shaped the rules of her high school education because she also wanted to learn to communicate with others and to express her own thoughts in meaningful ways. The following interview extract shows her discontent with her experiences in high school.

**Louise:** How about your English classes in high school? What were they like? Can you tell me?

**Rei:** In high school?

**Louise:** Yes.

**Rei:** Sorry, boring. Yes, only writing, only reading, not talking, not speaking and so it’s so boring. I think the school [has] to begin providing lessons dealing with speaking more and more.

**Louise:** What kind of homework did you do in high school?

**Rei:** High school? Reading the textbooks. My high school [was] strict and the high school forced us to study English so hard. And so, they forced us to do the entrance exam of other [universities], including the [one] that we want to go to, and other [universities].

**Louise:** How many entrance exams did you have to prepare for in high school?
Rei: When I was the student at the third grade of high school, every English classes I [had] to do the entrance exam the teacher delivered and we couldn’t choose the [university it came from].

Louise: So your teacher gave you lots of different [universities’] entrance exams to practice with?

Rei: Yes, yes. So, maybe, [very] famous [universities], the entrance exam of [University A, B, C, D], and so on.

Louise: So what type of study did you have to do to prepare for those entrance exams?

Rei: First, those exams are so difficult to read, so we [had] to learn so many words by heart. And every English class we [had] to take the test of English words that our high school gave us. [We used the book] “Target 1900” and that book includes 1900 words and before the English classes began, the teacher gave us [a] little test and if we [couldn’t] take the good score, we [had] to take the same test after the class.

This extract shows a tension between Rei’s objects and the rules that guided her English education in high school. Her primary object was to get into a university of her choice, not some of the universities she was forced to prepare for, and her secondary object was to communicate with others in English. This resulting tension is depicted pictorially by the jagged line between rules and objects in Figure 4.7.

![Figure 4.7](image.png)

*Figure 4.7. A rule-object tension in Rei’s activity of studying English in high school.*

Rei’s sense of dissatisfaction with the system she had passed through and her view of it as a boring way to learn English are important to consider. She seemed ready for change after dealing with the resulting tension that she experienced due to the historically-entrenched contradiction that kept her formal English education firmly and almost exclusively focused on exam preparation (something she did not enjoy). Her experiences
with this tension and her identification with a secondary object that was not addressed by her formal education in the past may partially explain why she was open to trying new technologies and study methods when she commenced university. When she completed Questionnaire One in her first week of university, she wrote, “I don’t know online tools at all but I feel like studying English with online tools.” In her interview, she explained that she wrote this because, “In my image online tools [are] interesting. For example, I like to watch the video on the Internet and do the netsurfing so if I can know the online tools to study English I hope that I enjoy studying English.” However, she also explained, “I didn’t have the information about online tools at all and I had no idea to use online tools for study”, which shows her need for guidance. Engeström and Sannino describe contradictions as “the driving force of transformation” (2010, p. 5). Rei was certainly eager for transformation when offered the opportunity in university and later chapters will provide evidence of how she embraced change when given encouragement and support.

4.4 Teachers’ Avoidance of Web-Based Technology Mirrored by Students

The second key finding that data revealed is that community members—especially teachers—had a large impact upon the learning practices of students, and it appears that the lack of teacher-led integration of web-based tools into classes and homework may have led students to view online tools as disconnected from or peripheral to English study. The link between the subject, tools and community is shown in Figure 4.8.

Figure 4.8. The relationship between the subject, community and tools in the activity of studying English in high school in Japan.

15 Although all activity systems are driven by objects, some nodes are not included in this diagram to draw attention to the connection between the subject, tools and community. The object, rules and outcome are the same as those listed in Figure 4.5.
Activity theory defines a subject’s community as “the individuals and subgroups who share the same general object” (Engeström & Sannino, 2010, p. 6). For most students who completed Questionnaire One, it is likely the learning community was restricted to their teachers and classmates. They studied English in a country where English is not extensively used, so it is unlikely that many of them had access to English speakers beyond their classes and even if they did, those English speakers may not have shared the goal of helping students to develop their English skills. Support for this proposition comes from Questionnaire One, in which 39% of first-year students in the English Department indicated that not having English speakers to use online tools with in English was a deterrent to using them. This figure only applies to using web-based tools, but the lack of opportunities for students in Japan to use English outside of class is well-known by educators and acknowledged by the Japanese government (Japan MEXT Commission on the Development of Foreign Language Proficiency, 2011). Therefore, as opportunities to use English with people from outside of their schools were not common, the most influential—and in many cases the only—community members that students had were their teachers and classmates.

Teachers generally steered their students towards textbooks and worksheets rather than web-based tools. Data from Questionnaire One indicate that 100% of participants studied English with a textbook more than online, 98% wrote in English by hand more than on a computer, 96% did most of their English homework with a pen and paper, and, as previously noted in Section 4.2, only 26% had used online tools in English as part of their high school education. The interviewees all used textbooks as their main study tool and some mentioned worksheets and listening tasks. Hiromi used textbooks for "reading comprehension exercises, and to memorize English words.” Kiyomi said she studied with a grammar textbook and also did listening exercises. Emiri’s experience was similar, with homework tasks completed in textbooks and on worksheets. Chika “often used a textbook and… practice[d] English words, remember[ed] English words.” None of her Japanese teachers ever used computers in her English classes, but an American assistant language teacher occasionally taught them about American culture by sharing information with the class through his computer. However, Chika was never given the opportunity in class to actively use English online; instead, she was restricted to passively watching and listening from her desk, like she would if it were a DVD.
There was a strong connection between the tools that students used and their community which led to students relying on paper-based tools rather than web-based ones. The first reason was that teachers in students’ communities generally built lessons and homework tasks around paper-based materials and CDs, which led students to use them as primary tools for learning English. Teachers fulfilled a leadership role, guiding their students towards tools that would help them achieve their object. To frame this in activity theory terminology, the division of labour put most of the responsibility and power in the hands of educators, with students expected to complete assigned tasks using assigned tools. Little was expected of students beyond this, which may be a reason why all of the interviewees indicated that there was little or no English study/use beyond their classes and homework. For example, Kiyomi said she did not do any out-of-school English study because she was too busy studying other subjects, and although Emiri occasionally contacted people she knew in English or watched short movies on video sharing sites, she echoed a lack of regular engagement beyond her lessons, saying there was “no English time for me.”

The second reason for students using paper-based tools rather than web-based ones was that they mirrored the practices of their peers. Data from interviewees supports these notions. For example, Hiromi claimed she did not have any friends who used online tools in English, Kiyomi said she did not know any students who used them and neither of them had teachers who recommended online tools to them for English study. Furthermore, Rei claimed that she and her peers used “only books and [handouts] and we, the students in my high school, didn’t use online tools [for] studying English. Not at all.” All of the interviewees had taken Information Technology classes in high school but none of them had ever used a computer room for any other subjects. English was a subject that was studied with textbooks, not computers or other digital devices. For Kiyomi, the connection between web-based technology and her English education was initially difficult to see, so when she realised she would be using a computer room for her English writing classes at university, she said her initial reaction was to wonder why. Hiromi also reported feeling surprised, and Shizuka thought it was “new”. The other three interviewees reported having negative feelings. These reactions resulted from lack of familiarity with using computers in English, and this is partly because they had not used them to study English in high school. Although not required or even strongly encouraged, some of these students occasionally looked for additional materials on their own for extra study or leisure.
However, these practices do not seem to be linked to the students’ main learning community.

To conclude, the impact the community had upon the tools that students used to learn English in high school can be summarised as follows. First, teachers did not conduct English lessons in computer rooms, and it was uncommon for them to incorporate web-based learning into their courses, or encourage students to learn online. Instead, they directed students towards textbooks, worksheets and CDs. Secondly, classmates either did not use web-based tools to study English outside of class, or didn’t discuss their personal web-based learning experiences with each other. In other words, students did not generally learn about using online tools to study English, and with none of their community members regularly and openly using them, web-based tools were not widely taken up. Instead, students tended to use the more traditional learning tools that were recommended by their teachers and used by their peers.

4.5 Factors Beyond the Reach of School that Led to Online Tool Use in English

When Kiyomi, Hiromi and Chika started university they had all studied English for six years or longer, but they had never used English online. In terms of the educational materials they chose, these students only operated within the activity system of their formal education. The other three interviewees, Shizuka, Emiri and Rei, had some limited experiences using English online through out-of-school activity systems. As the main focus of data collection was on students’ experiences once they reached university the information available on these three students’ pre-university experiences is limited, but the little that is known of their out-of-school activity systems is worthy of consideration.

First, Rei’s experience with online tools began in the gap between finishing high school and starting university. She used the Internet in English for the first time a few weeks before she began university, when her cousin recommended a tutorial on how to apply makeup that was posted in English on YouTube. As shown in Figure 4.9, the object of this activity was to learn how to apply makeup, and the video clip was not introduced for English study. However, this was the first time that Rei had used YouTube in English and while the activity driven outcome was that she gained knowledge on how to apply makeup, an unintended outcome was that she had a positive experience using English online. She did not see it as a study tool at this point, noting, “I didn’t have information about online
tools at all [before starting university] and I had no idea [about how] to use online tools for study. My image about Internet was only playing games and watch[ing] the interesting video[s].” A few weeks after using YouTube in English for the first time, Rei wrote the following: “I don’t know online tools at all but I feel like studying English with online tools” (Questionnaire One). During her interview, she was not probed directly on the connection between her initial use of YouTube in English and this response, but said she wrote it because, “In my image online tools [are] interesting. For example, I like to watch video[s] on the Internet and do netsurfing so if I can know online tools to study English I hope that I enjoy studying English.” Although she did not immediately connect the make-up video to English study, in the writing course she returned to the same YouTube channel when prompted to choose online tools to study English, showing the long-term influence of her out-of-school activity system.

Figure 4.9. The influence of an out-of-school community member on Rei’s English development

Emiri had used a much wider range of online tools in English than Rei, but less is known about what influenced her so her out-of-school activity system(s) cannot be clearly defined. She had mainly studied with textbooks, and had never used online tools for English study in class or for homework in high school, but nonetheless had some personal experiences with video sharing sites, email/chat (computer-based), podcasts, search engines, and translation sites. She used YouTube the most, watching videos for fun about once a month, and turned to an online dictionary when she needed to check new words. Interviews did not probe the factors that led to her using these tools, but her use of email
in English was prompted by a friendship with someone who lived abroad. While her experiences of using online tools in English were positive, she did not list any of these tools when asked what she would like to use in her writing course, instead opting for “Google” as “Google is the biggest network in the world so I thought Google is the best online tool to use English.” Listing Google itself, rather than any of the specific tools that Google offers, and choosing it because it has a large network, rather than for the skills it could help her work on, suggests that Emiri was open to using technology but was not quite sure how it could be used to aid her English development.

On the surface, Shizuka’s experience is similar to Emiri’s. She had used six different types of online tools (wikis, self-study sites, search engines, video sharing sites, translation sites and online dictionaries) before starting university, but her usage was rather limited as she gave up using most of them soon after trying them. Understanding why these mediating tools were chosen then rejected would be illuminating, but as parts of interviews that focused on high school centred around formal English education, this was not probed. What is known is that even though she technically had tried out some online tools, she still felt that she had not really “used” them, which led to statements like, “In my high school days I haven’t used online tools.” She explained that the only time she tended to go online was when she did not have access to her preferred learning materials. She only regularly used online tools to look up words when she did not have her electronic dictionary—a small device most ELLs in Japanese high schools own that generally contains monolingual and bilingual Japanese/English dictionaries and is used in place of earlier paper-based counterparts. The activity of learning English in high school was primarily carried out with paper-based tools and her attempts at using online alternatives outside school had not been encouraging, so when she completed Questionnaire One in her first week of university, she expressed a desire to avoid using them, noting, “I don’t want to use any online tools because I [am not] used to using online tools.” Little is known about the out-of-school influences that prompted Shizuka to use online tools before she started university, but her resistance suggests that the experiences she had did not have a positive effect on her attitude towards the place of online tools in English education.

Looking at the collective experiences of the three interviewees who used online tools in English outside of their formal education, it seems that they used a limited range of them, their use did not become habitual, and they sometimes gave up on the tools before
learning to use them well. They did not seem to see a strong connection between online tools and their English development, and this tension may hark back to the ingrained practice within the formal education system of favouring paper-based materials and largely ignoring the potential of online tools for English language development. This shows the value the principle of historicity in activity theory can bring when used as an analytical tool, as reflecting back to the macro level of English education at high school in Japan and connecting it to micro level analysis of individual students’ experiences after they graduate can highlight important influences that shape activity. Although these interviewees used online tools in English before entering university, they tended to use them for objects that were not related to English development, such as learning to apply makeup well (Rei) and contacting friends (Emiri), or thought of them as second best, as demonstrated by Shizuka limiting her use of online dictionaries to times when she did not have her electronic dictionary. Furthermore, there was evidence of their experiences of using digital technologies being discounted as study, as despite Emiri’s use of several tools, when asked about private study or private use of English in high school, she responded that she’d had no time for English. Their experiences show an initial willingness to try using digital technology, but a lack of recognition of its potential contributions to learning and a lack of support or guidance to foster its use for English study.

4.6 Chapter Conclusion

This chapter has drawn on English language learning experiences that students from throughout Japan brought with them to university. Their experiences of learning English in Japanese high schools were geared towards the object of passing exams and gaining entrance to university. Due to this, learning English meant studying reading, vocabulary and grammar. Results showed that few students were given opportunities to use online tools to learn English within their formal education and that personal use of them in English beyond this context was limited. Students were strongly influenced by their school-based communities so the lack of usage outside of the school context appears to be linked to the lack of exposure within it.

When students in Japan finish high school, the entrance exams are behind them so the object that dominated their prior learning experiences disappears. At university, there is more room for student-directed study and teachers need to prepare students for the
attainment of a more diverse range of objects. When the 128 students in this study joined the English Department of Emiha University, they were divided into five classes, one of which I taught. Chapter Five follows this group of students through their first year of university, outlining the steps I undertook to assist them with the attainment of their individual English language learning objects through online tools, and assessing the impact this had on their learning practices.
Chapter Five: The First-Year of University

5.1 Introduction

The previous chapter focused on the activity of learning English at high school in Japan and examined pre-university use of online tools in students’ L1 and English. This chapter moves the focus from high school to university, following a class of ELLs through their first two semesters of tertiary studies. It focuses on students who took my English writing course; a course the English Department had offered for many years, that I modified to encourage autonomous, out-of-class English language learning through the use of digital technology.

The chapter starts by considering how students’ English learning activity systems changed when they entered university. Following this, statistical data from qualitative and qualitative data are drawn upon to illustrate the most significant changes that were found in students’ learning practices and show how their attitudes towards web-based technology changed during the writing course. Then the role of three central elements of the writing course (English Reports, the Facebook Group and the class community) are considered through the lens of activity theory. Finally, the activity systems of two interviewees are used to examine the impact of the writing course from the point of view of two types of students: those who were keen to adopt new ways of learning English and those who preferred to stay with their existing methods.

5.2 A New Learning Environment with New Activity Systems

When students in Japan finish high school and start university, their English education changes in significant ways. While multiple factors are at play, this can be partially attributed to the attainment of their object to pass university entrance exams and their movement to a new educational setting. A comparison of Figure 5.1 (previously introduced in Chapter Four as Figure 4.5) and Figure 5.2 highlights some of the main differences between students’ English learning activities in high school and university from an activity theory perspective. Figure 5.1 was created by drawing on data from questionnaires and interviews and adding my own knowledge of high school education in Japan and at the research site then doing member checks with interviewees to refine
my analysis. Figure 5.2 is based on the system that first-year students at Emiha University operated within during the years I worked at Emiha University before data collection commenced. The comparison is useful for understanding the baseline transition that students who moved from high school to university faced and accounts for some of changes the participants in this study faced.

Figure 5.1. The activity of learning English in high school as represented in Chapter Four\textsuperscript{16}.

Figure 5.2. The activity of learning English at Emiha University.

\textsuperscript{16} Previously introduced in Chapter Four.
Looked at together, these figures show that when students reached university, there were a number of changes. First of all, they no longer had access to Japanese as a resource in most of their English classes, and most homework tasks that were assigned contained no Japanese. This gave students a new (or for those who had experienced it in high school, an enlarged) type of learning community—one in which they were expected to communicate solely in English. The second key change was that the English Department expected students to work on their foundational English skills outside of class in order to have a level that would allow them to complete a wide variety of course-based assignments and tests. Teachers were expected to assign extra work to students who were struggling and to encourage all students to do more than just their assigned homework in order to raise their English level. Despite the changes between high school and university, students were still operating within an activity system that guided them towards objects that were set by the institution, and while a self-access centre was available, the compulsory classes had little inbuilt support for students’ pursuit of their personal objects.

In 2014, I adapted the writing course to encourage and support out-of-class learning through the use of digital technologies. Figure 5.3 shows the traditional structure of the writing course (not underlined) and additions (underlined) that were embedded into my writing course. First, emphasis was placed on students’ individual objects and learning practices and this had a significant effect on their overall activity, as it governed the type of study they did and the tools they used. Their personal objects and out-of-class learning practices were viewed as important and it became a rule for students in the class to acknowledge them as such and share them with other community members. The importance of personal objects and out-of-class learning practices was emphasized by creating the English Reports, a key tool in the writing course that the students had not experienced before.
Figure 5.3. The activity of learning English at Emiha University in a course designed to foster autonomous learning with online tools.

To reiterate from Chapter Three, for the first two reports, students were asked to use an online tool of their choice to study English then describe the experience by explaining what they used, how they studied with it, and how it helped them. They were also asked to write about any problems they had when using it. In the remaining seven English Reports, they were prompted to share their English language goals since the previous report, the online and offline tools they had used to address them, and other ways they had studied. They were also prompted to reflect on how the tasks they had done had helped them to address their goals, and to identify their goals for the next study period.

In order to complete the first two English Reports, students needed to use web-based tools. For the final seven reports, it was not required but was strongly encouraged both by the report form itself, which asked about their use of online tools, and in oral and written suggestions I gave to students for out-of-class study. Some students had already used some online tools in limited ways in high school, but adding them into the English Reports brought them into a much more prominent position, putting them beside textbooks as key tools for English learning. I had introduced online tools as part of the writing course in the past, but at a much more restricted level. My new, focused emphasis on digital technology resulted in a much wider range of web-based tools being integrated. There was also a change in the division of labour. In the writing course, students were required to select web-based materials to use outside of class, and were given support with this
from their teacher (me) and classmates. Some of this support was given during lessons, but most of it was provided outside of class through the class’s Facebook Group. It is interesting to note that by offering this online space, students were also able to communicate about objects that did not tie in with the main aims of the writing course. As their teacher, I did not see this as a distraction as I felt it was likely that their additional study, even when not tightly linked to course aims, would contribute to their overall English development and, in turn, their English writing skills.

Each of the changes outlined above played an integral role in shaping the students’ learning practices and attitudes. For example, introducing the Facebook Group to the course helped Shizuka find new tools to work towards her objects. She explained, “my English goal is to get high score in TOEIC so I have been using a word [app] on online tool so it is very useful and recently I have seen on Facebook my friend’s post and I know other [apps] and I am trying it now, so it is too useful.” The addition of the Facebook Group to the course gave students access to information about appropriate study tools that they could use to address their personal objects. This approach also supported changes to the division of labour in the activity system, with students taking charge of their own learning and helping each other to find ways to improve their English skills. This interaction took place outside of class, with the same community members that students met face-to-face in their lessons.

The above example brushes the surface of the effect the writing course had upon students. Although some of the changes that occurred are due to their transition from high school to university, it is clear that other changes were related to components that were added to the writing course to encourage and support autonomous, out-of-class study through the use of digital technologies. These key changes had significant effects in two main areas: firstly, the students’ use of online tools increased dramatically, and secondly, they developed more favourable attitudes towards using digital technology as a learning tool. The following sections explore changes in students’ learning practices and attitudes more fully, and show how these changes were connected to the writing course.

5.3 Increased Use of Digital Technology as a Language Learning Tool

One of the key findings that can be attributed to the writing course is that the learning practices of the students in this case study had changed dramatically by the end of it, with
all of them indicating experience with a wider range of online tools in English than they had when they began the course. At the start of the writing course, most of the tool types surveyed had been used by very few of the students in English. Figure 5.4 shows that even the most popular tools (video sharing sites and translation sites) had only been used by 27% of the students and some tools had not been used by any of them (news sites, blogs and video call tools).

Figure 5.4. Pre-course use of online tools in English (longitudinal case study participants, n =22).

By the end of the course a much wider range of tools had been used, as shown in Figure 5.5. When data collected at the start and end of the course are shown side by side, the dramatic increase in the range of tools used is obvious. The majority of the tools had been used by at least half of the students in English by the end of the course. Social networking usage reached 100% as using Facebook was part of the writing course, and email use (by computer or smartphone) also increased because I used email to send information to students during the course and they needed to contact me by email if they were absent. However, all of the other tools were used completely of the students’ own volition, which means the large increase in students’ use of online tools indicates a willingness to try using a variety of types of digital technologies outside of class. Comprehensive quantitative data about the activities that students did with digital technology are not available, but examples of both behaviourist approaches to learning, such as drill-and-practice vocabulary apps, and social constructivist approaches, in which students actively constructed their learning through interactions with others in more authentic settings, were found.
Figure 5.5. Pre-course and end-of-course experiences using online tools in English (longitudinal case study participants, n =19-22\(^{17}\)) *p < 0.05.

Analysis of data from the Facebook Group shows clear connections between the English Reports that students posted and subsequent usage by other students, providing evidence of students’ learning practices changing due to the influence of mediating tools (the Facebook Group and English Reports) and their community (classmates). For example, after reading about a classmate following The New York Times on Twitter in an English Report, Rei initially posted the following comment in the Facebook Group: “I think it is very useful to follow New York Times for your job hunting in the future.” Nine days later, she followed up with a recount of her own new experience, writing:

I begin to follow New York Times in Twitter. I read the article suggesting how important financial aid for college students from government is. The topic and explanation is so clear and interesting. Through reading it, I could get so important and useful knowledge. But, the words in article are too difficult for me to understand fastly. I need to learn English words more.

Emiri also decided to follow the New York Times on Twitter after reading the same English Report, and noted how she felt it would help her with vocabulary acquisition:

I think your idea is good for us to improve our English skills! I began to follow the New York [Times] on Twitter after I read your paragraph. I found that there are many difficult vocabulary but they will helps us to get more and more wide vocabulary.

\(^{17}\) All items are represented as a percentage of total valid responses, with some drawing on the full 22-student sample, and some end-of-course figures drawing on a sample as low as 19. Matched pairs were used to test for significance with McNemar’s test to overcome issues with missing data. Statistically significant increases are indicated with an asterisk. See Appendix G for raw data.
Hiromi decided to use Skype after reading about another student’s experience of using it in English. In a comment on her classmate’s post, she wrote, “I want to use Skype, too. Because it is very good way to improve speaking skill.” Two reports later, she documented her own experience with Skype in an English Report:

I had a conversation using Skype [with a friend]. I could not get a contact with foreign people if I did not use Skype. I was nervous during the conversation with foreign people. However, I could enjoy the conversation. I sometimes use gesture when I do not know how to say in English. I could improve my English speaking skill.

Hiromi had not used Skype in English before, and her classmate’s experience seems to have encouraged her to try something new. In the examples above, students simply sharing their experiences prompted others to try new tools themselves, but there was also a lot of evidence of students directly helping each other, as shown in the interaction between Rei and Shizuka below after Shizuka wrote about using the app Mikan in one of her English Reports.

Rei: What’s Mikan? Sounds interesting, I will check it with Google:-) Thanks!
Shizuka: Hi [Rei] and [another student who asked about Mikan]! Mikan is an [app]! At first, a word is put up on the screen, users [choose] “know!” or “don’t know” by tapping one of these. Until the user [chooses] all the words “know”. This practice is ten words on one time. Next, the users try to quiz, check if they memorize the meaning of the word by [choosing the] answer from four choices.

These examples demonstrate that students used new tools due to interactions with others in their classroom community. For example, part of the reason that the Facebook Group was set up was to allow the teacher and more knowledgeable classmates to scaffold the use of digital technologies, and Shizuka’s example above is just one of many instances of this scaffolding actually happening. Furthermore, the influence that community and social connectedness had upon students’ decisions to use particular tools is demonstrated in the examples above that show students taking action based on the actions of their peers.

The figures above show increased use of tool types across the 22-student sample but in order to understand if every one of them changed their use of online tools, and how much the class as a whole changed in terms of breadth of use, their questionnaire responses
needed to be analysed one by one and tabulated. As illustrated in Table 5.1\textsuperscript{18}, when students reported their pre-course experiences in Questionnaire One, 27% of them had never used any online tools in English, and a further 55% had only used one to three types of tools. What this means is 82% of them had little or no experience using this type of digital technology in English. However, by the end of the course, the vast majority of students (95%) had used more than three tool types in English, with most of them reporting using seven or more types and almost half of them listing at least ten types.

Table 5.1. *Pre-Course and End-of-Course Use of Online Tools in English (Longitudinal Case Study Participants, n =22)*

<table>
<thead>
<tr>
<th></th>
<th>Pre-Course</th>
<th>End of Course</th>
</tr>
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<tbody>
<tr>
<td>No experience</td>
<td>27% (6 students)</td>
<td>0%</td>
</tr>
<tr>
<td>1-3 tool types</td>
<td>55% (12 students)</td>
<td>5% (1 student)</td>
</tr>
<tr>
<td>4-6 tool types</td>
<td>14% (3 students)</td>
<td>18% (4 students)</td>
</tr>
<tr>
<td>7-9 tool types</td>
<td>5% (1 student)</td>
<td>32% (7 students)</td>
</tr>
<tr>
<td>10-12 tool types</td>
<td>0%</td>
<td>41% (9 students)</td>
</tr>
<tr>
<td>13-16 tool types</td>
<td>0%</td>
<td>5% (1 student)</td>
</tr>
</tbody>
</table>

When English tool use is averaged, an increased mean of 6.7\textsuperscript{19} tools per student can be seen (2.0 pre-course, 8.7 end-of-course). However, analysis of changes in each student’s tool use revealed that there was great variation in their willingness to try new technologies. At the extremes, there was one student who only tried one new tool (two pre-course, three end-of-course) and another who tried an additional 12 tool types (zero pre-course, twelve end-of-course). Despite these variations, it is clear that each and every student used at least one new type of web-based tool, and that most used many more. These findings confirm new mediating tools for English language learning were widely adopted.

Data from Questionnaire Two provides more information about how tool use changed. At the end of the writing course, students were asked to compare their English study practices at that point with the six-month period before they commenced the course. Figure 5.6 shows that at the end of the course, 100% of students used more types of online tools in English (as noted above), 96% used them more often, and 96% used them for longer durations. In addition to this, the vast majority (82%) had more confidence using them, better understood how to use them (77%) and felt better equipped to select tools that would help them to achieve their goals (73%).

\textsuperscript{18} Percentages in Table 5.1 do not tally to 100% due to rounding. All figures are calculated by dividing the total for each section by the total sample size (22).

\textsuperscript{19} Standard deviation of 2.9.
The dramatic rise in tool use that has been outlined above was accompanied by a corresponding shift in attitudes towards the use and value of online tools for learning English, as will be shown in the following section.

5.4 Changes in Attitudes Towards Web-based Technology

The second key finding of this chapter is that attitudes towards web-based tools changed dramatically during the writing course, with students mainly coming to view them positively and to value them as learning tools. Some attitudinal changes have already been alluded to in previous sections and will be elaborated upon more fully here.

In Questionnaire One, students were asked to write down the online tools they wanted to use in the writing course, and if they did not want to use any they were asked to explain why not. Of the 22 longitudinal case study participants, ten listed one tool, two listed two tools, three made no suggestions, and seven indicated that they did not want to use online tools in English. As the questionnaire only asked about the writing course, comments that expressed a desire to avoid online tools do not necessarily indicate that students were reluctant to use them in English for other purposes. However, the additional information provided in comments suggests this is likely. For example, three of the students wanted to avoid web-based technology because they could not use computers well, one felt it was difficult to use online tools, and another had tried them but could not get used to using them. Furthermore, one felt anxious using online tools, and the final student felt her English level was not high enough to be able to use them. These responses suggest that students rejected using online tools in the writing course for reasons other than their suitability to the course itself.
By the end of the writing course, attitudes had changed substantially. In Questionnaire Two, students were asked about the online tools they thought they would use to learn English in the six months after the course. The most salient point to note is that all seven of the students who had indicated they did not want to use online tools in English at the start of the course had listed tools that they planned to use for English study in the future. In fact, they all listed at least six tool types, with two of them listing 13 types. This indicates a change in the students’ attitudes, with their initial conceptions of online tools as something to avoid being replaced with new visions of them as study tools.

It is difficult to ascertain the extent to which usage changed perceptions and perceptions changed usage, as each had an on-going, interrelated impact upon the other. However, the reciprocal relationship between the two was prompted by teacher-led initiatives to facilitate the use of online tools for English language learning purposes, so it seems that initial changes came through usage. In the early stages of the Teaching Period, students were asked to try using an online tool of their choice to work on a personal learning goal and report on the experience to their teacher and classmates through the class’s Facebook Group. After that they were asked to report on their experiences of using web-based technology in English at periodically during the academic year. Creating assignments that were centred around online tools prompted students to engage with them. As the examples below demonstrate, this simple strategy contributed to a number of attitudinal shifts, which in turn led to changes in learning practices.

Shizuka’s personal accounts show how her perceptions of online tools changed dramatically. She was one of the students who entered the course feeling reluctant to use online tools in English, writing on Questionnaire One: “I don’t want to use any online tools because I [am not] used to using online tools.” When asked about this at the end of the course, after trying a range of online tools, she said, “My idea changed because I know many online tools and [they are] really fun and useful so I [no longer] think I don’t want to use [them].” She elaborated by explaining, “Before taking [the writing] class I didn’t know very useful applications, but after taking [this] class I know English studying way, [using] online tools, so I knew other English studying styles. It’s very good.”

Hiromi also entered the course quite reluctant to use digital technology, noting on the first questionnaire, “I don’t want to use any online tools because I can’t understand English very well.” When interviewed, she explained why she wrote this and how her views changed:
After I [started the writing course], I tried to search useful applications and other online tools. I [wrote] this because a computer monitor is not paper. I think I wrote it because I thought it would be difficult to study [with online tools], but now, perhaps I don’t think so because I learnt many ways of using them through the course.

Prior to taking the writing course, Hiromi did not see a connection between digital technologies and English study. She said, “In high school I used books and handouts to study, and I thought computers were used for entertainment, but when I took your class last year I thought, “Oh, I can use them like that. Oh, there are tools like that.” I thought it was good for me to know that.” When probed for a specific example, she explained how her views of YouTube changed, saying, “Until then I had never thought of watching clips in English. I just watched Japanese clips and I felt ‘Oh...’. I watched them in English and there were clips for studying English, and they weren’t that long, so I didn’t feel that I didn’t want to watch them, and thought they were quite good.”

Kiyomi, who began by resisting the use of web-based tools in the writing course because “I cannot use [computers] well”, echoed the positive attitudinal shifts of Shizuka and Hiromi, noting, “I had never been interested in online tools, and I had never thought about studying English with them, but after using tools that my classmates or teacher recommended I found they gave me opportunities to study more things than textbooks did. They are good, so I’d like to continue using them.” Furthermore, in Questionnaire One she indicated she was deterred from using online tools because of perceived privacy concerns and a reluctance to share her personal data online. In her first interview at the end of the course, she explained, “I was scared of being connected with many people in the world at first, but when I started using Facebook, I found out that I could use it without any photos and I could also block people, so I stopped worrying about it so much.”

Kiyomi’s interview response suggests that aspects of the writing course’s activity system directly impacted on her attitudinal change. The mediating tools embedded in the course to foster out-of-class learning with digital technologies (found in aspects of the writing course such as the Facebook Group, the English Reports and in-class activities) supported her use of online tools by building her operational skills with digital technologies, pushing her to attempt to use various tools as study aids and helping her to alleviate her fears concerning privacy. The rule of reporting on her out-of-class English study with online tools helped to foster her use of them and her interactions with her writing class community helped her to change her way of thinking about the role of web-based tools in
her English education, replacing her perception of them as too difficult or dangerous with acceptance of them as a valuable addition to her language learning tool-kit.

Factors that discouraged students from embracing online tools and course-based influences that changed their attitudes and action can be further understood by using activity system analysis, as depicted in Figure 5.7.

![Figure 5.7](image)

**Figure 5.7.** The role of the community and course-based tools in overcoming tensions.

This figure addresses several key issues. First, some students lacked the knowledge and skills required to use online tools in English and felt the Internet was unsafe. These factors prevented them from accepting online tools. To draw on Engeström’s (1987, 1991) activity theory terminology, a historically entrenched contradiction existed as for the most part, their English education until this point did not generally require or support the use of online tools, so students lacked the skills they needed to do what they were being asked to do and felt unsafe using this new tool. This contradiction—this lack of support in learning to use online tools effectively for study purposes—manifested itself as tensions between nodes within their activity systems. For example, as Figure 5.7 shows, there was a tension between subjects and tools as students were initially reluctant to use the tools they were being pushed towards out of concerns with safety and a lack of knowledge on how to use them. However, as shown by the small activity system in the top left of this figure, this tension was influenced by members of their writing course community and
meditating tools in the course, and this led to the initial tension between the subjects and tools that are depicted in the larger activity system being resolved or diminished.

The second tension, shown between the tools and object nodes in Figure 5.7, can also be traced back to the contradiction above (i.e. their formal learning environment largely ignoring the use of online tools for language learning). Students were used to using online tools socially, not for study, so some merely saw them as tools for entertainment, overlooking their potential as tools that could help them reach their English language learning objects. However, during the writing course, students could see evidence of ways that online tools could be used for language learning through their classmates’ English Reports and comments from their teacher and classmates in the Facebook Group (as depicted in the activity system in the top right of Figure 5.7). This prompted some of them to try online tools that related to their specific learning objects. Examples like these indicate that the course-based tools (English Report and Facebook Group) and the class community played significant roles in changing both students’ attitudes and learning practices. Their importance in facilitating these changes are expanded upon in the following sections.

5.5 The Role of the English Reports, the Facebook Group and the Writing Course Community in Changing Learning Practices and Attitudes

As demonstrated earlier in this chapter, there were clear changes in students’ learning practices and attitudes towards online tools, and it seems that the English Reports, Facebook Group and writing course community were significant in contributing to the changes described. Data collected from the six interviewees show that offering students opportunities to use online tools in their English course contributed to them viewing these tools more favourably, but that exposure alone was not responsible for these changes. The participants generally had little experience with web-based technology as a learning aid when they began the course, so they did not fully understand its potential role in their English development. By learning about the tools from other community members through the English Reports and Facebook Group, and trying them out themselves, they were able to gain a substantial amount of knowledge and skills and this had a large impact on their attitudes and subsequent learning practices. Furthermore, by learning about basic web security, students who had previously held privacy concerns were able to feel safer
using the Internet. The following section provides demonstrative examples by sharing some interactions between members of the writing course community.

The first example relates to an early English Report by Emiri, which noted that she had used Skype to chat in English with a friend. She wrote:

I used Skype and talked with my friend who is very good at speaking English. I [was] glad to talk to her. And I felt Skype is very useful and nice because we can talk like face-to-face talking. I felt as if she was close to me. But sometimes Skype surprises me and I think it may [be] dangerous. In Skype, people can search whoever Skype user all of the world. So sometimes the stranger calls me in the Skype. I think it is not good point however it is also benefit point of Skype.

This led to a thread of 18 comments, which were made by me, Emiri, and her classmates. The thread is shown in Figure 5.8, with edits made to exclude students who did not give permission for their contributions to be shared. This thread shows examples of information about privacy settings and operational support (from me), encouragement and praise (from me and Emiri’s classmates), and acknowledgement that using Skype is beneficial for learning English (from me, Emiri and her classmates).

<table>
<thead>
<tr>
<th>Teacher-Student Interaction</th>
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<tbody>
<tr>
<td><strong>My Comment</strong></td>
</tr>
<tr>
<td>Louise Ohashi</td>
</tr>
<tr>
<td><strong>Emiri’s Reply</strong></td>
</tr>
<tr>
<td>Ms.Ohashi</td>
</tr>
</tbody>
</table>

6 June 2014 at 19:59 · Like · Remove Preview
22 June 2014 at 22:05 · Like
Student-to-Student Interaction

Comments from Rei, Shizuka and Hiromi

Once I tried to talk with my friend in America in Skype, but I couldn’t. It’s too difficult for me. You have a wonderful English skill!
12 June 2014 at 13:30 · Like

I use Skype too! but I talk with my friend in Japanese only. So I want to talk with some good English speaker 😊
13 June 2014 at 08:58 · Like

To use Skype is very interesting way for me. I want to use it to study English. However, It is horrible for me someone’s call.
14 June 2014 at 22:24 · Like

Emiri’s Replies to Rei, Shizuka and Hiromi

Actually my friend is Japanese so I used Japanese a little. 😊 I want to be able to good at speaking English!
22 June 2014 at 22:31 · Like

Thank you for your comments! I tried to use English but I found it is very difficult! But it is also help us to improve our English skill.
22 June 2014 at 22:39 · Edited · Like

Thank you for your comments! I must set my privacy settings:-)
22 June 2014 at 22:49 · Like

Figure 5.8. Facebook thread showing teacher and student interactions about Skype.

The second example, depicted in Figure 5.9, is an exchange between Chika and myself which shows how teacher feedback aimed to match online tools with a student’s object. It also gives further evidence of efforts to foster operational skills needed for tool use, and shows how students were encouraged to turn to each other for help with tool use.
These illustrative examples provide a glimpse into the ways that the writing course community and the course-based mediating tools helped to foster the use of online tools for language learning. In the sections below, evidence from the six interviews is provided to further demonstrate how and why the writing course impacted upon students’ uptake of digital technologies, showing that the aspects embedded within the writing course to support out-of-class use of online tools were instrumental in leading to this happening.

First of all, Emiri directly attributed her changes in attitude to her experiences in the writing course. She said, “I think now [using] online tools is [a] very good way because there are many chances to talk with foreigners or we can listening or reading the real English so it is [a] good way, but if I can’t have last year’s experience [in the writing course], I can’t realise the good point of using online tools so it was [a] good experience.” She explained that during the course, she became proactive in her use of web-based tools for English study, noting, “before I started to use online tools I just [had a] negative image about using online tools because, I [was] told using online tools is very difficult, but [it’s] not so much difficult actually. And then, I became to use [them] more often than before now.” This hints at the importance of the community. In the past, the fact that she was told that web-based tools were difficult to use suggests her previous learning community discouraged her from using them. She explained that she didn’t have ideas of how to use online tools for English study before the course, but tried when given recommendations...
by her new community members, and acknowledged that taking the writing course was “a big reason” for her change in her out-of-class study methods.

Shizuka also attributed her change in attitude and learning style to the writing course, highlighting the role of the Facebook Group more directly: “When I entered university, [I thought the] Internet [was] useful but some information is not correct so some online tools [are] not good, so I [didn’t] use it. But through Facebook communication [in the writing course] or [my] own research, [I found there] are many good online tools, so I [have come] to use many online tools.” These experiences led her to not only accept digital technologies as useful for her own learning, but also made her feel that they were worth recommending to others. Therefore, both the learning community and tools introduced in the course were influential.

Chika also credits the writing course with changing her experience of learning English, calling it her “most worthwhile class.” She started out with no history of using web-based digital technologies in English, but was keen to try. During the course, her positive attitude intensified, and she developed a heightened sense of motivation, which was tied to the Facebook Group, English Reports and her writing course community, as shown in the following interview extract:

Chika: At first in April I thought it was difficult to use many online tools but I changed my mind.
Louise: Has our writing course changed the way that you think about using online tools to study English?
Chika: Yes, many friends introduced many online [tools] and it’s really, it make[s] me feel like studying more, using [online tools].
Louise: Did you use online tools in English in other classes at university?
Chika: Other class? Maybe no.
Louise: If you didn’t join [the writing] class, do you think your ideas about online tools would have changed?
Chika: Maybe because of [the writing] class I could find many useful application and also, we use Facebook and [English Reports]. I enjoyed it and every week I was looking forward to seeing other students using online tools.

In Hiromi’s case, the push to try new tools was what led to attitudinal changes. She said that she used paper-based materials because she was familiar with them and had not been exposed to other options. However, the first English Report set off a chain of experiences that led to changes in her perceptions:

Louise: Which part of the course made you change your opinion?
Hiromi: When I did an assignment on using online tools [for the first English Report], I couldn’t do it without using some, so I had to use them.

Louise: I see. Right.

Hiromi: Then, I used them and thought it was easy, even though it was a different way to study, and found it was not worse than paper-based study after all.

Louise: So, you changed your way of thinking because of that homework task?

Hiromi: Yes.

Rei was also strongly influenced by the writing course. Like Hiromi, she did not have a history of using online tools for English study, but she was interested in trying to use them. However, when she first realised she would take the writing course in a computer room, she said she felt, “Surprised. I had no idea to study English with online tools so I didn’t know the online tools at all and so I thought, ‘How can I study English with online tools?’” After using a range of such tools during the writing course, her feelings about studying and about English itself changed considerably, as shown in the following exchange:

Rei: Thanks to online tools, I can enjoy studying English and before using online tools for studying English... I had to brace myself to study English before. My image of studying English was it was something to do for the sake of studying. For instance, I had to study English to take entrance exams or tests. But when I started using online tools, I studied more practical English.

She continued by explaining, “Thanks to the writing English class I can know that we can enjoy studying English. I think we have to learn English not only for getting a good score, but also for my life, our life.”

The final interviewee, Kiyomi, also felt that she changed because of her experience in the writing course. She initially felt inhibited by her lack of knowledge, but the exchange below shows that the writing course helped her to overcome this obstacle.

Louise: On your first questionnaire, you wrote, “I don’t want to use any online tools because I cannot use [computers] well.” Is this still true? This sentence, now? Or has your opinion changed?

Kiyomi: Changed.

Louise: Can you tell me about that?

Kiyomi: Although I didn’t know how to use them, my friends and teacher helped me to get used to doing it. And I learned many things through online tools, so I’d like to use them.
After learning about and using a range of online tools during the writing course, students’ willingness to accept web-based technology and their estimation of its value as a learning tool increased, but perceptions may not have remained positive if students did not have access to support from their teacher and classmates. This support extended to areas such as assistance with managing online privacy. Online privacy was discussed in class and information about privacy settings was shared in the Facebook Group. Kiyomi provides a good example of the effect that knowledge of privacy settings can have upon willingness to use online technology. Before the writing course she saw the Internet as a dangerous place, but this changed when she learnt how to protect her privacy. She explained, “At first, I was worried about my personal information, but I found out there are some ways to protect it. I thought that was good, so then I wanted to use [online tools].” Ways to protect privacy and limit the amount of personal information that is shared were discussed in class and shared through the Facebook Group, which had a direct impact on students’ views and practices. In the earlier example in which Emiri reported having security concerns over Skype (Figure 5.7), the information I added about security settings was a small but important form of scaffolding that brought her and others closer to understanding the options available to maintain online safety. Emiri’s reply showed she had been unfamiliar with the option to control her security settings: “I didn’t know that I can change the settings! I will change my privacy setting immediately! Thank you!!” Had she not known this, she may have become deterred from continuing to use Skype, which suggests that teachers can play an important role in mediating the safe and effective use of online tools, and this mediation becomes part of the students’ activity system as it affects their tool use.

For some, only a low level of support is needed for privacy but others need much more and teachers should be aware of this. Rei’s experience with the language exchange website Lang-8 shows how direct teacher support at an early stage would have been beneficial. Rei set up an account to post her English writing in order to have other members check it. However, she found that she was constantly contacted by males who wanted to chat with her instead of checking her texts. In one of her English Reports, she wrote, “First, on Lang-8 I uploaded my sentences, and many foreigners correct[ed] them. After that, most of them sent me a friend request. After some days, I did chats and talk with one of them on Skype and LINE.” She sounded satisfied with this but it concerned me enough to prompt me to include the following information in my response to her on Facebook:
Meeting other people online and then chatting through Skype is a good way to study, but make sure you protect your privacy when you do it. Most people just want to exchange languages and it’s really fun learning from each other, but there are untrustworthy people out there too so be careful about sharing personal information. I’m super cautious about that kind of thing.

She replied to say she would be careful, then she, another student and I continued writing until there was a thread of 18 comments that centred around other topics and learning materials. At the time, I did not know that she had given one of the men her real name and that he knew where she studied and had asked her to meet him. She felt uncomfortable with meeting him so after a while she broke contact with him. During the interview, she told me she had already given away her private information by the time she saw my comment. She went on to explain, “You said you have to be careful for privacy. To tell the truth, I felt shocked. I was shocked, but I replied noncommittally because everyone could see my comment on the Internet. But I thought to myself “I made a mistake!” When I read it, I remember regretting [not protecting my privacy] very much but replying with a light comment.”

At that point, privacy had been discussed in class and had been addressed in some Facebook posts and comments so I was surprised that Rei felt shocked. However, her experience shows that she needed to hear it more explicitly. After her negative experience with Lang-8 she closed her account and made a new one with a different appearance, explaining, “When my account is girlish so many boys tried to contact but now my account is boyish and simple and not many boys try to contact me.” However, it seems she lost trust for the tool, as she stopped using it and in her recommendations for students who would join the writing course in the following year, she said, “I can’t recommend Lang-8 but I want to recommend Lyrics Training and if they have the friend in foreign country I recommend to contact with them on Skype, LINE and iMessage and maybe Face Time.” The experience did not turn her away from all web-based tools, but it clearly left her quite shaken. As her teacher, it reinforced to me the need to discuss online security and privacy settings with learners in greater detail at an early point in their course.

The findings presented thus far have shown that participating in the writing course led to increased web-based tool use and attitudinal changes. While all students used online tools for out-of-class language learning during the course, some did so with greater enthusiasm and openness towards them than others. In the next section, I focus on two of the
interviewees, digging more deeply into their different yet equally valid experiences to highlight some of the complexities that can affect individual learners. Through them, I share the story of a student who was eager for new learning practices (Chika) and a student who preferred to maintain familiar learning practices (Shizuka). Their interview transcripts, questionnaire responses and English Reports are used to demonstrate how these students—who like all learners were part of multiple activity systems within various aspects of their lives—were affected by the broader activity system of the writing course.

5.6 Students Eager for New Learning Practices: Chika’s Story

In this section, Chika’s story is used to provide an example of a learner who was eager to actively embrace new learning practices and demonstrates some of the complexities that led to this. Chika had not used online tools in English before starting university but consistently showed her willingness to try new learning tools and methods and had used 12 of the surveyed tool types by the end of the course. In high school, her primary English object was to do well using English under test conditions so she could get into a university of her choice. The first indication of objects that replaced this was discovered when she introduced the app Umano in the first English Report, shown below:

To improve the ability of listening comprehension, I use the application for Android named Umano. This application offers us various news article announced by native speaker. Furthermore, the articles are delivered by famous media such as BBC, CNN, WSJ, New York Times, and so on. So, we can enjoy various category of article. It means we can learn a lot of vocabulary and native expression. In this application, we can adjust the speed, and also rewind 15 second, so we do not have to worry about missing the words. I usually use it, when I take trains to go to school because it takes one and a half hours to transfer the next train. So, I have a lot of time to study English. One of my favorite articles is “20 Tiny Thoughts Crushing Your Biggest Dreams”. I was really thankful for this article because it made me positive and gave me exactly what I needed, the courage to the future. Whenever I use this application, I can learn not only English but also wisdom that makes my life better. So, I really recommend it.

Although the way the English Report is expressed may make it sound like she had been using the tool for quite some time, the report was posted in June 2014 and she confirmed that she found it around then, in response to being asked to select a tool to use in English for homework. Therefore, adding the English Report task to the writing course had led to changes in the way she studied outside of class. It seemed that Chika chose to look for a
tool that would address her desire to improve her English listening comprehension and allow her to satisfy other non-linguistic desires, such as enjoying different types of news articles and building hope for the future. In Norton’s (2013) terms, there was evidence of multiple reasons for investment in using this tool. However, it is also possible that these benefits became apparent after she started using Umano, and understanding its potential to fulfil multiple needs may have increased her enthusiasm for it. Either way, it can be surmised that its ability to address multiple objects positively influenced her attitude and use of the tool. Her desire to target dual objects simultaneously was further highlighted in the following interview extract:

Chika: I’d like to know about society more, so I read articles [on online] news sites.
Louise: Ah, BBC, CNN, that kind of thing?
Chika: Yes.
Louise: You could get that information from Japanese news sites so why have you chosen to check the news in English?
Chika: In the future, I [want] to work using English so I think if I study [news in English] now, it will be useful in the future.

Chika was keen to take up new tools but it was initially unclear if her enthusiasm for them would continue throughout the writing course so this was checked by analysing her English Reports. English Report 3, which reported on the summer break period, shows evidence of continued use of Umano:

I listened to my favorite foreign songs and read the comment of them as much as possible to know how did the other native speaker feel about them. And also, I learnt how to express in English by checking my foreign friends’ Facebook page. Before going to bed, sometimes I used Umano to listen to English as many as possible and get accustomed to listening English.

These comments show Chika’s willingness to continue using Umano to develop her listening skills and also provide insight into her increasing attraction to tasks that involved others. She wrote that during the summer break, “I wanted to speak English more smoothly, talk with many people around the world. I wanted to improve my English speaking skills.” Although her actions do not directly seem to be related to those goals they addressed them in tangential ways, as she read comments on YouTube and Facebook to gain knowledge about the way people use English to express themselves in informal settings, and used YouTube and Umano to build listening skills, which are required for comfortable participation in conversations.
Chapter Five

Umano was mentioned in the next three English Reports (until mid-November) then seems to have been replaced by other listening tools, like TED Talks and TuneIn Radio. TED Talks is a tool that she became interested in while in high school but did not try to use before starting the writing course. She first wrote about it in English Report 2:

I have really loved TED since I for the first time watched it on TV when I was a high school [student]. It has given me a number of great ideas that changed my fixed ideas and, above all, it has worked well [for] learning useful English expressions and improving listening comprehension.

As with Umano, her affinity with the tool was not solely based on a desire to improve her English skills. She wrote that one of her favourite presentations was “Why We Have Too Few Women Leaders”, noting that the content of the video had a strong connection with other aspects of her life:

In the future, I will be a profoundly honored career woman, and some day, I might become a woman leader in the company. This is how, TED always changes a little me into a smart person. Whenever I lose confidence in English, feel sad, reach an impasse, I always watch TED because it always helps me in every single thing.

At the end of the course in January, Chika was still using TED Talks. However, other tools that she tried were dropped much more quickly. For example, she tried using a “robot chat” site that allowed her to exchange written texts with an automated response system. When interviewed, she said, “At first, I enjoyed it because he talked to me as a real human, I thought. But gradually I felt it is boring to [use] because he kept talking all the time so I thought I want to [talk to] a real native speaker so I stopped.” This infers that she had started matching her personal object of communicating with others to her selection of learning materials. After critically evaluating this mediating tool, it appears she had become dissatisfied with it as it did not emulate the kind of encounters that she envisaged herself having in English and seemed unlikely help her achieve her object of communicating with others in English. In this sense, she saw no value in further investment (Norton, 2013) in the tool. Furthermore, the extracts above show she had quite a strong image of her future self (Dörnyei, 2005, 2009), depicting an ideal L2 self that needed different support to what the robot chat software could offer.

When Chika’s learning practices during the course are compared with her high school experiences, large differences can be seen. In high school, her classes and homework
focused around preparing for written tests, and textbooks were her main study tool. Her learning was directed by her teachers and she was not required to identify personal learning objects that existed outside of those common to her classmates (the main one being to pass university entrance exams) or take steps towards achieving them. However, as university approached, she began preparing by watching some movies in English with English subtitles to get used to listening to English conversation. She said, “I wanted to learn English in college and so I thought I should prepare some English skills so I tried that.” This shows a willingness to take steps on her own as she was taking the “locus of control” for her learning (Benson, 2013, p. 840).

When Chika took the writing course, she built upon those initial attempts she made when watching those movies, and it could be argued that steps integrated into the course to introduce and require the use of online tools supported Chika’s tendency towards trying new things and autonomous learning. Interview data indicated she had taken some steps towards controlling her own learning before entering university—of acting of her own volition to improve her English skills—and while she had not tried to do this online she expressed an interest in doing so in Questionnaire One. The influence of different nodes within the writing course’s activity system helped her to develop a habit of identifying and reflecting on her personal objects and learn how to use a wide range of online tools to meet those objects and course-based ones, which in turn influenced her own personal English language learning activity system. Her use of online tools and her understanding of how they could help her meet her personal learning objects were encouraged by the course requirement to write learning goals in the English Reports. In addition to this, she was initially required (English Reports 1 and 2) then later encouraged (English Reports 3 to 9) to use web-based tools, and this gave her a push to try them. She got additional exposure to tools and feedback on how to operate them and use them to study through the Facebook Group. Chika had quite a well-developed image of the kind of person she wanted to be in the future and saw a prominent role for English and general knowledge. She was keen to combine her quest for knowledge with English practice, and through using web-based tools, she realised she could address both at once. By the end of the writing course, she had done a substantial amount of out-of-class study, had achieved her first two objects to a certain extent and was working towards her third, long-term, object. The relationship of all of these intertwining factors is depicted in Figure 5.10.
Figure 5.10. Chika’s English-related activity system during the writing course.

In her end-of-course interview, Chika said, “Of course we studied English in high school but it’s not enough to communicate with foreigners so you should connect with many people all over the world by using online [tools] and you should learn a lot of things from them.” This indicates that she felt that learning English in high school had not prepared her for life beyond the classroom, and believed that online tools could help address this object. Chika was open to using new tools and trying new study methods, and with the support from her writing class community, she was able to make some significant changes to the way she learnt English outside of class. However, she was very ambitious with big long-term plans for the future, and was ready to try new learning styles. Not all students were like her. In the following section, I consider a student who was less willing to embrace change, yet changed in some ways nonetheless.

5.7 Students Who Preferred Familiar Learning Practices: Shizuka’s Story

Some students were initially not keen to use new learning tools and study methods. Shizuka’s story is used to exemplify this and show some of the complexities that can shape students’ preferences. Her story shows how her initial reluctance to use web-based technology in English changed through her experiences in the writing course. In Questionnaire One, she indicated her unwillingness to use online tools in the course, noting that she had used them in the past but didn’t want to use them because she felt she hadn’t been able to grow accustomed to them. Her late entry into the Facebook
Group is further evidence of her lack of enthusiasm to engage with web-based tools, as she was one of the last to join\textsuperscript{20}. The second way Shizuka showed a preference for familiarity over change was through her primary English-related object, as it did not change substantially from the one she had in high school. It remained test-based, as she replaced her high school object of passing the university entrance exam with a new one of getting a high score on the TOEIC test, which is an English test that assesses listening and reading skills, and has a strong focus on grammatical accuracy. As shown in Figure 5.11, early in the course there was a tension between Shizuka’s attitude towards online tools (based on her prior experiences with them) and the rule within the class of expecting students to try using them to develop their English skills. As with earlier examples in this chapter, this tension may be traced back to the contradiction that existed within her secondary schooling, where online tools were largely ignored. In addition, there was an initial tension between being directed/encouraged to use online tools and Shizuka’s object, as she had faith in the paper-based study methods she had successfully employed to pass her university exam, which shared many similarities with the TOEIC test, and did not yet feel comfortable using web-based tools for English study.

\begin{figure}
\centering
\includegraphics[width=\textwidth]{activity_system.png}
\caption{Activity system of a student resistant to changing personal study habits (Shizuka).}
\end{figure}

Despite these issues, her learning practices did not remain unchanged throughout the course. Shizuka started seeking out online tools that addressed her test-based object and she used them long-term. In English Report 2 in June, she wrote the following:

\footnote{\textsuperscript{20}She was told she was not required to join and that she could submit her tasks in another way if preferred. She indicated she was not opposed to joining and joined soon after.}
I use English at the website, whose name is Weblio. It has many convenient service to improve English skill. It has services of dictionaries, example sentences, explanation about when the word is used, vocabulary check tests for TOEIC, TOFEL, the STEP-the Society for Testing English Proficiency, and so on. And I tried having the test for TOEIC, because I’m going to take it and I want to get better score. In this site, there are some [courses for different levels]. I chose getting 730 score course. It has many good points, for example, I can save words that I didn’t know in the test on my own word book, in this book, I can confirm their pronunciation. the site is very good. But it has only one problem. In vocabulary test, I don’t have to type the answer, only have to choose the answer from a, b, c, d. So sometimes I pass the question, just a fluke. URL: http://uwl.weblio.jp/vocab-index

Shizuka was still using Weblio when she completed English Report 5, but by English Report 6 she had discovered the app Mikan. She reported finding it herself, noting that she wanted to find new study materials for TOEIC so used the word TOEIC as a search term in Google and initially tried Mikan because it was at the top of the list. She added to this by explaining that she wanted to increase her vocabulary and “I saw many application[s] and [with] Mikan students can study in very small time and very it is speedy so it is good.” She continued using Mikan for the duration of the writing course.

These changes show that Shizuka used digital technologies to learn English, replacing paper with digital tools, but it is worth considering how this changed her learning practices and how she perceived the effects. In high school, she memorised vocabulary by writing down the English and Japanese forms of words then covering one of them to try to test herself. In university, she used Mikan to drill vocabulary online instead. She was not directly questioned about which method was more effective, but her long-term use of Mikan and her strong recommendations of it to other students through the Facebook Group are an indication that she found it worthwhile to continue using it. Furthermore, Mikan had ways of motivating Shizuka that paper-based methods did not. She said she was motivated to keep using it because “When trying it, it is really fun and in Mikan’s application, illustration is cute.” In addition, she explained, “When I finish test, some comment was showed and these comment is always positive comment. For example, one test is ten words and if students get ten point, “great” or “good” comment, but for example six points but comment was not negative…. so students… think next I will do hard, so students can’t give up.” These factors kept her coming back for more, initially on a daily basis, then later every two or three days. When interviewed after the course she said, “the application or online tools I installed [were for] writing or reading so I don’t use online tool to communicate in English. Thinking these point, my studying
style was not changed from high school. High school study [focused on] reading or writing skill.” However, the closing comments in her first interview suggest that she felt satisfied with the new role of online tools for these purposes: “[S]ome of new student, like me, she may think online tools study is not good [but] there are many helpful studying tools and I recommend to try it.” Shizuka’s story demonstrates that it is valuable for teachers to spend time introducing web-based tools even when students are initially resistant. Furthermore, it shows that online tools can be positively evaluated even if students have a strong preference for test-based learning, which flags a need for further investigation into how digital technologies may be integrated into the test-centric high school English education system.

5.8 Chapter Conclusion

The chapter shows that all of the students in this case study increased their use of web-based tools for English language learning and held positive attitudes towards their use by the end of the course. The findings indicate that these changes can be partially, and in some cases solely, attributed to their experiences in the writing course, which highlights a need for teacher-led initiatives and support with regard to the uptake of web-based tools in English language learning. In particular, the findings suggest that inclusion of the English Reports and the Facebook Group in the writing course led to positive changes in students’ out-of-class learning practices and their attitudes towards online tools, and that the learning community’s use of these tools played an essential role.

There was no space in Emiha University’s curriculum to comprehensively address students’ personal goals or foster their autonomous use of web-based tools for English language learning, but doing so in a limited way through the writing course had a valuable impact upon the participants. Students reported a range of benefits through the experiences they had in the course and showed a willingness to continue using web-based technology to study English and a desire to recommend it to new students who would enter university after them. These results are very encouraging, but did the students’ intentions to continue using web-based tools for English learning become a reality after the English Reports and Facebook Group were taken away and they moved into new learning communities? They were contacted six months after the course to find out, and the results are presented in the following chapter.
Chapter Six: The Six-Month Follow-Up Period

6.1 Introduction

Chapter Five presented strong evidence of changes to learning practices during the writing course, with students using web-based technology to learn English in new ways and for new purposes. This chapter examines the extent to which these changes continued to be adopted beyond the course, when teacher support for using web-based tools to address personal objects was no longer provided. Data show web-based tools remained integral to the out-of-class learning practices of some students—including those who had resisted them at the start—but not others. To understand what caused these differences, activity system analysis is employed.

This chapter begins with a comparative analysis (start-of-course, end-of-course, post-course) of web-based tool use to assess changes over time, based on responses collected from the 22 students from my writing class who completed Questionnaires One to Three (longitudinal case study participants). It follows this with an examination of factors that led to the learning practices acquired in the writing course being dropped or sustained, partially addressing it through focused analysis of two students whose post-course outcomes were very different. As individual students were operating within multiple interrelated activity systems, it clearly cannot be claimed that changes which occurred before and after the writing course were solely due to their experiences in the writing course and its subsequent ending. However, findings in this chapter highlight the importance of learning communities and point towards the need for long-term, course-based community support of out-of-class learning, particularly for students who do not have influential community members outside of their classrooms.

6.2 Snapshots of Class-wide Changes in Post-Course Online Tool Use

As shown in Chapter Five, the use of web-based tools in English increased dramatically during the writing course. This section examines what happened in the six months that followed, when structured teacher support for use of web-based technology for autonomous, out-of-class learning was no longer available. As a teacher, my object during the writing course was to help my students to develop their English skills within and
beyond my course, and I attempted to do this by providing them with opportunities to gain the skills and knowledge (mediating tools) required to select and use web-based technology (mediating tools) for out-of-class study. In doing so, I actively altered the rules to fully encompass use of the digital tools. Students reported a wide range of benefits to using online tools during the course so it was anticipated that many would continue to use them for English study. However, I expected a decline, firstly because students tried out many new tools in the course then dropped those they found unsuitable, and secondly, because there would no longer be an instructional endorsement from within their classes for them to use web-based tools for autonomous, out-of-class learning. Figure 6.1 shows that according to their self-reports, the anticipated drop in usage was realised, with most tools used by fewer students after the course, but these data also offer strong evidence of sustained use, as all of the tool types had been used by at least some of the students after the course, with many used by more than half of them.

Figure 6.1. End-of-course and post-course experiences using online tools in English (longitudinal case study participants, n = 19-22) *p < 0.05.

The long-term impact of the writing course may be even better understood by comparing the experiences of students before they began it and six months after completing it. Figure 6.2 shows that tool use rose dramatically in this period, with the majority of the tools used by substantially more students six months after the course than prior to it.

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21 All items are represented as a percentage of total valid responses, with some drawing on the full 22-student sample, and some figures drawing on a sample as low as 19. Matched pairs were used to test for significance with McNemar’s test to overcome issues with missing data. Statistically significant increases are indicated with an asterisk. See Appendix G for raw data.
Figure 6.2. Pre-course and post-course experiences using online tools in English (longitudinal case study participants, n = 19-2222) *p < 0.05.

The long-term effect of the course can also be seen through students’ questionnaire responses on other aspects related to tool use. Students compared their time in the writing course and the six months that followed it. The results, shown in Figure 6.3, indicate that six months after the Teaching Period, many students felt they better understood how to use online tools (68%) and select appropriate tools for their learning objects (55%). Half of them became more confident users and used more types of online tools in English, 36% used them for longer and 32% used them more frequently.

Figure 6.3. Post-course self-reports on online tool use (Teaching Period and six-month-post-course comparison, longitudinal case study participants, n = 22)

Unfortunately, a “remained constant” option was not offered, so it is important to note that those students who did not, for example, have “more” confidence, may have maintained or lost confidence. Despite this ambiguity, the figures provide evidence of

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22 All items are represented as a percentage of total valid responses, with some drawing on the full 22-student sample, and some figures drawing on a sample as low as 19. Matched pairs were used to test for significance with Mc Nemar’s test to overcome issues with missing data. Statistically significant increases are indicated with an asterisk. See Appendix G for raw data.
sustained and on-going positive changes to online tool use (breadth, length and frequency), skills (tool selection and operation/use) and user confidence.

6.2.1 The Gap Between Intentions and Reality

An important point to note is that actual online tool use did not generally align with students’ previously stated end-of-course intentions. This finding highlights the importance of completing a follow-up study rather than relying on students’ predictions of future action. When students completed their final English Report, they listed a wide range of online tools that they planned to use to address specific English-related objects after the course, and on Questionnaire Two they all indicated they intended to use online tools for their English development in the following six-month period. However, as shown in Table 6.1, which compares end-of-course (Questionnaire Two) and post-course (Questionnaire Three) responses, there were substantial gaps between intended use and actual use.

Table 6.1. End-of-Course Intended Tool Use and Post-Course Actual Tool Use (Longitudinal Case Study Participants, n = 20-22)

<table>
<thead>
<tr>
<th>Tool Type</th>
<th>Intended Future English Use (%)</th>
<th>Actual Future English Use (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Video sharing sites</td>
<td>91%</td>
<td>76%</td>
</tr>
<tr>
<td>Social networking sites</td>
<td>91%</td>
<td>68%</td>
</tr>
<tr>
<td>Online dictionaries</td>
<td>86%</td>
<td>64%</td>
</tr>
<tr>
<td>News sites</td>
<td>86%</td>
<td>64%</td>
</tr>
<tr>
<td>English self-study sites</td>
<td>82%</td>
<td>57%</td>
</tr>
<tr>
<td>Search engines</td>
<td>77%</td>
<td>55%</td>
</tr>
<tr>
<td>Translation sites</td>
<td>77%</td>
<td>43%</td>
</tr>
<tr>
<td>Apps</td>
<td>77%</td>
<td>50%</td>
</tr>
<tr>
<td>Whiteboards</td>
<td>64%</td>
<td>38%</td>
</tr>
<tr>
<td>Email/Chat (computer)</td>
<td>64%</td>
<td>24%</td>
</tr>
<tr>
<td>Email/Chat (smartphone)</td>
<td>55%</td>
<td>24%</td>
</tr>
<tr>
<td>Audio call bobs</td>
<td>46%</td>
<td>15%</td>
</tr>
<tr>
<td>Course</td>
<td>41%</td>
<td>5%</td>
</tr>
<tr>
<td>Video call bobs</td>
<td>41%</td>
<td>10%</td>
</tr>
<tr>
<td>Policies</td>
<td>37%</td>
<td>10%</td>
</tr>
<tr>
<td>Blogs</td>
<td>18%</td>
<td></td>
</tr>
</tbody>
</table>

A student-by-student comparison of pre-course English tool use and end-of-course intentions, drawn from Questionnaire One and Two data, shows that all students had listed more tool types for future use than they had used before starting the course. This suggests the course was at least in part responsible for shaping their intentions. However, when data for individual students are considered, it becomes apparent that 82% used fewer types of tools post-course than they indicated they would use. This may be partially explained by Argyris and Schön’s (1974) concepts of espoused theories and theories-in-use, which highlight potential gaps between intentions and actions. They have argued that when people are asked about hypothetical behaviour, they tend to give their espoused theory of action, explaining:

This is the theory of action to which he [or she] gives allegiance, and which,

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23 All items are represented as a percentage of total valid responses, with some drawing on the full 22-student sample, and some figures drawing on a sample of 20 or 21. See Appendix G for raw data.
upon request, he [or she] communicates to others. However, the theory that actually governs his [or her] actions is his [or her] theory-in-use, which may or may not be compatible with his [or her] espoused theory; furthermore, the individual may or may not be aware of the incompatibility of the two theories. (1974, pp. 6-7)

Their work was done with the aim of increasing professional effectiveness and has been drawn on in the language teaching profession to improve teaching quality (Ur, 2013), but it is apparent that it also can be applied to ELLs as a similar gap has been identified in this study. The gap found by collecting data on actual usage after intentions were stated is useful as it reinforces the need to be cautious when examining outcomes. Some studies have reported that students intended to continue using online tools introduced by their teachers after they completed their courses (Mork, 2013; Pinkman, 2005), but both Argyris and Schön’s (1974) theories and this study suggest that this information does not necessarily give a true indication of what is actually going to happen.

It is possible to speculate on reasons that students did not act the way they indicated they would after the writing course. For example, they had just finished the course when they completed the end-of-course questionnaire, and were completing it for a teacher who had worked to help them improve their English skills through online tools. It is not inconceivable that their recent positive experiences and a desire to please their teacher may have affected the number of tools they chose to list, thereby influencing their espoused theory of action. One reason this is suspected is 55% of students listed more types of tools for future use than they had tried in the course, with one listing as many as nine additional types. However, there were clearly additional factors at play. In order to understand the reasons for changes on a deeper level, detailed analysis of the factors that contributed to the experiences of two students with very different post-course outcomes was conducted.

The two students chosen for deeper analysis are Emiri and Hiromi. Significant long-term changes in learning practices could be seen for Emiri, but for Hiromi evidence of sustained change was much less pronounced. An interesting contrast can be seen in the breadth of Emiri’s and Hiromi’s English web-based tool use over time, as Emiri’s tool use continued to expand after the course but Hiromi’s rose during it then declined. Emiri used five types of tools in English before university and seven during the writing course. At the end of the course she planned to use ten types in the following six months, and went on to use 11, with some used very frequently. In contrast, Hiromi had not used any
online tools in English before university but used eight during the writing course. At the end of the course she planned to use six tool types in the following six months but only used three, with each one used very sparingly. It is important to understand what created these differences, and why Hiromi’s intentions were so different from her actual practices after the course, as on the surface these students operated within very similar activity systems in high school, and in the writing course they had the same level of support.

6.3 Loss of Learning Practices Acquired in the Writing Course: Hiromi’s Story

There was strong evidence of autonomous, out-of-class learning and the use of digital technologies for language learning during the writing course but both of these learning practices were largely dropped by some students in the six months that followed, despite indications that they found their learning practices beneficial and planned to continue to use them. Close analysis of Hiromi, one of the students who dropped most of her newly acquired learning practices after the course ended, highlights the role a learner’s community can play in this. In the writing course, Hiromi was encouraged by community members to address her private learning goals and use web-based tools to improve her English skills. Her experiences changed her from a student who had not used any online tools in English and initially expressed a desire not to use them in the writing course, to one who had used eight tool types by the end of the course and intended to continue using six of them. However, her post-course interview shows she only used three of them, and did so very infrequently. The main reasons for this seem to be her lack of community support for out-of-class learning and her lack of motivation to achieve objects that were unrelated to course-assigned tasks.

6.3.1 The Importance of Developing Course-Based Learning Communities

Hiromi did not have a wide language learning community outside of her classes, as she was not in any English clubs and did not regularly use English with anyone outside class, so her classroom community members were the only ones who had a noticeable influence upon her language learning practices. During the writing course, her interactions with her teacher and classmates prompted her to identify and work towards personal objects outside of class, such as to improve her English listening skills, and provided support to help her do this with online tools. Her classmates, through the Facebook Group, influenced her considerably, as this interview comment shows:
I used to think the best way of studying was with paper, by writing, and that it was inconvenient to study with online tools, but my classmates found different ways to study, different online tools, ones that were easy to use. I thought to myself, “Oh, there are some really useful tools available.” So, I changed my way of thinking completely. And then, I thought English apps and other tools were easy to understand.

She reported being influenced by these people because she felt a certain bond, but it was not one that came solely from being in the same physical space. Even though she met her classmates face-to-face each week, the following interview extract shows the Facebook Group was an important tool for helping her to feel like she was part of her classroom community.

Louise: Did [being in our class’s Facebook Group make] you feel you were a member of a community?
Hiromi: Ah yes. Only when we had the homework, everyone wrote the posts, and I read them and commented on them. It was useful.
Louise: What was the good point about being in the community?
Hiromi: If we didn’t have that community, I might not have regarded the students in my class as “classmates”. I don’t think I would have felt like we were a class who had studied together for a year. After we made the [Facebook] Group, I felt like they were my classmates. They commented on my posts, and I don’t know whether I changed because of those comments, but when someone commented I was pleased.
Louise: Did it help you to build relationships, stronger relationships with classmates?
Hiromi: I didn’t know all of their faces, but I felt like we were a class.

Hiromi attempted to widen her community by joining the Emiha Learning Group on Facebook, a group I ran that was open to students campus-wide who wanted to communicate online in English. However, she did not forge any bonds within the group so felt reluctant to act upon members’ suggestions. She rejected their advice because she did not feel the same level of connection she felt with her classmates, noting:

They were strangers for me. If someone from my class recommended something, I didn’t know them so well but [I may have tried it], but I didn’t know [members of the other group] at all, I didn’t feel familiar with them, so I just thought “hmmmm” [when I read their posts].

Although she felt closer to her classmates than the members of that group, she did not see the writing course community as one that would last beyond the course. When asked if she would stay in touch with her closest classmate, Kiyomi, and ask her for help again if
she needed it, she said, “If we take the same class we will probably stay in touch with each other, but the classes will probably change. If so, we probably won’t contact each other so much.” This anticipated change highlights the fact that the community aspect of activity systems can be temporal and in some cases, it may be dependent on institutional decisions and teacher-led actions. Hiromi’s reliance on teacher support to facilitate out-of-class learning opportunities with other members from her learning community is evident in the following interview exchange:

Louise: So if the writing course Facebook Group continued, would you like to keep writing in that group?
Hiromi: If the group continues?
Louise: Yes.
Hiromi: Yes, yes.
Louise: Because I didn’t close the group, but I wondered if students might stop writing now it’s not homework. [Both laugh]. What do you think? If it’s not homework, do you want to continue using that group?
Hiromi: If I were the only student to post in that group, I’d worry what the other students would think about it, but if everyone continues to post, I would like to post too.
Louise: So, can you write about this to the group? If I write it, it is like homework. [Both laugh].
Hiromi: Everyone would write it if it was homework, but if I posted and no one commented, I would feel bad.

This is evidence of Hiromi’s willingness to continue, but also her reluctance to be the nail that sticks out. She did not feel she could continue posting in the group once teacher support was removed as she would be exposing herself to potential loss of face. After the writing course, Hiromi thought her new teachers would help her the most, and did not identify any other community members she would rely on. In her new classes her teachers taught her new skills, such as how to add citations into essays, but they focused on coursework and she did not find a new support network for her out-of-class learning.

When interviewed six months after the course, she said, “When I was told about [new] study methods for homework [in the writing course], I thought, “Oh there is that way to do it, perhaps I’ll try it”. But now no one tells me about that kind of thing.” When asked who had been important in helping her to develop her English skills in the six months after the course, she indicated there was no one:

Hiromi: This year’s not really... others... there aren’t any, I think.
Louise: So nobody is helping you?
Hiromi: Nobody.
Louise: I see. In January, you said this semester you thought your teachers would be important. Were they important in the last six months?

Hiromi: Not much, the teacher... it’s become more “jiyuu”, my freedom has increased and I’m not sure what to do. I should ask, but it’s a hassle. An important role is not being performed [by the teacher].

Louise: And that feeling of being “jiyuu”, like free or independent, do you think that is a good thing or a bad thing for your English skills?

Hiromi: For those who would really like to study I think there is a good side to this freedom. For people like me who tend to wonder what to do, it gets harder to know what to do and [I/we] end up doing nothing.

Louise: What do you think teachers should do to help students?

Hiromi: I want them to teach a little more about different ways to study and find things.

Throughout the interview, Hiromi made repeated references to not feeling like she could be bothered studying and not feeling motivated to do anything that was not homework, but this extract shows that there was a part of her that wanted more teacher guidance. In activity systems terminology, she felt that her teachers’ share of the division of labour was insufficient, and without an external community, she had no one else to lean on.

6.3.2 Understanding How Contradictions and Tensions Affected Outcomes

It is worth considering what would have needed to change for Hiromi’s story to end differently. In the final English Report of the writing course, Hiromi indicated she wanted to continue autonomously using online tools to learn English, listing the following objects for the six months after the writing course:

I want to improve communication skills and listening skill. I think I had better use SNS to improve communication skill. I want to use Facebook and Twitter. Also, I want to use YouTube to improve listening skill. I will listen to foreign music because I like foreign music.

However, in her second year of university, she faced systemic contradictions within her formal learning context. There was minimal integration of online tools into her new language learning environment and her new context followed the historically embedded tradition of focusing to course-related content and positioning support for autonomous, out-of-class learning as beyond the scope of teacher responsibilities.
Figure 6.4 shows three tensions that were identified when Hiromi moved into her second year of studies. First, online tools were not well integrated into her courses and this limited integration of online tools into courses made Hiromi question their necessity to her studies (Tension A). Second, addressing autonomous learning was no longer a classroom rule, and when the rules did not support her initial object of continuing to use online tools to improve her English skills outside of class, Hiromi abandoned it (Tension B). Third, Hiromi needed guidance from her teachers or peers but did not receive it, with the division of labour for managing out-of-class learning falling on her shoulders at a time she was not ready to take control (Tension C). Eventually, her initial object of working on her English skills out-of-class with online tools was abandoned, and she focused solely on her homework, making its completion her primary object. Her classes did not generally require web-based technology, so she reverted back to using mainly paper-based materials. Hiromi explained, “I thought last year was useful because you taught us how to use online tools, but there are no classes like that this year, there are just ordinary high school style classes. I just listen and feel ‘Oh...’ or something like that.”

Figure 6.4. Hiromi’s English learning activity system in the six months after the writing course.

Not only her use of online tools, but also her autonomous learning in general dropped off in second-year when she was no longer asked to report on it. She said, “There was a lot of homework in [the writing course], I think, and this year there isn’t so much, so I’ve kind of stopped studying.” The syllabus and my own experience of teaching the second-
year writing course indicated there was more required homework in the second-year course than the first-year one, but the requirement to share her out-of-class, autonomous learning activities regularly in the first-year writing course made Hiromi feel she was doing extra homework, and that pushed her to make more effort then. When this requirement was removed, she felt she could go back to doing the minimum again. She said, “A lot of tools were introduced in the classes last year and I thought I’d like to try them, but this year it’s not like that so I feel like I don’t have to use them.” With her teachers and classmates no longer introducing web-based tools or reporting on usage, Hiromi lost the motivation to use them.

A number of things Hiromi said indicate that even after a course that tried to encourage autonomous learning, she felt teachers were responsible for assigning learning materials. When asked if she would like to use online tools again if her new teachers prompted her, she replied, “Perhaps I would because it would be easier to use them if they were introduced like that. But that’s not happening, so I feel like I don’t have to do it.” This shows that the experiences Hiromi had in the writing course did not lead to substantial long-term changes in her perception of responsibility for out-of-class learning practices. She placed a large share of the division of labour for instigating out-of-class study in the hands of educators, rather than taking on the responsibility herself. What this means is that while her learning practices changed during the writing course, her view of the division of labour in managing her learning still rested heavily upon her educators. In Blidi’s (2017) terms, she had not moved beyond the stage of the autonomy spectrum that involves reliance on the teacher. She heavily relied on her teachers, and without being prompted by them to do more, she stopped taking advantage of the affordances she knew online tools could offer her. There surely comes a point when responsibility for their own learning must be handed over to students. For Hiromi, steps towards autonomy had been taken in her first year of university, but with many years of teacher-led education behind her and no strong desire to achieve objects beyond her courses, the writing course proved insufficient for her to fully engage long-term in autonomous, our-of-class learning.

Although the tasks Hiromi did online during the writing course were self-chosen, she viewed them as homework, and when there was no requirement to report on what she had been doing, she lost motivation to try. While she stated many times in her final interview that she couldn’t be bothered anymore and no longer felt she had to do extra study, she also showed signs of wanting the support she had during the writing course, stating, “Last
year I had homework about using tools every week, so I thought I had to use them and I was thinking about trying to study English. I don’t have homework like that this year, and feel like my English skills are dropping, so I think last year was better.” Hiromi relied on her teachers, and as it was not the classroom rule to address out-of-class learning in her English classes in her second year of university, she stopped doing it. Students like Hiromi would benefit from extended teacher guidance, which suggests a need for program-level integration of measures that support students’ autonomous study for a longer period of time than was provided in this study.

6.4 Long-term Adoption of New Learning Practices: Emiri’s Story

This section draws on Emiri’s story to give an example of a student who was able to sustain her online learning practices after the writing course and propose reasons for this occurring. Like Hiromi, she did not have on-going institutional support for this, but unlike Hiromi, she had support from communities outside of her classes and had a strong commitment to objects that reached beyond schoolwork. Like all of the students in the study, when Emiri began the writing course she brought influential experiences from her prior English-learning activity systems with her. All activities take place within a historically embedded continuum, with prior experiences impacting upon present and future actions, so there is merit in “considering the previous history of participants as users of technology as well as their beliefs and expectations related to technology use” (Murphy and Rodriguez-Manzanares, 2014, p. 90). Therefore, Emiri’s pre-course, in-course, and post-course activity systems are considered in conjunction in order to understand how and why she became a long-term user of web-based technology for English development.

6.4.1 Understanding the Historical Influence of Emiri’s Activity Systems

The activity system that Emiri operated within as part of her formal English education in high school is depicted in Figure 6.5. Like Hiromi and other students in this study, Emiri’s main learning tools in high school were her English classes, textbooks and worksheets, which were provided in English and Japanese. Although she took Information Technology classes, her use of the Internet and computers at school was generally restricted to those classes, and she was not comprehensively taught how to use them for English language development. She occasionally used a translation site when she did not
understand the meaning of something in her textbook, and mentioned some limited use of YouTube in English, but neither of these were key learning tools. Her community consisted of her English teachers and classmates, with interaction that related to English learning predominately restricted to class hours. The classroom rule was to focus on material that related to university entrance exams over non-exam-related aspects of English acquisition. The division of labour was split into active and passive roles, with Emiri’s teachers supplying her learning materials, and Emiri completing the tasks she was assigned. Her short-term object was to get streamed into the highest-level classes in her school because they were considered the best ones for university entrance exam preparation. Classes were streamed according to students’ grades, so Emiri needed to focus on the materials her teachers assigned to reach this object. Achieving this short-term object was a pathway to her long-term object of entering a high-level university. She reported being in the highest-level classes during some periods in high school, and after graduation she was accepted into one of her preferred universities.

Figure 6.5. Emiri’s English learning activity system in high school.

Emiri said she did not do any self-study during high school, explaining, “when I was [a] high school student I [wasn’t] interested in English so much.”24 While she may not have been particularly interested in studying English outside of class in high school, she did occasionally use it. For example, she used email to keep in touch with a foreign friend.

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24 This raises the question of why she chose to study in Emiha University’s English Department but this was not probed in the interviews. In a task in her first lesson of the writing course she wrote that she chose to major in English because she was interested in American culture and American literature.
and once a month she watched YouTube for entertainment. When asked how she learnt English before starting university, she said, “I studied English only [through] textbooks, so I [didn’t have] any chances to use English with native speakers or any friends, so it [was a] little boring.” In reference to autonomous learning and use of English, she said “there [was] no English time for me [at all].” Combined, these explanations suggest Emiri did not think of her out-of-class activities as English study or even register them as significant enough to report as English use. At this stage, her out-of-class use of web-based tools did not have a central place in her language learning, but her use of them shows that she was prepared to use English online outside of her educational system.

6.4.2 Synergy Between Formal Education and External Activity Systems During the Writing Course

Upon entering university, Emiri’s language learning experiences changed considerably. While the entire extent of her complex learning systems could not be viewed, it can be argued that one reason for the changes related to her new formal English language learning environment. Another was the stronger emergence of new external activity systems, which is a term I use hereafter to refer to activity systems that operate outside of a learner’s formal English studies. Considerable interaction was noted between Emiri’s formal education activity system—analysed through the writing course—and her external activity systems. Figure 6.6 integrates features from both of these systems in to one diagram.

![Diagram showing the synergy between formal education and external activity systems during the writing course](image)

*Figure 6.6. Emiri’s combined formal education/external activity system during the writing course*
As a student in the writing course, Emiri was required to adapt to new rules (self-selected study tasks with web-based technology were expected to be completed outside of class), use new tools (English Reports, a Facebook Group, and a variety of online tools) and take a significant share of the division of labour (identify personal learning objects then plan and carry out learning tasks outside of class). She had to adapt to a new classroom community and communicate with those members about English language learning outside of class time in a Facebook Group. There were also additional changes observed outside of her formal education, in her external activity systems. She joined an English club at her university and her community widened to include other club members and people she met through club activities. For example, it helped her to make friends with students from other universities’ English debate clubs, and put her in contact with foreign tourists that she met while volunteering as a tour guide. She also began actively communicating in English with her boyfriend, a Japanese man whose English skill she both envied and admired, who she said taught her a lot of English expressions and motivated her to study.

During this period, strong evidence of changes in learning practices due to the influence of her community members can be found. When asked why she started studying in new ways after high school, she said the writing course was “a big reason” because “I [didn’t] have ideas to use online tools, but [you] recommended [them to] me so I tried.” She also mentioned learning about tool use from her classmates. For instance, she followed the New York Times on Twitter soon after a classmate recommended it. Sometimes she did not take action until she had seen recommendations from multiple sources. For example, she did not start using a game called Lyrics Training when I initially recommended it to her, explaining, “I thought Lyrics Training [may be] useful for me, but I [didn’t decide] to use it because it is difficult for me to start new thing[s].” In another part of the interview she said she eventually used it because her teacher and friends from the writing class had recommended it, and the first time she used it she was with a friend who showed her what to do. By the end of the course she had been using it for about an hour a week for three months, continuing because it was enjoyable and helped improve her English typing and listening skills.

In the situations above, Emiri’s classroom community seemed responsible for changes in her learning practices, but as she was often influenced by both her formal education and external activity systems, understanding who or what to attribute changes to is a complex
Chapter Six

matter. This can be seen in the following example of Emiri’s use of Facebook, which shows how community members in one activity system affected her actions in another system. Emiri had never used Facebook before it was introduced in the writing course. She set up an account after it was recommended in class, which shows the direct influence of her formal education community. During a lesson, I showed students the Emiha Learning Group and some of them noted down the link but there was not enough time in class to help anyone get set up, so I sent the following information in an email:

In class I introduced a group in Facebook that students at [Emiha University] can use to work on their English skills. This group is private so anything that you write can only be seen by other members. Your Facebook friends cannot see what you write and you do not automatically become Facebook friends with other members. When I introduced it on Monday there were about 20 members I think, but now there are 42. If you would like to join and haven’t yet, please go to your Facebook account and search for "[key words]" (write it at the top in the search area). You will see a group called [group name]. If you click “join”, I will get a request from you and when I click “ok”, you will be a member and have access to the group. If you do not have a Facebook account but would like to join the group, sign up for Facebook first at www.facebook.com then follow the steps above to join the group. If you have trouble joining, please email me or tell me in class. You do not have to join this group but if you do, you will have the opportunity to use English whenever you have free time (like on the train) so I really recommend you try it. I have improved my French and Japanese by using Facebook and hope you can improve your English this way too.

In the next lesson, we discussed the email and the Emiha Learning Group. Emiri decided to use Facebook, but did not understand how to operate it so turned to a friend from outside the writing course for help. That friend had experience using Facebook so helped her to set up the account and post, both of which were initially confusing for her. As her teacher, I had focused on helping her to find links to the group, assuming that joining and posting were basic skills she would have. In Leontyev’s (1978) activity theory terminology (operation, goal, motive), I had wrongly assumed that setting up an account and posting were operations (routine, unconscious components of actions that can be performed without thought) that could be done to achieve a goal (communicating with other language learners and a teacher in a Facebook Group to improve their English skills) that would contribute towards their motive (which I assumed to be increased proficiency). However, it was clear that the assumed operations were not operations after all as Emiri could not easily join or post, so the support I offered was insufficient. Furthermore, the goal was shown to be incorrectly assumed too, as while Emiri joined Facebook, she did
not join the university-wide group during the writing course. Instead, after opening an account, she used it to keep in touch with tourists she had guided around Tokyo as part of her English club activities. She later joined the writing class’s Facebook Group and reported about her experience with Facebook in her first English Report.

[Guiding tourists around Tokyo] was very good for me because I could get the chance to speak with native English speaker[s] or foreign people who speak English. I met many foreign people there. And I decided to [become Facebook friends] to keep [in touch] with them. Thanks to Facebook, I could say to them “Thank you very much”. [In addition] to this, I can talk with foreign people and I can know what they are doing now. I am so happy to know [this] and see pictures that [show] they enjoyed the [rest of their time in] Japan after we finished the guide activity.

Emiri’s first English Report shows that she was able to take a new tool that was introduced through her formal learning community and use it to extend her opportunities to use English with external community members. Her description of receiving help from a community that existed beyond her writing course (her friend) provides evidence of the importance of external activity systems and the complex, interrelated elements that are involved in changing learning practices.

6.4.3 The Increased Importance of an External Community Post-Course

When Emiri finished the writing course, she began the spring break then completed the first semester of her second year of university. She did not seem to feel that she had made substantial use of online tools after the writing course, as when asked if she continued to use them, she responded with, “Not really, but I use YouTube, and [I listen to] English music, [and] yes, I use Facebook, and I contact [the American intern who was at Emiha University] and friend[s] from when I was a junior or high school student, I use English in Facebook [with them].” Given that she readily came up with this list of tools and uses and had reported use of 11 types of tools in Questionnaire Three, the words “not really” seem likely to be tied to frequency and length of use. Later in the interview she confirmed that she did less autonomous English learning online after the writing course than during it, so this may have contributed to that feeling of “not really” using online tools. However, she confirmed that most of her autonomous English learning was done online, and her interview data revealed regular use, such as checking Facebook twice a week and using YouTube daily in quieter periods of the semester and once a week at busy times.
To understand what shaped Emiri’s learning practices after the course, it is important to consider her new activity system. This is depicted in Figure 6.7, with her formal education and external systems combined.

Figure 6.7. Emiri’s English learning activity system in the six months after the writing course

In this period, Emiri was no longer expected to complete English Reports or to periodically share her self-chosen, out-of-class learning practices or objects with her formal education community. Furthermore, the division of labour differed from the previous year as teachers and classmates were not involved in supporting her out-of-class learning pursuits. She received guidance from teachers on matters that related to her courses, but she was responsible for managing learning tasks that addressed her personal objects. Furthermore, she did not regularly communicate with her teachers in English online so their support was generally restricted to class hours.

As for her community, while it looks the same on the surface, there were some salient changes. She remained in the same university, continued participating in the English club, and had the same boyfriend, but her community now included new classmates and teachers, and more foreign tourists and ELLs that she met through club activities. During the writing course, there were four people she used English with online who were not classmates or teachers, but six months later she had approximately 30 English-speaking contacts, 10 of whom were not from Japan. At the end of the writing course she mentioned
the object of wanting to increase her English-speaking connections, and this was achieved through Facebook and Messenger.

In terms of learning tools, she used a range of online and paper-based tools to develop her English skills. In her formal education, she mainly used textbooks and worksheets, but also used some pronunciation software in one of her subjects and accessed course materials from a website her teacher had made in another. Although the range of online tools used in her formal education dropped in her second year, she used many of them outside of class, indicating on Questionnaire Three that she had used 11 tool types in the six months after the writing course. However, she was no longer required to discuss her use of online tools for autonomous learning with classmates or teachers and she used many of the tools with external community members, and without those connections, it is difficult to say if her use of tools such as Facebook would have continued. Therefore, while the writing course opened her up to the use of many new materials, her external community members gave her opportunities to continue using them.

Emiri was also prompted to use tools that did not require a partner for engagement, such as YouTube, by people in her external community. For example, she had an influential experience with a tourist from her guiding activities who spoke English as his L2. She admired his English fluency and after he told her he gained it through listening to music on YouTube, she became more motivated to study in the same way. With less support for out-of-class learning from her formal learning community, these experiences with her external community had become even more important.

6.5 The Importance of Community for Learner Motivation

Emiri’s and Hiromi’s experiences highlight the important role communities have in promoting learner motivation. For Emiri, community members were not only important for the opportunities they provided to use English, they were also important because her tendency to compare herself with others pushed her to try harder. Analysis of her experiences shows a history of her desire to do better than others, first through her object of being in the highest class in high school, and later through her experiences with others in the writing course and in her external community. She said she felt a sense of competitive rivalry with her writing course classmates, explaining, “I wanted to improve my English skill more than my classmate[s] and I [didn’t want] to lose to someone so I
tried”. Her desire to bring her English level above those she perceived as more fluent pushed her to work harder on her skills. This can be seen in one of her English Reports, where she noted, “I watched the English debate that high school students did. It was very cool. At the same time, I envy them because they can speak English very [fluently]. I really want to be them.” Emiri was motivated to improve when she compared herself with others who she perceived as rivals. By using the English Reports and the Facebook Group to make the usually invisible private learning practices of Emiri’s learning community visible to her, the writing course was able to motivate her to try harder. This visibility was not embedded into her courses in the same way in her second year of university, but her involvement in the English club widened her circle of English-speaking contacts, and put her in contact with others who were trying hard to improve their English skills outside of class. This contributed to her remaining motivated to study.

In contrast, Hiromi did not indicate an interest in competing with others. She did self-study because she was prompted to by her teacher, and when these prompts stopped in her second year, so did her efforts. However, the influence of her peers cannot all be dismissed, as the type of self-study she chose to do when pushed to study was influenced by them. The Facebook Group made what her classmates did outside of lessons visible, and reading about their experiences motivated her into action at times. For example, after Shizuka posted about the vocabulary app Mikan, Hiromi wrote, “I did not know Mikan! I think it is very interesting. I want to use it to learn English words, too.” She downloaded it and used it because of Shizuka’s post, explaining, “The post said it was easy to study English vocabulary. I didn’t know about it before that. I checked it, and I felt it was suitable for Japanese people, and it was an app, so I thought it was good.” The Facebook Group allowed her to see how students around her were studying outside of class and she learnt a lot of tools from them, but this became invisible in her second year. This invisibility seems to have had an impact, as shown in the following comment:

I have to write many essays in my [second year] writing course and I need to be able to write in English, so I know I should study, but when I was in my first year I thought “I’m going to do it!” and I was motivated a lot, but from my second year, I thought “everyone is working part-time now, I don’t need to study” and things like that.

She took some of the same classes as other interviewees who reported on their efforts to learn English outside of class, but her perception of everyone turning their attention to part-time jobs suggests that she was unaware of this, and the invisibility of their efforts
and hers may have contributed to her feeling she no longer needed to try. These examples show that, for different reasons, both Emiri and Hiromi were motivated by their community members.

6.6 How Objects Drive Learning Practices

A further important factor influencing the students’ learning practices in the second year was their objects. Some of Emiri’s objects in her second year were attached to concrete things that she hoped to achieve outside of Emiha University, while Hiromi’s were not. Emiri wanted to study abroad so aimed to get a high TOEFL (Test of English as a Foreign Language) score and wanted to pass a higher level of the EIKEN English proficiency exam as it would be useful for her part-time job. She also had skill-based objects, with hopes to improve her academic writing skills and her speaking skills, the latter of which was tied to her desire to be a stronger debater and communicator. In contrast, Hiromi’s objects centred around her schoolwork. When asked about the objects she had in the six months after the writing course, Hiromi said, “Goals? What were my goals? To start off with, I wanted to hand in my homework. I guess that’s about it.” She didn’t think about objects beyond homework, make plans to achieve them, or try to check her progress, explaining, “I think just doing homework is enough. I don’t think about it very much.” When pushed for future objects, she took some time to consider them, then responded with, “I think I’d like to increase my vocabulary, to be able to write essays, and also to improve my listening skill.” In Leontyev’s (1978) operation-goal-motive model, she seemed to be focusing on the lower-order operations or goals, without identifying a higher-end motive. To draw on Dörnyei’s (2005, 2009) future selves model, it was apparent that her vision of her ideal future self was much less clear to her than Emiri’s was and this may have also have impacted upon her motivation to reach for English beyond her coursework.

Despite the different outcomes, with Emiri more successfully maintaining her autonomous learning practices than Hiromi, both of them felt that it was better to have teacher involvement in guiding students towards out-of-class learning. When asked whether she had regularly thought about her objects in the six months after the writing course, Emiri said she had not periodically determined what they were or thought about them, and she expressed a desire to return to the teacher-led support system offered through the English Reports she did in her first-year writing course. When asked how she
would feel about the inclusion of the kinds of activities she did in the writing course in second-year classes, she responded, “I think [it is] necessary, because we have to look back [at] our activity or study, so then we can improve our skills.” She continued by explaining why she felt teachers were needed: “Teachers’ help is good for students because students [are] not sure that [their] reflection is good for improving their English skills but teachers know how to improve and what is effective so it is useful, [it’s] good for student[s].” When Hiromi was asked if she felt her second-year courses should have the same kind of guidance she received for out-of-class in the writing course, she said:

When I start to study, I think I don’t want to do it if it is hard, but thinking back on it, I guess it is better to study like that because I’ll be able to study English. When I’m deciding [what to do] I feel like I can’t be bothered.

When questioned on whether teachers should encourage students more to study outside of class, she was somewhat open to it, explaining, “I don’t want to be pushed hard to study, but I sometimes think I’d like to be taught good ways to study.” Despite showing resistance to being pushed hard, in looking back on the requirement to do English Reports, she noted, “Last year I felt it was tough, but now I think last year was probably better.” Together, Hiromi’s and Emiri’s responses suggest that there is more room for long-term teacher support in the development of out-of-class learning practices.

6.7 Chapter Conclusion

This chapter has shown some evidence of long-term changes to learning practices after the writing course, with many students continuing to make use of a range of web-based digital technologies for English language learning. However, it has also highlighted the need for longer periods of teacher support than were provided in the writing course, particularly for students who do not have strong support from external communities, so indicates a potential need for institutions, rather than individual teachers, to consider integrating such support into degrees. The next chapter returns to the concept of learner motivation, further examining factors that encouraged or deterred students’ use of online tools for language learning purposes.
Chapter Seven: Understanding the Complexities of Motivation to Use Digital Technology for English Development

7.1 Introduction

In the previous three chapters, activity systems were used to try to understand and explain the activity of learning English at different stages in students’ English education, with a focus on their use of online tools. This was presented from the perspectives of groups and individuals, both within students’ formal learning contexts and outside of them, and factors that motivated and deterred engagement with digital tools were examined as part of the overall analysis through activity systems.

In an early version of activity theory, Leontyev (1978) proposed that it is possible for activity to lose the motive it was evoked by, turning it into a different activity, or that action may be triggered by independent motivating forces. This suggests that there may be other influences on activity than the original motive itself, and that motivating factors that are not always obviously connected to learning English can play a role in motivating learners to use digital technology in ways that could improve their English language skills. Therefore, this chapter draws on quantitative and qualitative data to examine motivation from other perspectives to further understand students’ motivation to use digital technology for L2 learning purposes.

This chapter starts by presenting questionnaire data on factors that ELLs identified as motivating them to use online tools, and further explores this through key themes that arose from open and thematic coding of interview data. After that, the opposite side of the coin is examined by looking at key deterring factors. Finally, due to the strong position that community has in activity system analysis (Engeström 1987, 1999) and social constructivism, pivotal roles community members from the writing course played in positively influencing students’ perceptions of online tools and their use of them for English language learning are presented.
7.2 Motivation to Use Online Tools for L2 Improvement and Broader Purposes

Many students in this study reported being motivated to use online tools in English to enhance their English skills, but data showed that improving their L2 was not the only motivating factor. Initial evidence of this was found at the beginning of the study. On the first day of data collection, 128 students in the English Department were surveyed about whether or not a number of factors motivated them to use online tools in English (Questionnaire One, first-year English Department students). The results are shown in Figure 7.1 below.

![Figure 7.1. Factors that motivate students to use online tools in English: Collected first week of university (first-year English Department students, n = 120-123^25).](image)

The most commonly selected factor was a desire to enjoy doing hobbies (84%). This was chosen over English acquisition goals such as improving oral communication skills (82%), learning new vocabulary (81%), and school-based goals such as doing well on tests (53%). While these figures show high motivation levels for most of the factors researched, it should be noted that it is unclear how many of the responses were linked to students’ motivation to actually use online tools in English, and how many were linked to their feelings about what would motivate them to do so, as some students who had never used English online indicated that some of the factors motivated them. This ambiguity was removed in Questionnaire Two, as all of the longitudinal case study participants who completed it had used a range of online tools during the writing course. As shown in Figure 7.2, hobby enjoyment remained a key motivator at 96%, and skill-based goals such as improving oral communication skills (96%), learning new vocabulary (82%), and improving their grammar (82%) also remained high.

^25 Response rates vary as some participants skipped some items. Figures listed are percentages of valid answers. See Appendix G for raw data.
Chapter Seven

Figure 7.2. Factors that motivated students to use online tools in English during the writing course (longitudinal case study participants, n = 22).

Other factors that did not seem directly related to language development, such as accessing new information (68%), were also reported as motivating, but interviews showed how these factors were often intertwined with language acquisition goals. For example, during her first interview, Shizuka explained why she was motivated to look for new information in English:

> Recently, I have researched an English novel because my major is English literature. The book has a Japanese Wikipedia site but always [the] English version is very... [it has] a lot of information. And, I think it is useful and helpful for studying English so I want to look at English homepage[s].

Her response shows her willingness to access information that is unavailable in her L1 while simultaneously improving her English skills. This desire to “kill two birds with one stone” was evident in other areas too. Fifty percent of students indicated that keeping in touch with foreign people motivated them to use the Internet in English and a further 35% were motivated to use it to make new friends. As Emiri explained though, this too was intertwined with motivation to improve English skills:

> Louise: What kind of thing motivates you to write [in English on Facebook]?
> Emiri: To communicate with English speaker[s], I have to use English, [and] I want to [do that] so I have to write [in] English.
> Louise: So for example, you check Facebook two times a week, and you read it, but most of the time you don’t feel like replying, or you don’t actually write anything, but then, one day, suddenly [you think], “Oh, today I will reply” or “Today I will write”. What makes that happen?
Emiri: The information on the post is related me, or if the person who posted needed something, information or support or help, and if I could give help, then I reply or give information.

Louise: So when you’re motivated to write, it’s not your motivation to improve your English, it’s motivation to actually do something social. Is that right?

Emiri: Yes, but mak[ing] the connection on Facebook […] I want to improve my English skill, so I’m trying to make a connection with English speakers.

With the writing course’s focus on using web-based technology in English outside of class, class-based social relationships also became an important motivating factor. This can be seen through three sets of statistics from Figure 7.2. First, almost three quarters of the students (73%) were motivated to use online tools when they were advised to do so by a teacher. Throughout the course, I made many recommendations to students through the class’s Facebook Group. This figure suggests my advice had an impact, and interview data confirm it. The Facebook Group also played a large role in fostering peer-to-peer recommendations, and this contributed to 64% of students choosing classmates’ recommendations as a motivating factor and over half (55%) of the them indicating that communicating with teachers/classmates was motivating.

The impact of the writing course on these three factors can be seen more clearly through a start-of-course, end-of-course and post-course comparison of students’ motivation to use online tools that were recommended by their teachers and classmates, and to communicate with them. Figure 7.3 shows the same pattern for each of these factors, with lower motivation before and after the writing course.

![Figure 7.3](image)

*Figure 7.3. Pre-course, end-of-course and post-course comparison of social factors that motivated students to use online tools in English (longitudinal case study participants, n = 21-22*).

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26 All items are represented as a percentage of total valid responses, with most drawing on the full 22-student sample, and one figure drawing on a sample of 21. See Appendix G for raw data.
It is worth remembering here that many students had not used tools in English before the course so for those students, their pre-course answers were based on what would hypothetically motivate them. By the end of the course they had received many recommendations from their class-based community members and had many opportunities to interact with them online, so figures from this period and the post-course period are thought to be more likely to represent motivation for actual use. After the course, there was a dramatic drop in students’ motivation to use tools recommended by their teachers (73% end-of-course, 36% post-course) and classmates (from 64% end-of-course, 24% post-course), and there was also a large drop in their motivation to communicate with their teachers and classmates in English online (55% end-of-course, 18% post-course). Interview data suggests students were given little support for the use of online tools from their new class-based communities after the writing course, which suggests that students were more motivated by these factors when institutional support was provided.

While the questionnaire data above provide valuable insight into factors that motivated learners, they only consider areas that were pre-selected by the researcher. During the eleven interviews (six at the end of the writing course, five six months later), students provided a substantial amount of additional information on what motivated them. All interviewees spoke of their desire to acquire new English language skills, but open coding of interview data revealed four salient motivating factors beyond language acquisition: their quest for enjoyment and interest, being able to use tools when and where it suited them, a desire for tools that were easy to use, and learners’ perceptions that the Internet gave them a window into English and the English-speaking world.

7.2.1 Enjoyment and Interest

Interview data revealed that enjoyment and interest, which relate to intrinsic motivation (Pintrich & Schunk, 1996; R. M. Ryan, 2018), had a central role in igniting and maintaining learner motivation. McLoughlin and Mynard (2015) noted that there is a difference between interest and enjoyment but conceded that it was too difficult to distinguish the terms from each other when coding their qualitative data because participants tended to use the terms interchangeably or describe the same episode with both terms. The same issue arose when coding interview data in this study, so the terms have been grouped together here.
The concept of enjoyment was mentioned repeatedly in interviews, with students using online tools that were fun or interesting, and rejecting tools that they found boring. For example, Kiyomi said she continued using Facebook after the writing course because “I enjoy reading posts from others, and I can also improve my English reading skill.” When asked if she thought she would still be using Facebook in a year or two, and later when she graduated, she said she could enjoy reading posts so it seemed possible to continue. In contrast, she had reduced the time that she spent using an audio tool called Speed Learning because she “lost interest in it.” At first, she felt motivated because Speed Learning “is done in a series of stories, so I can keep on doing it because I’d like to hear the next part of the story.” However, she gradually became bored and sought a more active learning style, replacing the time she spent on Speed Learning with time using new pronunciation software. This software required her to be more active as she needed to listen, speak, read and write instead of just listening. She came to view Speed Learning as a tool that fostered passive learning, and was more excited about the pronunciation software because of some of its game-like features, explaining, “the score for my pronunciation is displayed, so I feel I need to try harder and [because of the score system] I can continue to use it.”

Sometimes using online tools was so enjoyable that students even felt they were not studying. There was evidence of this in Chika’s use of Umano, a news app that she liked because she could “enjoy many good article[s] in English.” She said:

Chika: Basically I like this app and I just listen to [it] for fun, not for study, but it [leads] me to study.
Louise: Why is it fun?
Chika: I can enjoy foreign people’s debate[s] from this app, news, and so many kinds of entertainment.

If enjoyment and interest are important for motivation, and there is certainly support for this notion (Ebrahimzadeh & Alavi, 2016; R. M. Ryan, 2018; Wu, Yen & Marek, 2011), then it is useful to understand how it was enhanced. One influential factor related to features of the tools. For example, Shizuka thought the vocabulary app Mikan was fun because “when I keep trying, the application says, for example, “500 words complete” and there are very great message[s] so there is [an] incentive [to use it]”. Another attractive point was the multimodal nature of online tools, as Kiyomi explained:
Kiyomi: I can continue studying with online tools for longer than textbooks because I don’t lose interest in online tools.

Louise: Why do you think you can continue studying with online tools more than with textbooks?

Kiyomi: When I buy textbooks I always get tired of them part way through and I have never finished one. I think I can continue using online tools because it is fun to study.

Louise: Why do you think online tools are more fun than textbooks?

Kiyomi: I can study by playing games and watching video clips and things like that.

For others, the fact that online tools did not feel like study tools made using them interesting. Hiromi shared this sentiment, explaining, “With paper I felt like it was study, but with things like YouTube it was fun, so I think it might be better.” For her, studying had meant using a textbook, but online tools opened up more entertaining way to work on her English skills.

If students did not enjoy using tools, they tended to reject them. For example, Shizuka favoured a video news app over a radio one because she felt it was boring to just listen, and she lost interest in blogs because she lost interest in reading about ordinary people’s private lives. Furthermore, when students overused tools, this could affect their interest level and subsequent use. For example, at first Rei was engrossed with the game Lyrics Training, explaining, “It’s so interesting. Thanks to Lyrics Training I can know so many English songs and enjoy typing English songs and by typing the English songs I can learn so many English songs by heart and now I can sing some English songs in karaoke.” However, when her enjoyment waned, so did her motivation to use it:

Rei: I used to [play] Lyrics Training every day, too many [times], and so now I feel a little bored to do that […] Of course, it’s [still] interesting now, [but] I [use it] twice a week now, not every day.

Louise: Ok, so you think that if you reduce the amount of times that you use it that you can keep your interest?

Rei: Yes, yes.

Louise: But if you use it too much you might get bored with it?

Rei: Yes.

The focus on enjoyment and interest in interviews aligns with questionnaire data that showed doing hobbies was a motivating factor for online tool use in English. It also validates the emphasis on enjoyment from researchers such as Mynard and McLoughlin (2014) who reported on a self-access centre program that employed a SURE+E (Study Use Review Evaluate + Enjoy) model, with the “enjoy” part included to stimulate learner
motivation. In McLoughlin and Mynard’s (2015) more recent work, they found that interesting/enjoyable experiences worked in conjunction with goals to help learners maintain motivation. Their work, and the findings in this study, highlight the fact that interest and enjoyment are important for researchers and teachers to consider.

### 7.2.2 Accessibility Across Time and Place

The “anywhere, anytime” accessibility of digital technology also made online tools appealing to learners, echoing earlier work that highlights the benefits of learners having greater control over where and when they learn (Looi, 2014; Pegrum, 2014; Reinders & Hubbard, 2013; Soong, 2012). For some students, this was related to the amount of time they spent commuting. In Japan, it is common for students to spend two or three hours a day commuting between their home and university, and often the trains in Tokyo are too crowded for them to be able to sit down. For example, Chika, who spent about three hours on trains on school days, said, “I took a train for long time every day to come to [Emiha University] so it is [a] good opportunity to take, to study on the train [by] using online tools.” Sometimes, after students realised the value of this, they looked back at their previous use of travel time with regret. For example, Kiyomi, who spent two hours on trains each day, said, “I wasted my time [in the past]. I didn’t use my travel time because I didn’t think it was a waste of time not to use it. But then I thought it was valuable to study with online tools [when on public transport], so now I do that.” She was very keen to improve her listening skills and the accessibility of listening materials through her smartphone at a time when she had nothing else to do allowed her to simultaneously pass the time and improve her English. In both of these examples, the students used web-based tools with the goal of improving their English, but were further motivated to do so because of the accessibility they had to those tools at a time and place that suited them.

In contrast, when accessibility to tools was limited, students were more reluctant to use them. For example, the game Lyrics Training, which can be used to listen to English music and learn lyrics, was not well-suited to smartphones at the time of the study. When Kiyomi first discovered it, she played it up to two hours a day, buoyed by the novelty of something fun and new. However, she saw its incompatibility with smartphones as its main downfall. She said she stopped using it during her first year of university because “I don’t have enough time, and I can do it only at home because it is best suited to a computer.” She did not have her own computer and had to ask her parents whenever she
wanted to use their one at home. While the novelty of a new game spurred her at first, the inaccessibility from a smartphone deterred her from using it long-term. Furthermore, Shizuka was deterred by the limited access that she had to tools that were provided in the university’s computer rooms. She said that using the tools was difficult because her schedule did not align well with the schedule for computer rooms due to other commitments, such as her part-time job, and that she could only access the tools at inconvenient times, such as during her lunch break.

Time considerations were not only important in terms of when students were motivated to use online tools, but also in terms of how long, as there was evidence of motivation being derived from tools that could be used for short periods of time. Shizuka chose to continue reading Facebook posts because “It doesn’t take [much] time” but did not write posts due to the time it would take, as explained below:

Louise: And what stops you from [posting on Facebook]?
Shizuka: I don’t have [any] interesting topic[s] and maybe it’s very [time-consuming] to post, but I don’t have time.
Louise: I see, but you have time to use the NHK site and time to use Mikan, so what makes you choose them instead?
Shizuka: It [takes] a very short time [to use them]. For example, Mikan, I can use it in one minute or two minutes, but writing long [posts] takes maybe one hour to finish [with] correct sentence[s].

The time that tasks take was a deterring factor even when tools were believed to be valuable learning tools, as this interview extract about Facebook shows:

Louise: Can you tell me about your experience in [the Emiha Learning Group]?
Rei: I can understand it’s so useful to improve my English skills but it’s so difficult to read all [posts]. Too many posts [are] uploaded so I can’t check them and gradually I didn’t use it. Yes, there were so many posts, so I couldn’t be bothered using it.
Louise: Do you think some of the posts were too long?
Rei: Not too long, too many. […] For improving our English skill maybe I think we have to upload [posts] once a week, but [if] every [member] upload[ed] once a week, [there would be] so many. So, I couldn’t be bothered reading them. I really just couldn’t be bothered reading all of them, and replying to them. […] When it became bothersome to read them, that made it bothersome to write too. Then, I avoided using the group.
This indicates that even when students find tools beneficial, they may resist them if they begin to feel overloaded, echoing findings by C.-Y. Chen, Pedersen and Murphy (2012) on the detrimental effect of information overload when interacting online.

### 7.2.3 Ease of Use

According to the Technology Acceptance Model (TAM) (Davis, 1986; Davis et al., 1989), ease of use makes tools more likely to be accepted by users, and interview data support this. The TAM was first used over two decades ago, when technology was much less developed, but it is still relevant today. Davis (1986) created the groundwork for the model when seeking to explain why some people were more accepting of technology than others. The TAM posited that perceived usefulness and perceived ease of use are key constructs that influence people’s attitude toward using technology in the workplace, largely determining the degree to which they accept it. Later, Davis collaborated with Bagozzi and Warshaw to test this theory with MBA students in relation to acceptance of a word processing tool. Their results indicated that:

1. People’s computer use can be predicted reasonably well from their intentions.
2. Perceived usefulness is a major determinant of people’s intentions to use computers.
3. Perceived ease of use is a significant secondary determinant of people’s intentions to use computers.

(Davis et al., 1989, p. 997)

While technology has advanced considerably due to the development of new devices such as smartphones and the creation of Web 2.0, the TAM has the potential to explain acceptance of more recent digital technologies in educational contexts. Numerous recent studies support the finding that perceived usefulness and perceived ease of use are key constructs that influence people’s intentions to use technology, largely determining the degree to which they accept it (Buche, Davis, & Vician, 2012; Shroff, Deneen, & Ng, 2011; Wiid, Cant, & Nell, 2013).

In this study, words such as “easy”, “easier”, and “easily”, appeared frequently when discussing preferred tools, and often appeared alongside references to effective use of time and enjoyment. For example, Shizuka said if online tools are easy to use, “I can use [them] easily and maybe [it] doesn’t take [much] time so I can use [them] many times. It is good.” Knowing that something is easy to use can motivate students to try it, with Hiromi noting that she used the vocabulary app Mikan after Shizuka recommended it on
Facebook and “the post said it was easy to study English vocabulary.” One reason it was easy to use was the Japanese interface. At Emiha University there was a requirement for teachers of English-medium courses, including the writing course, to maintain an English-only environment in class, despite recognition of the benefits of accepting bilingualism (Major, 2018; Nukuto, 2017; Rebuck, 2005). However, by facilitating peer-to-peer sharing, opportunities for learning about resources that would allow learners to draw on their L1 opened up, increasing ease to use and thereby making learning tools more accessible. Shizuka had previously tried and rejected a vocabulary app that had an English interface as she found it confusing to operate and if she had faced the same problem with Mikan and complained about the difficulty rather than praising it, it is doubtful that Hiromi would have attempted to use it. This notion was validated by Kiyomi who said if she found a tool difficult to use she would stop using it as there are easier options available.

The value learners place on ease of use cannot be overstated, as some even prioritised it over the perceived benefit of a tool, as evidenced in the exchange below:

Louise: If there were two tools, one was a little difficult, one was a little easy, which would you choose?
Kiyomi: First I’d use the easy one, and when I got used to it I would use the difficult one to challenge myself.
Louise: If one tool was easy to use, but didn’t really help with your goals so much, and one was more difficult to use, but more helpful for your goals, which would you use?
Kiyomi: I would use the easy one.
Louise: Why?
Kiyomi: Because I would get sick of it if I used the difficult one first. So, I would begin to use the easy one, and gradually shift to the difficult one.

In the exchange above, Kiyomi may have been referring to possible difficulties related to the operation of tools but it is also likely she was referring to language level, which adds to students’ perceptions of a tool’s difficulty level. For instance, Rei used Twitter in Japanese long-term with her friends but rejected it as an English learning tool after choosing to follow a news site that required advanced level English skills to understand. She said, “Twitter didn’t help my study because I followed New York Times but it’s a little difficult for me to read.” Instead of looking for other options on Twitter, she rejected Twitter as an English study tool. Tools were sometimes given only a small window of opportunity to attract students, and if they were thought to be difficult they were likely to
be rejected. Shizuka noted, “Last year I installed some application[s]. Some of [them were] difficult application[s] to use but after I [thought] “This is [a] difficult application” I didn’t use it. […] Now I don’t use difficult application[s].”

Students were sometimes willing to try resources that had a difficult level of English if they offered clear benefits, as this extract from Kiyomi’s first interview shows:

Louise: Is there anything else that you tried after reading a comment from a student?
Kiyomi: Reading BBC articles.
Louise: So what did that student say about the BBC that made you think, “I want to try too”?
Kiyomi: She wrote that it was difficult, that the English level was difficult, but it was good to learn about the world as well as to study English.

However, by the second interview Kiyomi was no longer using new sites, replacing them with other tools that she was more comfortable using. Chika may have summed up the reason for this best when she said, “I think [the] important thing is to find [tools that are] easy to use, cause if not, we can’t continue using [them]”. The examples above suggest that once students find it difficult to understand how to use a tool or find the English level of the tool too high, they can be deterred from using it. This aligns with the key tenets of the TAM model and highlights a role for teachers in either directing students towards tools that they can easily use or helping to build the skills they need that would make tools easier for them to operate. In sociocultural terms, this means there is a need to help students find tools that they can readily use alone or to direct them to those that fit within their ZPD and offer scaffolding at the operational level, either directly or by facilitating peer-to-peer learning opportunities.

If students find a tool difficult to use it does not mean that they will not keep trying, but it does pose an extra obstacle so strong additional motivating factors may be needed to push students to persevere. For example, after unsuccessfully trying to improve her English skills through the New York Times, Rei reflected on her goals and expressed interest in trying news sites again because she felt it could help her to achieve her vocabulary goals. She said, “I want to try it because [the BBC news site] is difficult to read but my next target to study is to learn more academic words and sentences. During this year, I learned easy English words and sentence[s] as [a] communication tool, but next year I think I have to learn more difficult and academic words and sentence[s], so I
will begin to use it for that target.” This showed she felt her investment in the tool was worth the effort it took to use it. However, whether or not Rei went on to use this tool after the writing course is not known as she didn’t participate in data collection in the follow-up period.

A final point to note is that online tools were in some ways perceived as easier to use than paper-based ones because their format was more appealing to students. Explored from this angle, ease of use is not connected to operating the tools or the English level required to use them, it is about overcoming psychological barriers and finding it mentally easier to pick up a tool and start using it. Although books are not physically hard to open, it seems that some students found them more difficult to feel motivated to open than online tools. For example, Shizuka said, “For me, when I am tired it is a little difficult or hard for me to open [a] textbook, but [I can use] almost all online tools with my cell phone so it is very easy. I can use this.” She believed it was possible because it was quick and convenient, just taking “one touch” to access materials. This was echoed by Hiromi, who said, “I felt like I could start a little more easily with a computer than with paper materials, so it gave me opportunities to study. Studying online is easy, so I thought I would try to study.” Furthermore, Emiri said, “YouTube is more interesting than reading books so it is [an] easier way than reading books.” These examples show that the online format made it easier for students to begin engaging with these learning tools.

### 7.2.4 A Window into English and the English-Speaking World

The ELLs in this study were generally situated within monolingual settings when operating outside of their formal educational context, so some saw digital technology as a window into English and the English-speaking world. When asked about advice she would give future students at Emiha University, Chika said, “Of course, we studied English in high school but it’s not enough to communicate with foreigners so you should connect with many people all over the world by using [online tools] and you should learn a lot of things from them.” In this statement, she is signalling her vision of English as a tool that can connect ELLs in Japan with the international community and highlighting the opportunities online tools offer in making such connections. During the writing course, she used the app TuneIn Radio to “enjoy foreign people’s debate[s]” and listen to radio and news programs from all over the globe. She said it gave her access to “not only music but also news and old drama[s], so I could have many opportunit[ies] to touch English.”
This notion of “touching” English is often used by Japanese ELLs to express a feeling of having access to or contact with the language or its speakers. Chika’s motivation to listen to foreign debates and news programs from around the world aligns with what Yashima (2002) has called international posture. Her definition of this concept includes “interest in foreign or international affairs, willingness to go overseas to stay or work, readiness to interact with intercultural partners, and, one hopes, openness or a non-ethnographic attitude toward different cultures, among others” (Yashima, 2002, p. 57). Chika provided further evidence of the motivating influence of her international posture through her use of social media to “connect with foreigners and my Japanese friend[s] who want to improve English skills.”

Emiri also showed evidence of international posture and chose tools that would assist her to reach the international English-speaking world. In particular, she felt Facebook was useful for this, positioning it as a tool that gave her access to non-Japanese English-speakers. She said, “if my friend is Japanese, I will use LINE or Twitter, but if my friend [doesn’t] use Japanese, I will surely use Facebook.” She perceived Facebook as a gateway to the wider world, explaining, “I think Facebook is the most worldwide online tool, and everyone has the account.” She felt motivated to use it because of her desire to improve her English skill and talk with English speakers, describing Facebook as “a precious place for using English because I have no chance except Facebook or [other] online tool[s] so it is important for me.” Emiri actively sought opportunities so interact with others, making connections with people who could help her to improve her English language skills. She attributed a lot of weight to the role of digital technology in facilitating her interaction with others, saying, “I think without online tools, I [would] not [have] so much chances to communicate [with] English [speaking] people.”

The examples from Chika and Emiri above show they were seeking opportunities to virtually embed themselves within English-language discourses through engaging with international communities. Hiromi attempted to give herself access to an English-language environment more locally by joining the Emiha Learning Group on Facebook, noting, “There are not many opportunities to come into contact with English in my daily life, but everyone posts in English in [the Emiha Learning Group], so I feel like I have a chance to have contact with English.” This desire for contact with English was reflected in Kiyomi’s decision to join the group too, as she did it because “I didn’t have any opportunities to read English sentences, so I thought it might be good for me to read
Chapter Seven

others’ posts.” While these are but a few illustrative examples, Hiromi’s and Kiyomi’s willingness to engage with the Emiha Learning Group and Chika’s and Emiri’s willingness to engage with the tools listed above show that learners were motivated to use digital technologies when they viewed them as a window into English and/or the English-speaking world.

7.3 Factors that Turned Students Away from Digital Technology

As shown in Chapter Four, most of the 128 students that took part in Questionnaire One had never used online tools in English or had quite limited experience with them. Questionnaire One sought to determine some of the factors that deterred these students. As Figure 7.4 shows, the main issues were privacy concerns (49%) and reluctance to put personal information online (48%). In addition, 39% did not feel confident using online tools, 39% did not have English speakers to use them with, and 26% did not know how to use them.

![Figure 7.4. Factors that deter students from using online tools in English: Collected first week of university (first-year English Department students, n = 118-122).]

As with the section on motivating factors above, these quantitative data are useful but only show factors that were preconceived by the researcher, so interview data were also used to identify factors that deterred students from using online tools in English. Some themes that arose through coding have been covered within the section on motivation above, such as ease of use increasing motivation and difficulty in use decreasing it. Analysis of interview data revealed considerable evidence in two areas that warrant further attention: concerns over privacy and personal information, and shyness and

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27 Response rates vary as some participants skipped some items. Figures listed are percentages of valid answers. See Appendix G for raw data.
anxiety. These issues have already been examined to some extent in other sections, but this section expands on them in order to provide a deeper understanding of these issues.

7.3.1 Concerns over Privacy and Personal Information

As highlighted in Figure 7.4 in the previous section and earlier in Chapter Five, concerns over privacy and personal information were substantial in deterring students from using online tools. This is not all together surprising given that Japan is a country in which decorative stamps are often used to hide people’s faces when photographs are posted online, and is the home of Mixi, once Japan’s most popular form of social media (Singh, 2011), which resembles Facebook but tends towards pseudonyms and non-identifying profile pictures. Once students knew how to protect their privacy, there was evidence that willingness to use tools increased. For example, Kiyomi had initially worried about her personal information being online but when she discovered that she could use tools while still protecting her privacy her fears were alleviated. As students learnt how to control their privacy settings and protect their personal information, their hesitancy dissipated to some extent, but was sometimes still a deterrent.

Making sure students know about the privacy measures available to them and taking steps to protect their privacy when directing them towards online tools is very important. Some students recognised this, as shown in this exchange about sharing English Reports in the class Facebook Group:

Louise: How did you feel about uploading that task and sharing it with other students and me?
Rei: At first, I hesitated to upload because I [had] to show what I did on Internet. If I uploaded something I can’t erase that completely so I hesitated a little.
Louise: So you were worried about security?
Rei: Yes
Louise: And privacy?
Rei: Yes.
Louise: So did you feel that making it a private group helped, or not?
Rei: [Making it a] private group helped so much. [...]. Only students can see that, but if that group was shown to everyone I couldn’t upload.

While Rei showed a high level of concern about sharing information online in the exchange above, it did not prevent her from using a wide range of online tools in English. However, as noted in Chapter Five, she faced a problem with privacy with a male user...
she met on the language exchange website Lang-8 and this led her to abandon her account. Eventually, she decided to try using Lang-8 again under a new account, but her negative experience had damaged her view of it, as the following exchange shows

Louise: Has the new account become useful for you for your English studies?
Rei: Now I have that bad image about Lang-8 because of him so I don’t feel like using it so frequently, so… not very often.

Rei learnt a valuable lesson, but her experiences with it tarnished her image of Lang-8 almost beyond repair. In contrast, other students found that their experiences with tools reduced their privacy concerns and encouraged them to use them more. In her first English Report, Emiri wrote enthusiastically about Facebook offering her the opportunity to keep in touch with foreign tourists she had guided around Tokyo. However, she also showed concern, noting:

I think there is problem [with] privacy [with Facebook] because almost all people [have] signed up with their real name and they [share] information such as [their] address or age or university’s name. I think this [is sometimes] dangerous. So I think we must be careful [about using] SNS[s] like Facebook.

Later in the course, her feelings about this had changed, as can be seen in the following interview exchange:

Emiri: Before I used Facebook or any other online tool, I [had the] image that online tool[s] [posed] a little risk [when] communicat[ing] with people because they are [used by] so many people, so [there is] the [danger] of fraud or…
Louise: So you worried that you might be tricked?
Emiri: Yes.
Louise: Online by somebody? And now?
Emiri: Now, I’ve founded that there [is] no [danger], almost, and it is very fun to communicate with [people who live] far, far away. And, for example, I met [a] French person in July last year and I can’t meet [that person] now, but I can communicate on Facebook [with him/her], so it is good way to [communicate].

The second extract indicates a little naivety in assuming there is almost no danger, but given Emiri’s recognition of the kinds of information she wanted to keep private, it is possible that she was careful about the information she uploaded so had recognised that it is not the tools themselves that create danger, but how they are used.
As concerns were often due to a lack of knowledge about how to use tools safely, an important role for teachers can be seen here. Helping students to understand how to protect their privacy reduced the security fears initially expressed by Emiri and later by Rei, and shared by many of their classmates. However, there was another matter that could not be overcome: a dislike for the feeling of being watched through some tools. Hiromi felt “uncomfortable because [Facebook] has the “read” notification like LINE” and said, “I prefer Twitter because there is not that kind of function.” She did not want others knowing when she had seen a post. Emiri expressed this in a slightly different way, explaining that she liked using Messenger because others cannot see conversations like they can on Facebook.

Emiri: Messenger is also funny for me because if we are not, I and someone, not so [close], we can talk on Messenger, but everyone can’t see our conversation, so it is good.
Louise: Because people can’t see?
Emiri: Yeah.
Louise: [And] it is private?
Emiri: Yes.

What this suggests is that while students are interested in using tools to improve their English skills, they are sometimes uncomfortable with tools or functions that expose their actions to others and that they want to engage in more private conversations with others and not have their actions monitored.

7.3.2 Inhibition Due to Shyness and Anxiety in Interactive Environments

Some students in this study were deterred from using tools that involved interacting with others due to their shyness and anxiety in social situations. Shyness has been defined as “excessive self-focus characterized by negative self-evaluation that creates discomfort or inhibition in social situations” (Henderson, Zimbardo & Carducci, 2001, p. 1522) that can lead to avoidance strategies, with some shy people thinking “I can’t do it because I am shy” (Henderson et al., 2001, p. 1522). In Japan, many students are described as shy or self-identify in this way (Cutrone, 2009; Doyon, 2000; Henderson et al, 2001; Shiozawa & Donnery, 2017) but while it can prevent them from fully participating in social interactions, in Japanese culture, “shyness is not seen in a negative light” (Shiozawa & Donnery, 2017, p. 16). From a personal perspective, after living in Japan
for over 15 years, I do not see shyness in a negative way, but I accept that some activities are more likely to be embraced by students who are not shy than those who are.

Shyness can be used to explain why certain online tools or activities were avoided by ELLs in this study. For example, Emiri identified her shyness as the largest factor that prevented her from using online tools more in her first year of university, and as the second largest factor (after lack of time) in her second year. She said she wanted to post in the Emiha Learning Group on Facebook but “there are a lot of people in the group so I’m so shy so I can’t”. Hiromi was also too shy to take action. She followed some of her idols on Twitter and wanted to improve her writing skills but said, “I have no courage to Tweet to famous people, so I can just read them.” Perhaps their fame was partially responsible for preventing her from attempting to express herself, but it was not the sole reason as she faced similar difficulties in the Emiha Learning Group. She said, “In that group, members posted about their experiences or ways of studying. I am a member, and it was a good opportunity to post to that group and I wanted to do it, but I was too embarrassed.” For Chika, it was not using English that made her feel uncomfortable, it was her shyness of appearing on video. As she explained:

Chika: I have Skype friends but when I communicate with them I use chat only because videos [are] kind of embarrassing for me and I’d rather meet face-to-face and talk [about] something in English, yeah, than doing video chat.

Louise: Why is face-to-face better?

Chika: […] I’m shy, and face-to-face communication makes me feel [more] relaxed than videos.

The second factor that inhibited learners from using tools that required social interaction was their anxiety over being perceived as poor at English. Anxiety is a commonly noted affective factor that negatively influences language learners, with many empirical studies confirming that it is an issue that deserves attention in the English language learning context in Japan (for example, Kondo & Yang, 2003; Miyazato, 2003; Williams & Andrade, 2008). In my study, there was evidence of anxiety caused by what Horwitz, Horwitz and Cope (1986) have called fear of negative evaluation, which occurs when people are worried about how others view them. Hiromi exhibited signs of this in the following excerpt about why she refrained from writing in the Emiha Learning Group:

Hiromi: People who seem to be good at English write posts, and there were some that introduced books they had read. There were a lot of serious-looking books, so I felt ‘Ah...’ when I read their posts.
I am also embarrassed about having mistakes in my English. Many people read the posts, so it’s a bit... I think it is a little embarrassing to post.

Louise: Is it difficult to post because other students seem serious?
Hiromi: More than seeming serious, they seem to be great at English. If I made a mistake I don’t think they would point it out in a comment, but they might feel ‘ah, what?’ and I don’t want that to happen.

Shizuka faced the same dilemma, noting she was reluctant to post to that group as it would take a long time because “I’m not good at writing [in] English and it will be read by other students so I [need to] write very carefully.” Shizuka’s explanation seems to indicate that she felt pressure to write something that would be positively evaluated by others, and she felt she did not have the time required to produce posts like that so refrained from participating. She felt it could have been beneficial, noting, “If I posted [in that group], maybe my writing skills [would have grown], because my post [would be] read by Emiha University’s students.” This comment shows the value she attributed to her audience, but that very same audience is what left her unable to post. This replicated the experience she had in the Facebook Group in the writing course when she considered replying to comments. She noted, “When reading a comment, I began to [think about my] reply, but I want[ed] to write correct grammar or [suitable] sentence[s], so I [had] to [use a] dictionary or grammar book, so I [planned to] do this later, and I forgot.”

Shizuka may have been able to overcome her inhibitions if she tried writing more, as some students seemed to lose theirs when tasks became familiar to them. For example, Rei started out feeling embarrassed about sharing her English Reports with her classmates, but said “the more I posted, the less I [felt] embarrassed.” Kiyomi had a similar experience in the group. At first, she felt discomfort, noting, “As I was posting I was worrying about whether my English would be understood and whether my grammar was correct.” However, she said, “[Later] I was less concerned over my grammar and whether my English made sense than I was about writing lots of information.” Through being required to post and comment in the class’s Facebook Group, she managed to get used to sharing online messages about her learning experiences with her classmates and teacher. This is significant to note as it suggests that while certain students may not choose to engage in activities like those above due to their shyness and anxiety, some who are initially resistant can grow more comfortable doing so if educators offer them supportive experiences within the safety of their class-based learning environments.
7.4 Chapter Conclusion

This is the final of four chapters that present the findings of this study. This chapter has provided evidence of numerous factors that impacted upon student motivation. Questionnaire data showed that improving their language skills, enjoying their hobbies and accessing new information were key forces in motivating them to use online tools in English. Interview data showed students were motivated to use digital technologies that enhanced their enjoyment and interest, could be used when and where they desired, and were easy to use. Furthermore, it showed some students wanted to use online tools because they felt they offered a way to access English and the English-speaking world. In contrast, questionnaire data showed that students were mainly deterred due to concerns over privacy and having their personal information available online, along with a lack of confidence in using them and a lack of English speakers to use them with. Interview data emphasised the impact that privacy concerns had upon motivation to use online tools, and also highlighted the inhibiting influence shyness and anxiety had upon motivation to use tools that required social interaction. When considering deterring factors, it is important to note that factors beyond the formal learning environment often had an impact upon learners. This is natural as students are individuals who have complex, multifaceted identities and are influenced by their experiences in the myriad of social worlds they exist within. However, it should also be noted that teacher support, such as guidance on effective online security measures, could sometimes remove or reduce learners’ concerns about using online tools.

The empirical support that this chapter has provided on L2 learner motivation to use digital technologies for language learning makes a valuable contribution as these findings both support earlier work and can be used to inspire new studies. In the four findings chapters, a wealth of information about the results has been presented. The following chapter provides a discussion of the most important points that deserve elaboration.
Chapter Eight: Discussion

8.1 Introduction

This chapter brings together some of the most salient points that can be drawn out from the study for discussion. It opens by exploring the concept of autonomy as a collaborative journey, exploring the part teachers can play in establishing planning-action-reflection cycles, then turns to their roles as social connectors and community builders. Next, it examines the notion of L2 learning motivation, positioning it as a multifaceted, fluid construct. After that, it highlights the need to move beyond the homogenous conceptualization of young learners as digital natives (Prensky, 2001; 2005-2006) from the Net generation (Tapscott, 2009), explaining why educators and researchers should be more concerned with students’ tech-comfort and tech-savviness (Pegrum, 2014), as well as their tech-resistance (a term developed in this study). Finally, it examines ways to facilitate students’ use of digital technologies for language learning and explores systemic constraints that inhibit this.

8.2 Autonomy as a Collaborative Journey

This study aimed to create a deeper understanding of how to best support learners’ autonomous, out-of-class use of digital technologies, so it is imperative to return to the key construct of autonomy. As noted in Chapter Two, autonomy is a construct that has multiple meanings that have changed over time, with ongoing dialogue within SLA research as to what learner autonomy actually encompasses. Historically, there was little emphasis on the collaborative nature of learner autonomy, with Holec’s (1981) foundational work on autonomy in the language learning context defining it as “the ability to take charge of one’s own learning” (p. 3). However, over time there were shifts to more collaboratively oriented definitions that recognised the role others can play in autonomy building (Nunan, 1997, 2003; Blidi, 2017). This study adds to that dialogue by positioning autonomy as a collaborative journey that involves students, teachers, classmates and other important community members.

This study aligns with Blidi’s (2017) Collaborative Learner Autonomy perspective, which sees an active role for teachers as learning guides at the start of a students’
autonomy journey, supporting them on a path towards self-reliance and decision-making in their own learning. To use Blidi’s (2017) terminology, learners move along a Collaborative Learner Autonomy continuum that begins with Responsible Reliance on the Teacher. My actions as a teacher aimed to increase students’ capacity to plan, monitor and evaluate their learning to encourage out-of-class English study using digital technologies. Students were autonomous in that they used resources that they selected in ways that they chose to use them, for lengths of time that suited them, and for reasons that they identified themselves. However, they did not do this completely unguided, with autonomy fostered through offering support structures and choice. The English Reports served as mediating tools that guided students towards planning-action-reflection cycles and they received feedback on what to use and how to use it through the Facebook Group, in the form of comments on their own posts, access to posts written by their peers, and comments on their peers’ posts. Requiring students to complete the English Reports and providing the Facebook Group for teacher-student and student-student interaction was a pedagogical decision that was made to extend the community of practice outside of the classroom walls and scaffold learning tasks through social interaction between more and less capable students, while also providing the “expert” voice of the teacher. After the course ended, students like Chika, who continued making efforts outside of class, could be seen as having moved along the Collaborative Learner Autonomy continuum, while those like Hiromi, who reverted back to doing only assigned homework, could be seen as needing a lengthier period of Responsible Reliance on the Teacher.

My findings show that teachers and classmates played a vital role in guiding students towards independently-controlled, out-of-class use of digital technology for language learning purposes, echoing Vygotsky’s argument that development is “from the social to the individual” (1986, p. 36). As noted by Murphey and Jacobs, “Being autonomous does not necessarily mean learning in isolation, but rather having the ability to metacognitively and critically make decisions as to the means one uses to learn and develop” (2000, p. 228). They elaborate by pointing out that “interdependence and collaboration are not left behind in achieving independence” (Murphey & Jacobs, 2000, p. 233). Furthermore, while Blin (2004) argues that learner independence involves “taking responsibility for one’s own learning, setting objectives, and making informed pedagogical decisions based on some form of self-evaluation” (p. 378), she notes that this independence is exerted within sociocultural contexts that are shaped by learners’ interdependence with teachers and peers. Therefore, the role that teachers and classmates play in learners’ development
Chapter Eight

of autonomous, out-of-class learning practices should be seen as an integral element. In consideration of this, the role of teachers in helping students to establish planning-action-reflection cycles and their role as community builders are discussed in the following sections.

8.2.1 The Teacher’s Role in Establishing Planning-Action-Reflection Cycles

A key role of the teacher in this study was guiding students towards making plans related to their English learning goals, taking action, then reflecting on their experiences before continuing the cycle. As noted in Chapter Two, planning, action and reflection are elements that are commonly used in teacher-initiated action research (Mertler, 2009; Kemmis, McTaggart, & Nixon, 2014), but the process of setting goals and following this cycle is also effective for fostering students’ autonomous language learning. In this study, teacher support for goal setting and student adoption of planning-action-reflection cycles was primarily addressed through the English Reports and the Facebook Group. These simple additions to the writing course functioned as mediating tools that pushed students, to various degrees, towards goal-driven, out-of-class language learning. The role of the teacher in this process was vital as it helped in both stimulating and maintaining autonomous learning practices.

During the writing course, the English Reports functioned as a basic mediating tool that allowed students to maintain a focus on their learning objects to at least some level and it is worthwhile considering how this can be adopted more fully into educational settings in order to support students. All students periodically thought about their learning goals and regularly did something to work towards them during the writing course, but after the course some students lost the habit of identifying and working towards specific personal goals. For example, while in the writing course, Hiromi identified goals in all of her English Reports and took action between each one. However, when the writing course finished she no longer had support for her out-of-class learning or the opportunity to regularly see others working on their personal goals. She soon lost motivation and reverted to simply completing her homework rather than continuing to take the semi-autonomous actions that she had taken in her first year of university. As has been shown in earlier chapters, others also felt pushed into action by the combination of writing and sharing the English Reports. Making out-of-class activities visible through the reports pushed students to study as they felt a certain level of pressure to report having done
something and reading about what their classmates had done made them aware of their peers’ efforts. The English Reports that students completed and shared in this study were rudimentary in design, but the benefits gained suggest that offering students even a basic mediating tool to direct them towards goal-driven action and facilitating ways for them to share this has value. Educators may like to consider how they could adopt supportive tools like this into their courses.

The English Reports used in this study went some way towards fostering effective planning-action-reflection cycles, but students would benefit from greater support than what was offered to identify their most important goals and motives. There were sometimes inconsistencies between what students identified as their goals when looking forward and backwards. For example, in one report they would write they planned on improving their listening skills in the following two weeks but two weeks later, they would write their goal had been to improve their speaking skills. This may suggest a lack of real engagement with the goals they wrote about, but in all likelihood, it is much less simple than that. For example, these mismatches could have been due to a lack of time to complete the reports in detail. The English Reports were written in class with a limited period of time available, so students may have just included one of a number of their goals, writing about one at the start and reflecting about another in the next report.

Another reason for the inconsistencies may be that students were only asked to think of short periods of time ahead, generally two or three weeks, and were not asked to consider how these periods fitted within the larger spectrum of their language acquisition goals. They were asked to identify tools and tasks that facilitated movement towards their short-term goals, but they were not prompted to look at the bigger picture. To use activity theory terminology, students were directed to focus on operations and goals, but not motives (Leontyev, 1978). They may have had motives that included a wide range of smaller goals and had those goals in mind, writing about them selectively when completing their English Reports, or they may not have consciously identified their motives and the goals that they needed to reach along the way to address their motives. With few students listing their motives, and the teacher responding to each English Report individually as they were posted to the Facebook Group, it was difficult to understand what students were aiming for long-term and provide scaffolding that would help them make more meaningful plans. This suggests a role for teachers in negotiating long-term and short-term goals with learners, guiding them towards developing short-term goals that will help
them work towards their long-term ones. If educators know what students aim to do long-term, and have easy access to this information when providing feedback, they may be able to guide students more effectively. Some students included references to their long-term goals in their English Reports and their interactions on the Facebook Group, but this information was often lost in the stream of new posts that came in every two to three weeks so it was difficult to monitor.

A number of additional steps could be taken to ameliorate this situation. As noted above, long-term goals deserve greater attention. One option involves encouraging learners to think more about what they want achieve in the future and the steps they need to pass through to make it. A growing body of research (Dörnyei & Chan, 2013; Fukada, Fukuda, Falout & Murphey, 2011; Lamb, 2012; Magid, 2014) suggests that there is a significant link between learners’ visualized ideal L2 selves (Dörnyei, 2009), and their motivation, effort and eventual L2 proficiency. In a Japan-based study, Ueki and Takeuchi (2013) found that students with clearer images of their Ideal L2 self were more motivated than others, and those with less developed images of their ideal L2 selves felt more L2 anxiety. Therefore, incorporating activities that encourage students to create a detailed vision, defined by Dörnyei and Chan as “a personalized goal that the learner has made his/her own by adding it to the imagined reality of the goal experience” (2013, p. 455) would be beneficial. Ideally, this would be done before completing any tasks that attempt to work towards goals, with the visualisation shared in a format that is readily available to the teacher and all students throughout the course. This could be done online by creating folders or tags, or using a system other than Facebook, such as a learning management system (e.g. Moodle), that would allow students to privately share such information as part of a static profile page. Alternatively, it could be added as a short section that is pasted to the top of each planning/reflection task, serving as a reminder to the teacher and students whenever they look at those tasks.

In addition, the way students are guided towards goal setting and planning could be improved by encouraging students to make more concrete plans and think more deeply on the actions they should take. One way to do this is to provide guidance on how to formulate SMART goals. When the SMART goal concept originated in business settings the 1980s it was defined as follows:

1. **Specific:** target a specific area for improvement.
2. **Measurable:** quantify, or at least suggest, an indicator of progress.
3. Assignable: specify who will do it.
4. Realistic: state what results can realistically be achieved given available resources.
5. Time-related: specify when the result can be achieved.

(Doran, 1981, p. 36)

Since then, letters in the acronym have been represented by various words, such as “achievable” and “attainable” for A. In the present study, it would have been useful to familiarize students with a variation of SMART goals such as the following one:

**Specific:** What do you want to achieve in the next two weeks?

**Measurable:** Have you added amounts/lengths of time/other ways that make the goals measurable (i.e. how will you know when something is finished?)

**Achievable:** Is it possible for you to complete the tasks you listed in the next two weeks? Are you likely to complete them?

**Relevant:** Is your planned action well-connected to what you want to achieve?

**Time-related:** Have you identified when you will work on/complete each task?

In this version, I have selected words that are commonly-used in variations of the acronym and added my own questions to prompt students to consider each component. Providing examples of SMART and “unSMART” action plans would also be useful. For instance, learners could be shown how “I will watch TED Talks to improve my listening skills” could be made more measurable by stating how many videos they would watch and more time-related by stating when they would do it, elaborating to, “In the next two weeks, I will watch two talks on TED Talks each week on the way home from university to improve my listening skills”. They could improve it even further by thinking about how they could use it to improve their listening skills. For example, will they listen to each talk once or more than once, with or without subtitles, and if they use subtitles, will they be in their L1 or English? There are merits to each method, and students should consider which ways would be most relevant to their stated goal, and think carefully about the talks they choose to watch so that the topics and level are appropriate and contribute to their development. For example, choosing a talk in an area that has a large amount of unknown vocabulary would reduce the effectiveness of TED Talks as a tool for developing listening skills, so students should be prompted to think carefully about relevance when making plans.
8.2.2 Teachers as Social Connectors and Community Builders

Another key role of the teacher in this study was that of the social connector and community builder. This was touched upon earlier when noting the value of making students’ out-of-class learning practices visible to each other and providing them with a platform to share their experiences. The advice students exchanged and the knowledge they gained from reading about their peers’ learning attempts spurred them on and led them in new directions, and if steps had not been taken to embed opportunities for this into the writing course, students would not have shared their out-of-class learning practices to the extent that they did. That kind of sharing would have been much more limited without teacher involvement, as shown by Hiromi’s lack of engagement with peers about study after the writing course, so the value of teachers adopting a facilitating role cannot be overstated.

When examining the role teachers can play in shaping school-based communities, it is useful to apply the lens of Lave and Wenger’s (1991) Community of Practice (CoP) framework. As noted in the literature review, this framework, which draws on sociocultural theory and Vygotsky’s Zone of Proximal Development, is built on the premise that less experienced community members learn by watching and interacting with those who are more capable. The CoP that eventually developed during the writing course was predominately nurtured through the use of the English Reports and the Facebook Group. By bringing novices and more capable others (including classmates and the teacher) together with these mediating tools, social interactions that allowed for the transfer of knowledge and skills could take place. In an earlier chapter, we learnt that Kiyomi had never been interested in online tools or thought about using them to study English until her teachers and peers recommended them, and that once she tried them, she discovered that they offered her more opportunities than textbooks did. Deconstructing this and applying the CoP framework, we can see that Kiyomi entered the writing course, which became a CoP for the use of digital technologies as learning tools, without experience in exploiting them for language learning purposes. She entered as a novice, but this changed after interactions with her teacher and more capable peers; people who were able to identify learning opportunities that various digital technologies could offer and shared that knowledge with her. At the beginning of this study, students had varying degrees of experience using digital technologies in English. This difference in engagement and presumably skills highlighted an opportunity for students at different
levels to learn from each other, and coupled with my own extensive experience in exploiting digital technologies for language learning and teaching purposes, it paved the way for the development of a functioning CoP that supported students on the pathway to effective out-of-class use of digital technologies for language learning purposes.

Although students had opportunities to interact face-to-face in class, the online element played a vital role in developing the writing course’s CoP. This finding builds on other examples in which online components of face-to-face courses have contributed to community building. An example of this involves the use of the social networking service Ning during a Mandarin program for teenagers in the United Kingdom (Y. Yang, Crook & O’Malley, 2014). The teacher introduced Ning with the aim of fostering a sense of relatedness between students’ interests and Mandarin, to follow up on learning opportunities from the face-to-face component of the course, and to encourage autonomy. After analysing the students’ participation, the researchers found that “a sense of community was developed and sustained on the SNS across time” (Y. Yang et al., 2014, p. 275). Just like in Y. Yang et al.’s study, a key factor that led to the writing class’s CoP being successfully formed was that Facebook gave students access to each other beyond the physical classroom. To understand the significance of this, it is useful to recall Hiromi’s experiences, as she said it was joining that group which gave her a feeling of unity with the people in her class and without that online community, she might not have regarded the students in her class as “classmates”.

This affordance of digital technology is worthy of further exploitation as the extended interactions students had led to a sense of relatedness, which Blidi defines as “contact, support and community with others” (2017, p. 97). This term was adopted from self-determination theory, which defines it as the desire to experience meaningful connections with others (Deci & Ryan, 1985). It is viewed as important because “people tend to internalize and accept as their own the values and practices of those to whom they feel, or want to feel, connected, and from contexts in which they experience a sense of belonging” (Neimeic & Ryan 2009, p. 139). However, simply offering an online platform for this purpose is insufficient. The students in this study bonded through the Facebook Group but also had contact through face-to-face classes so knew at least a little about each other. When a different group (the Emiha Learning Group) was made and opened up to all students at the university, the sense of community was weaker. As noted previously, Hiromi joined that larger group but for her, the sense of relatedness was missing. She saw
the other members as strangers and simply read their posts, without engaging, due to her lack of familiarity with them. When students from her class recommended something, she was open to trying it even if she didn’t know them well, but as she was unfamiliar with the members of the larger group she was not prepared to follow their suggestions. We can see from this that she did not internalize what she read in that group, and that seems in part due to a lack of relatedness.

R. M. Ryan and Deci’s work postulates “that relatedness, the need to feel belongingness and connectedness with others, is centrally important for internalization” and “internalization is more likely to be in evidence when there are ambient supports for feelings of relatedness” (2000, p. 73). This suggests that if teachers want to enhance opportunities for internalization, they may like to consider playing a supporting role to help students develop strong relationships with their classmates and to build rapport between themselves and their learners. In the case of this study, the class’s Facebook Group, along with the defined tasks that students were expected to undertake in it, played a role in fostering the development of community and relatedness. Teachers in other learning contexts may like to consider if the avenues used in this study that fostered relatedness would be suitable in their contexts and consider others which could be used for this purpose. At the Psychology of Language Learning Conference held in Tokyo, R. M. Ryan (2018) suggested that relatedness can be supported by conveying respect, making individuals feel valued and significant, showing care and concern when challenges arise, creating a sense of warmth and inclusion and providing opportunities to contribute. In the writing course Facebook Group there was evidence of a feeling of inclusion as Hiromi felt like she was part of a community, but with the Emiha Learning Group this was missing. In the smaller group students were required to read their classmates’ messages periodically and respond to them with comments, but in the larger group commenting was completely optional, which resulted in many posts receiving few or even no comments from peers. From this perspective alone—one of having posts responded to rather than ignored—it is easy to see how students in the smaller group may have felt more valued and included and may have seen the group as warmer. There are considerations above and beyond the fact that the students shared face-to-face classes that could be responsible for Hiromi, and possibly others, developing a sense of relatedness with members in one Facebook Group but not the other. Therefore, studies that seek to increase understanding of practical steps that educators can take to increase relatedness would be valuable.
8.3 Motivation as a Multifaceted, Fluid Construct

In this thesis, motivation has been examined from multiple analytical perspectives across different time periods, with the results positioning it as a multifaceted, fluid construct. In questionnaires, students were asked about what motivated and deterred them from using online tools and their answers pointed towards the importance of various factors that had been surveyed. This was useful for determining how widely factors that were expected to influence learners actually did so, but there was no indication of how, why or when these factors motivated them. Through open coding of interview data, a more nuanced understanding emerged. For example, questionnaires showed that enjoyment was widely chosen as a motivating factor and interviews showed the types of tools that students enjoyed using, what they enjoyed doing on them and why they found it enjoyable. When activity systems analysis was used, it was possible to understand how different nodes could influence learners’ motivation to use online tools for English language learning or constrain their usage of them, and the role community played in stimulating learning emerged. Taken together, the findings that were presented through statistics, qualitative data, and activity systems analysis offer multiple perspectives with which to understand what motivated the learners in this study. Incorporating this range of data collection tools, working across various time periods, and using multiple theories and constructs to create new understandings of motivation brought a level of complexity that made it impossible to draw motivation together into a ‘tidy’ discussion; rather, it served to further emphasise its complexity.

A key finding that extended from this is that motivation is unstable, with motivation to study English, study it with online tools, and study it with particular online tools, ebbing and flowing across time and context. This echoes Allen’s contention “that it is impossible to view motivation as a stable, internal characteristic of individuals or to see students as possessing either ‘low’ or ‘high’ motivation” (2010, p. 45). It also reflects R. M. Ryan’s (2019) arguments that people’s types of motivation can vary over time and they can simultaneously experience different types of motivation. The types of motivation he referred to were theorised in self-determination theory’s autonomy continuum (R. M. Ryan & Deci, 2000). Their work proposes a continuum, starting with amotivation (non-regulation), then moving towards extrinsic motivation (external regulation, introjected regulation, identified regulation and integrated regulation) and intrinsic motivation (intrinsic regulation) (R. M. Ryan & Deci, 2000, p. 72).
Examples of amotivation, extrinsic motivation and intrinsic motivation were all found in this study, with fluidity occurring within learners for numerous reasons. In part, it occurred due to changes in aspects of individual learners’ activity systems, such as when existing objects were achieved or abandoned and replaced with new ones. Community also played a significant role in this fluidity, influencing all three areas. Allen explains that because human interaction with mediating tools, including social others, shapes people’s relationships with their world, it follows that “motivation is not located solely within an individual but is constructed and constrained by the learning context and evolves as individuals participate in learning activity” (2010, p. 30). R. M. Ryan and Deci highlighted the role people can play in enhancing others’ feelings of competence, which they argue fosters motivation. They argue that “social-contextual events (e.g., feedback, communications, rewards) that conduce toward feelings of competence during action can enhance intrinsic motivation for that action.” (R. M. Ryan & Deci, 2000, p. 70). During this study, there were numerous examples of students showing increased motivation to study English, and to do it with online tools, due to the influence of community members in their writing course. Conversely, there was evidence of demotivation when that community was deconstructed at the end of the course and a replacement community was not found. These findings signify a role for educators if they want to help enhance learner motivation.

A final point that is worth considering is the role that clear visions of a future self can play in motivation to study English autonomously and to use digital technology as a language learning tool. This study did not set out to deeply engage with Dörnyei’s (2002, 2009) L2 Motivational Self System but it revealed evidence of a link between clear “L2 ideal self” images and motivation to study autonomously, including with the use of digital technologies. In contrast, it showed evidence of motivation declining when a learner had an unclear image, or the image did not extend beyond turning in homework to pass English courses. Given the differences in the motivation of some learners in this study who portrayed evidence of a clear/unclear L2 ideal self, further research into this area and information for teachers on how clear images can be guided is warranted.

8.4 Educational Use of Digital Technologies as a Learned Skill

At the beginning of this study most of the students carried mobile devices in their pockets and had easy access to computers, yet for many, their uptake of digital technologies for
English language learning was low or non-existent, and some students did not view digital technology as a learning tool that they would like to adopt. However, by the end of the Teaching Period in this study there was a substantial increase in uptake and a wealth of positive feedback in regards to the role digital technologies can play in language learning. This section explores some important implications of these findings, first by highlighting the inapplicability of the broad-sweeping digital native (Prensky, 2001; 2005-2006) and Net generation (Tapscott, 2009) concepts, then introducing tech-resistance (my term), tech-comfort and tech-savviness (terms from Pegrum, 2014) as more appropriate constructs for helping educators to understand the needs of individual learners. The section ends by suggesting ways that teachers can try to facilitate their learners’ use of digital technologies for language learning purposes.

8.4.1 Rejecting “Digital Native” and “Net Generation” Ideologies

One of the focal points of this study was the extent to which ELLs in Japan use digital technologies to support their language learning and the results suggest that usage is far from ubiquitous, with many students showing a lack of familiarity with online language learning and some initially resistant to its uptake. Japan has a strong reputation as a technologically-immersed society, but this study suggests that digital technologies have not yet become fully integral to either formal or informal English language learning. Prensky (2001) described learners young enough to have grown up surrounded by digital technology as “digital natives” who learn in different ways to previous generations and readily manipulate digital technologies for learning purposes. However, this study showed that in high school, most of the students who participated were embedded within an educational system that largely relied on paper-based English language learning materials, with little use of digital technologies. The vast majority of students had never used the Internet in their English classes or for English homework, and while some of them had used English online outside of class, beyond their formal educational settings, a large proportion had never used any online tools in English during their high school years.

The findings in this study support a growing body of empirical research that contradicts the notion of young people as a homogenous Net generation (Tapscott, 2009) of technologically fluent digital natives (Prensky, 2001; 2005-2006) who expect to use digital technology in all facets of their lives. Prensky’s notions of young people as having advanced technological skills and a commonly-shared desire to use digital technologies
for learning were not supported by this study’s findings. In fact, the opposite was true, with many students lacking even basic operational skills and the “readiness” to engage with digital technology for language learning purposes. The new university entrants in this study did not have uniform tech-based knowledge, skills or preferences, and some were resistant to incorporating digital technologies into their studies. Their English Reports, interactions in the Facebook Group, questionnaire results and interviews demonstrated great diversity among learners, both in terms of what they wanted to do and what they were capable of doing, rendering the digital native construct inapplicable.

This construct has previously been criticized (Bennett et al., 2008; G. Kennedy et al., 2008; D. Kennedy & Fox, 2013; Kirschner, & De Bruyckere, 2017; Hargittai, 2010) yet it is still prevalent and being used within educational contexts to make pedagogical decisions (Kirschner & De Bruyckere, 2017). Caution is needed in this, as while some students are willing and able to harness the affordances that digital technology has to offer, it is dangerous to accept the notion that all students are digitally fluent and eager to embed a broad range of technologies into their language learning practices. Over-estimating students’ competence and comfort with technology can be problematic as it can prevent teachers from providing appropriate support. As Kirschner and De Bruyckere rightly caution, “The skills and competences attributed to this generation of students are the same as any other skills and competences, namely that they need to be properly taught and acquired before they can be applied” (2017, p.137). Furthermore, the assumption that students are ready and willing to embed digital technologies into their learning practices may lead to teachers overlooking the importance of highlighting the affordances that digital technologies offer. If teachers believe students already know about the benefits of these tools and are keen to use them, they may neglect to take steps that would make their potential usefulness clearer for learners. Therefore, digital native and Net generation conceptualizations should not be accepted without question when considering the uptake of digital technologies for educational purposes.

8.4.2 Learners as Tech-Comfy, Tech-Savvy and Tech-Resistant

Rather than relying on the Net generation and digital native constructs, it is worthwhile considering Pegrum’s (2014) “weak nativist perspective”, which points educators towards building and fostering students’ 21st century skills by drawing on and extending their existing digital literacies. Learners who fit Pegrum’s weak nativist profile are
generally tech-comfy, which means they are able to use new technologies socially and for entertainment, but not tech-savvy, as they cannot critically manipulate digital technologies for educational purposes. These terms relate to individual learner’s skills and capabilities rather than generalizing what they can do based on their age, as Prensky (2001) and Tapscott (2009) do. Most of the learners in this study made extensive use of digital technologies in their L1 so they were not unfamiliar with their use in their wider lives, but they had limited or no experience using them for language learning when they entered university. In Pegrum’s terms, these new university entrants were tech-comfy when using tools in their L1 and perhaps even in English in some cases, but when it came to using digital technology for their English development, they were generally not tech-savvy.

When considering the weak nativist perspective, Pegrum (2014) advocates supporting students in two ways. First, teachers can take an active role in helping those who are not digitally fluent to increase their operational skills then guide them towards tech-savvy tool use. Data on Internet use in formal English education in high school showed that most students had not been given opportunities to use it in English, and the lack of uptake of online tools by students outside of this setting suggests that most of them were unwilling or unable to do this on their own. However, as shown through numerous examples in Chapters Five to Seven, when technical and pedagogical support were offered, students readily incorporated digital technologies into their learning practices. This shows that students may willingly change if given sufficient guidance, or if teachers actively endorse the use of digital technologies. Benson notes that the accessibility to resources that digital technologies offer has put the “locus of control” in the hands of students much more firmly than was possible in the past (2013, p. 840), but my study suggests that without sufficient support from others, such as their educators, some students will not achieve this control. Therefore, if educators want students to be able to extend their out-of-class learning opportunities through the wide range of resources and learning opportunities that this digital age has to offer, they may need to consider taking on a facilitative role.

The use of “willingly change” above is an important point to return to as not all students were initially open to the use of digital technologies for language learning. In fact, some of them could be described as tech-resistant when learning English, which I define as unwilling to engage with digital technology for language learning purposes. At the start
of the writing course, *tech-resistance* was most clearly recognizable through direct statements of students’ unwillingness to use digital technology in an English course when asked about it in Questionnaire One. While their level of tech-comfort or tech-savviness may have influenced this decision, the focus here is on the resistance itself. Some stated that they *did not want to use* online tools in their English writing course for reasons such as a lack of confidence in using computers and anxiety about using online tools, showing that they were not tech-comfy. Others simply did not know what to use, showing a lack of tech-savviness. These students showed a clear unwillingness to embrace digital technology as a language learning tool, but that resistance subsided during the course. Many students who were initially resistant to using digital technologies in English in the writing course had used them extensively in their L1, indicating a certain level of tech-comfort, but this comfort did not readily transfer over to using digital technologies for English development. This partly stemmed from their unfamiliarity with English tools and their uncertainty over how to incorporate them into their English learning repertoire. This gap suggests there is a role for educators who wish to help ELLs to access the affordances digital technologies can offer. It has been argued that “the digital world lowers barriers to self-directed learning” (Ito et al., 2008, p. 2), but without help to overcome feelings of tech-resistance when learning English and attain tech-comfort and tech-savviness, some students will not engage with the digital world for language learning purposes, or only do so in minimal ways. To offer appropriate support, educators would first need to determine whether their students are tech-resistant, tech-comfy or tech-savvy, then consider the guidance they can offer within their teaching context. The next section suggests possible options for supporting learners.

### 8.4.3 Facilitating the Use of Digital Technologies for Language Learning

The findings of this study showed that students generally needed support in order to move towards tech-savvy use of digital technologies for their English development. This section looks at possible guiding roles for teachers to assist students to become more skilful in their operational and pedagogical use of digital technologies.

During the Teaching Period of this study, students’ use of digital technologies for L2 development was supported in numerous ways to reduce tech-resistance and build tech-savviness. The Technology Acceptance Model (Davis, 1986; Davis et al., 1989), modified to TAM2 at the turn of the century (Venkatesh & Davis, 2000), is a widely-used
model (Bolliger et al., 2015; Chih-Horng, Huey-Min, & Yuan-Chi, 2012; Teo, 2011),
posits that perceived ease of use and usefulness influence people's choices about whether
to accept or reject technology. Following the basic premise that technology would be
accepted more readily if students could use it and see how it would be useful to their
studies, the students in this study were given overt instructions that supported them in
their operational and pedagogical use of various technologies, most often through the
Facebook Group, but also during face-to-face lessons. This was done directly by me as
their teacher, and also by classmates. Sometimes guidance from peers occurred naturally
and other times it occurred because they were prompted to help each other (e.g. by tagging
students on Facebook with a request for them to provide information about a certain tool).
By the end of the research period, there were many examples of students being more
willing to use digital technologies after learning how to operate them and becoming
conscious of their pedagogical benefits, thus illuminating a vital role for educators in
changing attitudes and, as a result, learning practices. Therefore, language teachers who
wish to assist their students in becoming capable, autonomous users of digital
technologies for learning purposes may like to consider taking steps towards managing
the learning process so that students understand the potential benefits and have the
required technological and learning skills required to harness the opportunities that
technology offers.

Some teachers may feel they are not in a position to help their “digital native” students,
particularly if they feel they themselves are “digital immigrants”. Prensky positions
himself and other older teachers in the latter group, claiming that digital immigrants “still
have one foot in the past” (2005-2006, p. 9). However, the gap should be critically
questioned before assuming that younger students are naturally more adept at using digital
technology for language learning purposes. Although I am of the older “digital immigrant”
generation, my own skills, knowledge and experience using digital technologies for
language learning and teaching purposes far out-weighed those of most of the so-called
“digital native” students in this study, not only in terms of being able to manipulate digital
technologies for educational purposes, but also in terms of being able to complete basic
operational functions. My personal experience is not unique, with McNaught, Lam and
Ho finding that “so-called digital natives (students) were not always more digitally-
oriented than the so-called immigrants (teachers)” (2009, p. 10). Furthermore, the lack of
competency with digital technology found in my study is reflected in other research
conducted with ELLs in Japan (Mehran et al., 2017). These findings suggest that some
educators may actually be much more digitally fluent than their younger students, even at the operational level.

Despite this, while some educators would feel comfortable in guiding roles that relate to technology use, it should not be assumed that all teachers will have the skills and knowledge required to lead students towards the breadth of opportunities that the digital world can offer. There are certainly language educators who do fit Prensky’s (2001, 2005-2006) digital immigrant depiction and who would struggle leading the charge towards digitally immersed language learning. Those teachers may feel they will never be in a position to adapt, especially when told they cannot keep pace, as Prensky did when claiming, “Our students, as digital natives, will continue to evolve and change so rapidly that we won’t be able to keep up. This phenomenon renders traditional catch-up methods, such as in service training, essentially useless” (2005-2006, p. 9). This portrayal is misleading and unnecessarily discouraging. Instead of making educators feel like they are facing a losing battle, researchers and educational institutions should encourage teachers to extend their existing skill bases. It is only with teacher training and professional development, in formal or informal contexts, that progress will be made.

In this digital age, time should be invested into ensuring educators understand the digital landscape that surrounds them and can find the best ways to guide their students towards competent use of appropriate learning tools and study methods. Yet how can this be achieved? It may be argued that the onus is on educators to seek methods that will give them the skills and knowledge that they require to lead their students and, at a broader level, on educational institutions that employ them and the government bodies that lead educators. However, it must also be acknowledged that educators, institutions and government bodies each have their own independent and intertwining activity systems, and the complexity of these systems give rise to contradictions and tensions, including funding and time management issues. Therefore, while it would be beneficial for educators to lead their learners towards autonomous, out-of-class use of digital technologies for language learning, providing them with the necessary support to do this effectively is not an easy task. More thought and discussion between educators, institutions and government bodies is needed to realise this goal.
8.5 Systemic Constraints on Learners’ Use of Digital Technologies

Many factors that deterred students from doing out-of-class language learning with digital technology have been raised in previous sections, including a lack of operational skills and a lack of tech-savviness. This section examines systemic constraints that seem to play a role in inhibiting language learners in Japan from gaining optimal use of digital technology.

First of all, the Japanese educational system relies very strongly on paper-based learning materials and the peripheral role that digital technologies play may lead to them being seen as less important study tools or in some cases, lead to them not even being considered for study purposes. If students’ language learning experiences are largely or wholly restricted to paper-based tasks in their formal education, and their out-of-class experiences with digital technologies—if any—are invisible in class, this may contribute to the belief that paper-based learning practices are the ones students should adopt. I began questioning the link between formal high school learning practices and students’ perceptions of digital and paper-based materials when analysing interview transcripts. For example, Hiromi said that she felt like she was actually studying when she used paper and that the best way to study was with a pen and paper. During high school, she never used or considered using online tools to study English.

Hiromi’s comments made me question not only what students do to improve their language skills, but also what they thought of as “real study” and the influence that formal education may have upon that. Data from other students led me to the same question. For example, although Emiri had done things like watching YouTube videos and writing emails to communicate with others in English, she stated that she had not spent any time personally studying or using English outside of class. This suggests that she mainly saw herself as using online tools for leisure purposes and was not consciously or actively exploiting them for study, despite the fact that her endeavours online would have contributed to her English development in some way. Her experiences with digital technologies were outside of the school system and for personal reasons so were not seen as study. Students may be reluctant to devote time to developing their English skills through digital technologies if they perceive such tasks as outside of the sphere of real study or do not understand the ways that digital technologies can be harnessed as learning tools. Some students in this study were using tools for personal reasons and their tool use
certainly would have contributed to their English language development, but they did not seem to recognize this so missed valuable opportunities to exploit those tools further. Most students in this study did not have opportunities to use digital technologies to learn English within their formal education in high school and while this study did not actively probe this link, it is worth considering whether the absence of digital technologies in formal education leads to them being disregarded or even rejected as viable learning tools.

A report from Japan’s Ministry of Education, Culture Sports, Science and Technology (MEXT), that was published at the time that the students in this study were in the middle of their secondary schooling stated that students would use ICTs as part of their education (Japan MEXT, 2011). The report defined ICTs as “Information and Communication Technology, meaning technology related to information and communication, such as computers and the Internet” (Japan MEXT, 2011, p. 1). It recognized that these tools offered affordances such as removing time and spatial restrictions, enabling interactivity and facilitating easy customization, and highlighted their important role in a government aim to “cultivate abilities required for children who will lead the 21st century” (Japan MEXT, 2011, p. 6). The following was noted in the report:

> At schools, which are the major place for children’s learning and daily life, the ICT utilization in education should be promoted, with teachers fulfilling their duties and utilizing ICT in a manner that makes the most of its features. Such efforts will promote individualized learning responding to each child’s abilities and personality, and collaborative learning where children can teach and learn among themselves, along with conventional mass learning by class guidance all at once. (Japan MEXT, 2011, p. 6)

Part of the reason the government focused on this in 2011 was that despite previous efforts to integrate new technologies, research had shown that “ICT utilization in education in Japan has not been successfully advancing compared with other industrialized countries” (Japan MEXT, 2011, p. 1). Unfortunately, data collected in this study showed that three years after the report, many students who participated in this study had not had sufficient exposure to digital technologies in their secondary education, and this was particularly noticeable in their English language education. It was beyond the scope of this study to probe reasons for this, but in some cases, it may have been because of decisions made by individual teachers. In a study at a Japanese university, Lander (2015) divided 19 classes of students into a group that used analogue tools to study vocabulary and one that used blended learning. In his research article, he noted, “one teacher involved in this [study] had an aversion towards computers and decided that teaching in a computer class was beyond her abilities. This teacher returned to a regular classroom after week 2” (Lander,
2015, p. 374). This teacher’s lack of comfort with digital technology prevented her students from being exposed to blended learning opportunities and her decision to request a room change after having one lesson with students there may have even served to infer that computers are not ideal tools for language learning. It is conceivable that teachers are making similar decisions at other stages in formal English education, and perhaps it is even more common below tertiary level. In secondary schools in Japan it is rare to conduct English lessons in computer rooms and smartphone usage is generally prohibited (Lander, 2015). If students are not being exposed to digital technologies as learning tools in high school, and university teachers are making decisions like the teacher above made, then it should not be surprising that students do not embrace digital technology as a tool for learning English.

A recent government report raises the possibility of a deeper-seated reason than the instances of personal preference proposed above. The report included the following recommendations to improve English education:

- Through textbooks, the main educational materials [emphasis added], students’ abilities for thinking, judging, expressing, etc. should be further developed by conducting language activities, such as giving explanations, making presentations and discussing. The government will thoroughly reflect this intention in the next amendment of the Course of Study and promote the revision of the Ministry’s standards for textbook authorization [emphasis added].
- The government will consider the introduction of digital textbooks and educational materials, including audio and visual materials.
- An ICT environment for English education will be installed in schools [emphasis added] by actively using financial measures for ICT budget for local governments.

(Japan MEXT, 2014c, “Reform Item 4: Improvement of Textbooks and Educational Materials”)

The parts that have been emphasized with italics indicate three things. Firstly, government-approved textbooks were still the preferred norm for English education. Secondly, digital materials were only listed as a consideration, not a compulsory part of English education. Thirdly, plans had been made to cater to material needs for digital learning but there was no mention of practical measures that are needed to support integration. For example, there was no consideration given to how the facilities and devices should be integrated into English education or how teachers would be trained to use new technologies.
Chapter Eight

Drawing all of the threads in this section together, we can see that the government recognizes digital technologies as beneficial, but while there are strong directives on paper-based materials, with systems for textbook authorisation, there is little guidance for digital technologies. Steps have been taken towards ICT integration for many years, but at the time of this study digital technologies were seen as peripheral to English education. The importance of ICT has been acknowledged in the government’s English Education Reform Plan Corresponding to Globalization (Japan MEXT, 2014b). However, reform is being rolled out in increments between 2014 and 2020, with the latest update on practical plans for ICT listed in 2015 still focusing on “develop[ing] and prepar[ing] model teaching materials for Information and Communication Technology” (Japan MEXT, 2015). This is a step in the right direction, but it is likely that the road to effective integration into classroom practices will be long. Teachers need training to implement ICT-based learning, so until practical steps are taken to address this systemic constraint, it seems doubtful that digital technologies will be consistently and meaningfully integrated into English education. Continued stalling will have great impact, as if digital technologies continue to be overlooked in formal education, the tendency to not recognise their value for learning that was noticed in this study may carry over to future generations of students. Therefore, it is hoped planned reforms become actual reforms without further delays.

Even with slow reform from government, the picture for the future need not be so bleak. If educators choose to integrate digital technologies more prominently into their courses, emphasize the learning potential of tools, and endorse their use, there may be a change in attitudes that will eventually lead to a change in out-of-class learning practices. The findings of this study suggest that more research needs to be conducted into the relationship between a) learning materials that are integrated into or left out of formal high school and tertiary education and b) students’ perceptions of their value as learning tools and subsequent adoption of them for out-of-class, autonomous learning at high school and beyond.

Another major constraint seems to come from the large role that paper-based university entrance exams play in shaping educational practices. In 2014, the year participants in this study were undertaking entrance exams, the English section of the Centre Test had 55 questions in the written section and 25 in the listening section, all in a four-option multiple-choice format (National Centre for University Entrance Examinations, 2014). The written exam focused on vocabulary, grammar and reading comprehension, and the
listening exam asked comprehension questions about short dialogues and monologues. The written exam was worth four times as much as the listening exam and there were no components that required students to speak or produce written texts. Therefore, to prepare students for the Centre Test, it would seem the best way for high school English teachers to help students achieve their university entrance goal would be to focus on vocabulary, grammar and reading comprehension, with a smaller amount of time spent on listening comprehension tasks. There are established teaching methods and materials adopted by secondary schools that are believed to be effective for this and they generally do not involve web-based technology. Instead, schoolwork centres around paper-based materials, such as textbooks and worksheets.

Without strong evidence that web-based digital technologies can prepare students for entrance exams better than the paper-based ones, spending time on them may be seen as a subsidiary objective and inhibit uptake of such learning tools as university exams are too important to take risks with. The status of English in the Centre Test and in university admission in general cannot be overemphasised, even for students who do not want to use English in the future. Table 8.1, translated from Japanese, shows the breakdown of examinee numbers and percentages of examinees who took each subject in a recent Centre Test (National Centre for University Entrance Examinations, 2018). As can be seen, English is given a high priority by test-takers, with the number of examinees who took it outstripping other subjects, including Japanese. In addition, it is common for universities to hold their own institution-specific exams, with English components generally included.

<table>
<thead>
<tr>
<th>Subject</th>
<th>Number of Examinees in 2018 (Percentage of Total Examinees)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Japanese</td>
<td>525,042 (94.7%)</td>
</tr>
<tr>
<td>History and Geography</td>
<td>398,793 (72.0%)</td>
</tr>
<tr>
<td>Civics</td>
<td>205,174 (37.0%)</td>
</tr>
<tr>
<td>Mathematics 1</td>
<td>402,644 (72.7%)</td>
</tr>
<tr>
<td>Mathematics 2</td>
<td>361,410 (65.2%)</td>
</tr>
<tr>
<td>Science 1</td>
<td>162,491 (29.3%)</td>
</tr>
<tr>
<td>Science 2</td>
<td>244,419 (44.1%)</td>
</tr>
<tr>
<td>Foreign languages (written)</td>
<td>547,996 (98.9%)</td>
</tr>
<tr>
<td>Note: Over 99% chose English</td>
<td></td>
</tr>
<tr>
<td><strong>English listening</strong></td>
<td>540,723 (97.6%)</td>
</tr>
<tr>
<td>Total examinees = 554,212</td>
<td></td>
</tr>
</tbody>
</table>

(National Centre for University Entrance Examinations, 201828).

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28 This source was published in Japanese.
Results on the English components of entrance exams can make or break a student’s future as they have a strong influence on whether or not they will be accepted into a prestigious university. Japan is known as a *gakureki shakai*, which has been translated as an “educational credential” or ‘academic history’ based society – where schools and colleges are obviously stratified, and graduation from a particular school is in itself an indicator of achievement” (S. Ryan, 2008, p. 32). The importance of where one goes to university cannot be overstated, as graduating from a top-ranked university is seen as a fast-track to a successful career and a secure financial future. As noted by the Organisation for Economic Co-operation and Development (OECD):

> Everything hinges on a student’s performance in [entrance exams]. Because newspapers publish results regularly everyone knows the rankings of these institutions as well as the record of each compulsory and middle school in getting their students into the right high schools and universities. The newspapers are full of statistics for each school, much like the statistics for popular sports teams in other parts of the world. (2011, p. 146)

With high schools’ reputations strongly influenced by the number of students who are accepted into reputable universities, and students’ futures largely determined by exam results, teachers devote a substantial amount of time and effort to preparing their students for university entrance exams. The high stakes of these exams push students and teachers to focus on content that is likely to be tested and activities that will allow students to produce the correct answers in exam conditions, and in Japanese high school the tools of choice do not tend to be online ones.

There have been claims beyond this context that suggest learning how to use online tools and interacting through them is a move away from exam preparation, so can deter uptake. In an UNESCO study into social media, it was argued:

> Regular education struggles with adopting the full potential of ICT tools and methods for learning. . . . The test-oriented curricula inhibit the adoption of constructionist learning methods: Why learn centrifugal notions around the topic to be tested when there is already a shortage of time for covering the entire subject area? (Kommers, 2011, p. 9).

Put simply, this positions the entrance exams as a systemic contradiction because teaching in an exam-dominated environment may deter teachers from integrating technology into English language courses.

A similar conclusion has been reached in other exam-based contexts. After conducting research in Singapore and Hong Kong, Richards noted there were difficulties integrating
digital technology in education as “despite increased access to ICTs [information and communication technologies], the schooling systems in both countries still remain largely dominated by an exam-driven curriculum and traditional teacher-centered methods of pedagogy” (2005, p. 63). As students are so focused on preparing for their exams, they may not have the time or inclination to independently develop English skills that are not tested, and their teachers may be similarly reluctant to spend time encouraging them to do so. Therefore, the exam-dominated environment plays a role in reducing incentives for teachers to integrate digital technology into their classes, and this in turn leads to students having limited guidance in using it for English development. With preparation for paper-based examinations taking a dominant role in formal English education at secondary school level, the extent to which the current exam system undermines drivers of technology must be questioned. Paper-based learning is certainly valuable, but focusing on it exclusively prohibits learners from accessing many of the affordances that have been listed throughout this thesis.

Since data for this study were collected, there have been some steps taken towards changing the university entrance system. For example, in March 2018, the Japan Association of National Universities, which has representatives from 86 national universities (Japan Association of National Universities, n.d.), publicised draft guidelines that add privately run tests into the current university entrance exam system29 (“University of Tokyo,” 2018). In the same month, the National Centre for University Entrance Examinations announced the eight proficiency tests for English that would be accepted, all of which test reading, writing, speaking and listening30 (“8 Private English Tests,” 2018). On the surface, this expansion of the entrance exam system to cover all four language skills is positive and could foreseeably lead to greater use of digital technologies as some of the tests already have many online resources available to prepare for them. However, there is criticism against the planned reform, with Tokyo University, the highest ranked university in Japan and a very influential body in higher education, rejecting the use of privately run tests. This decision was related to fears that their results would be neither comparable or equally accessible to all students, and Tokyo University’s executive vice president, Hiroo Fukuda, stated that the university would be recommending that the Japan Association of National Universities revise its guidelines,

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29 The Japan Association of National Universities has only made the full guidelines available in Japanese but they have been referred to in English news reports.
30 The National Centre for University Entrance Examinations has not released this information in English but it has been publicized in English news reports.
highlighting concerns over how the new proposed system could lead to “high school English classes becoming mere prep lessons for privately run tests” ("University of Tokyo," 2018). Therefore, while reform is underway, it is unlikely to be a smooth road and there is likely to be confusion in the years ahead, with different universities using increasingly different admission systems. At this point, it is unclear what impact this will have on high school English education and the role of digital technologies. In my view, it would be unfortunate if the upheavals lead to further entrenchment of exam systems that deter the use of language learning through digital technology.

A further potential barrier to the adoption of digital technologies into formal English education may be due to differences in pedagogical values in Japan and the West, as Western learning theory largely embraces social constructivist approaches such as CLT and TBLT, but as implied by the overview of Japan’s English language education history in Chapter Two, constructivist approaches have not traditionally been favoured in English language education in Japan (Nishino, 2008). However, that is not to say that language learning based on a constructivist perspective is unsuitable in Japan or that teachers should not adopt it, as many studies (for example, Davies, 2015; Pinkman, 2005, Prichard, 2013) show that it can be successfully employed in the Japanese English language education context. Also, digital technologies are not restricted to tools that can be used for constructivist purposes, with many on the market replicating the behaviourist-style drills that are commonly adopted for learning the vocabulary needed for exam preparation.

8.6 Chapter Summary

This chapter has argued that autonomy is a collaborative journey that offers teachers an active role in supporting out-of-class learning. It highlighted the important roles teachers can play in assisting students to establish planning-action-reflection cycles and acting as social connectors and community builders. It positioned motivation as a multifaceted, fluid construct and considered what this meant for educators. It also argued for the need to move beyond the notion of young learners as a digitally fluent generation that is ready to access the affordances digital technology offers, proposing instead that educators consider whether their individual learners are tech-resistant, tech-comfy or tech-savvy, then assisting them at whichever stage they are at. It also drew on the TAM model as a basis for taking steps that increase perceptions of digital technology as both useful and easy-to-use for language learning. In closing, it noted systemic constraints that may
negatively impact on learners’ uptake of digital technology for language learning. In the chapter that follows, final conclusions that can be drawn from this research and the study’s wider implications are examined.
Chapter Nine: Implications and Conclusions

9.1 Introduction

In bringing this thesis to a conclusion, it is pertinent to return to the research questions to reflect on the most significant findings, consider the study’s limitations and highlight its implications for institutions, teachers and students. Furthermore, it is important to consider questions this research has raised and suggest new directions for further research. These points are looked at in turn below.

9.2 Returning to the Research Questions

The preceding chapters have addressed the research questions in various ways but have not explicitly answered them in a linear fashion. This section considers the questions one by one, summarising the key findings. The first question asked, “To what extent do ELLs in Japan use digital technologies to support their language learning?” The findings showed that most participants entered university with limited or no experience in using digital technology for learning English. Very few of them had used the Internet for classwork or homework in high school, despite government recognition that digital technologies were important tools for expanding students’ opportunities to use English, improve their English skills and increase their motivation for English language learning (Japan MEXT Commission on the Development of Foreign Language Proficiency, 2011, p. 8). The lack of integration of web-based digital technologies into formal English education meant that many students did not take up these valuable tools for language learning. Descriptions participants gave of their high school experiences painted a picture of a system that favoured acquisition of the skills tested on university entrance exams, with paper-based materials generally used for this. With high stakes university entrance exams taken by students throughout Japan, it is probable that the experiences of the students in this study were not anomalies, but rather offer insight into norms within high schools at the time of the study.

These findings reinforce the fact that Prensky’s (2001; 2005-2006) “digital native” construct and Tapscott’s Net Generation ideology cannot be homogenously applied to all young learners. With my findings revealing little use of web-based digital technologies in English in high school and a more recent study at a Japanese university showing that
students fell short of “digital native” competence (Mehran et al., 2017), university-level English educators in Japan may find it more prudent to assume that at least some of their students are not able to effectively exploit digital tools for educational purposes. In other words, it may be better for tertiary educators to assume that at least some students will not be what Pegrum (2014) calls “tech-savvy” when they begin university and may even require help at the operational level. Furthermore, they could be initially tech-resistant when learning English, which I have defined previously as being unwilling to engage with digital technology for language learning purposes. This study showed that overcoming tech-resistance and reaching a level of tech-savviness is possible with teacher support.

Question two asked, “How does teacher promotion of digital technologies influence ELLs’ autonomous, out-of-class learning practices?” The study showed that pedagogical decisions I made as a teacher played a noteworthy role in changing students’ learning practices. All students used more online tools during the writing course than before it and there was increased usage after it when comparing pre-course and post-course figures. Extracts from the English Reports, Facebook comments and interviews provide evidence to show that at least some of this could be directly traced to teacher support. My alignment with social constructivism led me to value social interaction for learning so promotion of digital technologies came primarily through interacting with students through Facebook about using digital technologies and encouraging them to interact with each other about it. The English Reports and Facebook Group were specifically designed to promote the use of digital technologies, so whether students were influenced by me or their peers when using these two pedagogical tools, changes in their learning practices can be traced back to teacher effort to promote usage. In terms of evidence, there were numerous instances of students starting to use particular online tools after they were recommended by me or their classmates and in some instances comments that acknowledged this connection could be found on Facebook or in interviews. Furthermore, I actively sought to expose students to their peers’ learning practices, with the belief that seeing effective use of digital technologies by classmates would spur others to adopt similar practices, and the findings showed that this occurred.

Not knowing how to operate tools was a barrier to adoption, so steps taken to overcome this can also be viewed as a form of teacher-led promotion. In the Facebook Group, students received operational support directly from me or their classmates when they
asked for assistance or it was offered to fulfil a perceived need for it. They were also able to receive it when reading interactions between others in the group. One reason the Facebook Group was created was that it would provide opportunities for tasks to be scaffolded through social interaction, both by me and students’ more capable peers. There were numerous examples of the course-based community scaffolding operational use for learners, and this could be seen as contributing to changes in students’ out-of-class learning practices.

There is a focus on autonomous, out-of-class use embedded within question two, so it is pertinent to return to this aspect. A key finding is that all students showed a willingness to embrace digital technologies when teacher support was offered. All case study participants, including those who had never used online tools in English before and those who said they did not initially want to use them in the writing course, chose to use them to work on their English skills outside of class in most of the English Report study periods. In the first two English Reports, students were required to use online tools outside of class and for the remaining reports the use of them was optional but strongly encouraged, both through the type of support I offered in the Facebook Group and prompts in the English Report template that asked about their usage. Yet students were not assigned any grades for using online tools and there were no penalties if they chose not to do so, which removed teacher control and put control in students’ hands. Therefore, their autonomous use of digital technologies was fostered through teacher support, highlighting the collaborative nature of learner autonomy and the important role teachers can play. At the end of the writing course some students had achieved a level of tech-savviness and autonomy that allowed them to continue using digital technologies without on-going support from within their formal learning community, while others were unable to sustain such learning practices. More work is needed to understand the complexities of the relationship between formal education and the use of digital technology for autonomous, out-of-class learning. However, the findings of this study show that it is certainly possible for educators to support learners with this but that some learners will need this support long-term in order to make sustained changes.

The third research question asked, “What are ELLs’ perceptions of digital technologies before and after teacher-led promotion of their use?” The most salient finding is that there was initially a lack of recognition of digital technologies as valuable language learning tools before they were actively promoted as such in the writing course, but that students
began to perceive them in this way during the course. Creating opportunities for students to use these tools in a supportive environment helped them to become comfortable with this mode of study and discover some key affordances, which in turn led to an increase in positive perceptions. Some students showed a dramatic transformation in their view of web-based digital technology, initially rejecting or overlooking it as a learning tool then later coming to highly value it for the benefits it could offer. All students indicated they planned to use a range of online tools to study English after the writing course, which points towards their recognition of them as accessible and useful learning aids. In many cases, these positive perceptions were matched with sustained usage after the course, and in instances where usage waned, there was evidence to suggest that the positive perceptions were sustained but that more support was needed for action. As negative and neutral perceptions were a barrier to usage prior to the writing course, value can be seen in educators taking action towards creating positive perceptions of digital technologies as language learning tools.

The final research question asked, “What motivates or discourages ELLs in Japan from using digital technologies for autonomous, out-of-class English language learning?” When considering students’ motivation, this question can be broken down into two parts; motivation to study and motivation to undertake particular types of study. Social interaction was a strong motivator for both. First, during the writing course, there was evidence of course-based social interaction motivating learners to choose to make time to study. Through the English Reports and the Facebook Group, students could see each other’s efforts and received feedback and encouragement from others. This had a positive impact on their motivation to take action. Some students were also motivated by people outside of their course-based community, such as club members and friends. Seeing these people making efforts to improve themselves or being directly encouraged by them pushed students to try harder. There was also evidence of students choosing to use particular tools after they were recommended by their classmates, teacher or people outside of their course-based community. These findings highlight the importance of the community node in students’ activity systems and the impact it can have on learning.

When it comes to the types of learning that students were motivated to do, the study found that enjoyment and interest strongly influenced students’ task and tool choices. This is not entirely surprising as there has long been evidence of learners using digital technologies in their L2 to pursue their interests, with Lam reporting on web-based
autonomous language learning as far back as 2000. Despite this, after reviewing six decades of language motivation research, Al-Hoorie noted that “emotions have not received adequate attention in the second language acquisition (SLA) field in general and in language motivation in particular” (2017, p. 4). This echoes claims by Dörnyei and Ryan that emotions have been “the greatest omission” (2015, p. 9) when examining individual differences and that this has led to an “emotional deficit” in motivational research (2015, p. 10). Furthermore, R. M. Ryan (2018) has pointed out the importance of interest in motivating individuals into action and argued that the quality of motivation when learners have interest is very different to when they are motivated out of fear or for externally offered rewards. This study concurs with the notion that emotion is important, with students showing strong evidence of the power it had in motivating them. The findings show that being able to use online tools to enjoy doing hobbies was a key motivator, and highlighted other motivating factors that led to enjoyment, such as the incorporation of game-like elements. What is interesting and enjoyable will clearly depend on the individual, but it is valuable to recognise the importance of these factors and to consider them when guiding students towards autonomous learning tasks and tools.

In terms of deterring factors, the central ones found in this study related to students’ concerns over privacy, their reluctance to share personal information online, and a lack of confidence in using online tools. To address these issues, students were given guidance to manage privacy settings and to help them restrict the personal information they shared. Furthermore, their confidence was targeted by helping them to choose appropriate tools and learn to operate them. There was evidence of students showing willingness to embrace digital technologies more fully after these deterring factors were addressed, which signals a role for educators. In addition, this study provides evidence of resistance being overcome when support was offered. Therefore, educators and researchers should consider carefully whether or not initial resistance from learners should discourage them from pushing for integration of digital technology as a learning tool. The conclusion reached in this study is that students should be challenged to adopt digital technologies for language development, with appropriate scaffolding measures offered to support them.

This research question examined both motivation and autonomy, and their connection warrants comment. Ushioda (2011) raised the question of whether learners need to be motivated in order to be autonomous, or if autonomy can lead to motivation, and concluded that it is possible for this to occur in both directions. The findings of this study
suggest that by directing students towards appropriate technologies and offering support for their adoption, teachers can increase students’ motivation to use digital technology for learning purposes and lead them on the path to autonomous use. However, some students showed signs of motivation while teacher-dependent and other students—or the same students at different times—gained motivation through their autonomous pursuits. Therefore, this study supports Ushioda’s (2011) notion of either motivation or autonomy being able to come first. In addition, it suggests that efforts educators make to increase learners’ autonomy through supporting their use of digital technologies for L2 development purposes may foster both their motivation and their autonomy.

9.3 Key Implications

The fundamental aim of the study was to conduct research that would lead to a deeper understanding of how to best support ELLs’ autonomous use of digital technologies beyond their formal learning environment. The findings have implications for institutions, teachers and learners.

9.3.1 Implications for Institutions and Teachers

This section discusses key implications of the study for institutions and teachers. The ELLs in this study needed support to effectively use digital technologies for autonomous, out-of-class language learning, so implications centre around the way support could be provided.

First, institutions could help students engage more fully in their own learning by creating programs that push all learners to take more responsibility and have more say in the direction of their L2 development. This could be done more comprehensively than it was in this study if institutions formalised the inclusion of teacher support for autonomous, out-of-class learning. For example, institutions could build in components on goal setting and support for matching tools with study goals. To give students access to the affordances that digital technology can offer to autonomous learners, time could also be spent helping students to develop the skills they need to operate and exploit online tools for L2 learning purposes. Student support could be offered through a required subject with part of the syllabus devoted to building such skills, or through stand-alone subjects that aim to address them. If Emiha University, or indeed other institutions, want to
integrate this type of support into an existing subject, they should consider embedding it into one that has limited in-built homework and enough flexibility in the syllabus to allow for learner autonomy and digital technologies to be regularly addressed.

By integrating support for autonomous, out-of-class use of digital technologies as a standard part of English courses, institutions would not only give all learners the opportunity to be supported by teachers, they would make it easier to create classroom communities that learn with and from other. Sociocultural theory and social constructivism tells us that human development is linked to social interaction (Vygotsky, 1978) and this study showed students learnt how to find, operate and effectively use online tools by interacting with their teacher and peers. Creating an environment in which students’ basic operational skills with digital technology and their “tech-savviness” (Pegrum, 2014) were scaffolded by a teacher and classmates was an effective mode of support. If institutions want to replicate the type of learning community that was created in this study, they should consider the space that would be needed within their programs, the resources students and teachers would need access to, and the training that teachers would need in order to be able to effectively support the community.

When institutions want to help students to build autonomy and use digital technology as a learning tool, they need to begin by considering the practical support they can offer their teachers. It was beyond the scope of this study to consider teachers’ activity systems, but even a cursory glance at the issue suggests possible tensions due to misalignments between a hypothetical teacher’s object of helping students in these areas and nodes such as mediating tools (not all institutions have the required facilities or provide training in the use of digital technologies or self-directed learning), division of labour (busy teachers may not be able to manage taking on the extra workload without institutional support) and rules (a lack of space in the curriculum). Furthermore, Allan (2009) points out that when a wide range of digital technologies are used in workplaces, teachers may feel overloaded, noting, “This circumstance is exacerbated by the absence of a comprehensive training scheme, lack of practice time, and deficiencies in educational technology support staffing and planning” (Allan, 2009, p. 26). Therefore, institutions would need to consider ways within their contexts that would allow them to reduce the risk of overload and increase the likelihood that teachers would be able to adequately support their students. In addition, if an institution intends to adopt a more proactive role in supporting learner autonomy, it would be beneficial to involve teachers in discussions and training that could
encourage them to adopt beliefs that align with the institutions’ intentions. The influence teachers’ instructional behaviours have on students’ learning is significant (Mujis et al., 2014) and those behaviours are underpinned by their beliefs (Borg and Alshumaimeri, 2017). This thesis contends that learner autonomy falls under a spectrum and can occur with the support of others, including teachers, and argues that teachers and institutions have a crucial role in helping learners to build autonomy and to use digital technologies for autonomous learning tasks. Teachers may be more likely to fully embrace an active role in supporting learner autonomy if they have opportunities to learn more about this role through their institution and have opportunities to engage with colleagues about it.

Conversely, if teachers believe they have a role but institutions do not lead the way, teachers may not take steps to support their students by themselves. It has been argued that, “It is largely the teacher’s responsibility to develop learner autonomy” (Dam, 2003, p. 135) but this can be challenging when there are institutional constraints. As a teacher in this study, I was satisfied with the return I got for the time I invested, but I would have found it very challenging to allocate the same amount of additional time to all of the other subjects I was teaching. I feel it is unlikely that all educators would have or choose to make time to offer all of their learners the level of out-of-class support that I offered my students in this study. Creating new materials such as the English Reports, reading them and responding with advice and encouragement and monitoring the Facebook Group to ensure students were posting and commenting increased my teaching load. Therefore, while teachers may wish to replicate the level of support I provided with their learners, it will depend largely on multiple factors, including the extent to which their institutions are prepared to make room for these types of activities in their curricula and to offer other forms of support to educators.

It must be noted that a lack of support from institutions does not mean that teachers should or would abandon efforts to support their learners. Language courses have course-based objectives that must take a central place, but with a little creativity, teachers may find it is possible to add small components that encourage and support students to simultaneously work on their personal language learning goals and to take advantage of the affordances digital technologies can offer. If teachers have a heavy workload and do not have time for additional out-of-class interaction with their students, they could try adopting the key principles from this study in other ways. For example, this study highlighted the importance of making classmates’ out-of-class actions visible to each
other and fostering an environment in which they can make recommendations and support each other. In this study, it was done through Facebook but it could be done in class instead, with students thinking about their goals and creating study plans in class or for homework, and reporting back during lessons. This could be achieved to some extent even within in a short amount of time, as periodically as the educator’s context allowed.

So where do the answers lie in terms of the support formal education should offer students for autonomous, out-of-class language learning through digital technologies? At this point, there is no clear answer to how individual institutions and teachers should navigate the road ahead as there are many context-specific factors at play. However, it is hoped that this study will provide a measure of guidance and elicit new conversations on why support for out-of-class use of digital technology should be supported within formal language learning settings and how it could be implemented. The strongest message for educators and institutions is not that they should replicate this study to assist their learners; rather, it is that they should consider how context-based adaptations of the key principles may be suitable.

9.3.2 Implications for Students

This study was aimed at informing teaching practice more than directly informing learners about their learning practices, but it still yielded some noteworthy implications for learners. Some educators may find that the implications above cannot be acted upon within their teaching context but may still wish to support learners. In such situations, sharing the implications below may be worth considering.

As noted above, this study established that social interaction was central to learning how to effectively use digital technologies for language learning and also to enhancing motivation to study. There was evidence of this found through the course-based community and beyond it. Therefore, language learners are encouraged to seek opportunities to interact with others about their goals, plans and actions, and to share information about what they use to learn and how they use it. If they do not have opportunities to do this in their formal education, they should seek them in their personal networks or look for like-minded learners through avenues such as their institution’s English/L2 club or online groups that are dedicated to autonomous language learning.
Chapter Nine

The second implication is that learners should be proactive in educating themselves about the types of tools that could best support their language development and learning how to use them. There are a multitude of digital technologies that support language acquisition, and if learners have a web-capable device, they can access many of them at no cost, at times and in places that suit them. This widespread availability of learning materials can put the “locus of control” for learning in students’ hands (Benson, 2013, p. 840), but this will not happen if learners do not know how to find and use suitable tools. While some students will choose to learn by interacting with others as suggested above, others may prefer to take steps on their own. They could do this in a number of ways. For instance, they could search for tools related to their study goals by using keywords in search engines and app stores, as some students in this study did. If they do not know how to use a potentially useful tool, they could look up instructional articles and videos online, learn the basics through them, then develop their skills further by trying to use the tools and reaching out for support if they encounter difficulties. There are opportunities there if learners are willing to take them; they have only to search for them.

9.4 Limitations

Like all studies, this research project has some limitations that should be acknowledged. One pertains to the questionnaires and largely occurred due to the lack of time available for piloting. As I worked on a contract at the research site, my window of opportunity for conducting research there was limited and Questionnaire One was designed too late to pilot it after translating it. A lack of emphasis on tool use “in English” in the response options in question four and a missing response option (“never”) in question five led to these two questions becoming invalid. Another issue occurred with the online tool types that were targeted. The questionnaires asked about 18 tool types but two were removed when presenting the findings. This was because one was not defined clearly enough (online discussion tools for writing) and the other (online presentations) was not widely used as a language learning tool and was not used at all during the Teaching Period.

There were some further issues with terminology. The questionnaires were designed to capture information on usage of a range of tools (with space for additional tools to be listed) in formal education and beyond, and this was addressed by asking about “school-based use (in classwork or for homework)” and “private use”. Private use was designed to capture all usage beyond the formal learning context, such as self-study and use for
entertainment or social purposes. However, during analysis it was determined that this was not adequately defined and participants may have seen “private use” as non-study purposes, so validity could not be ensured. Fortunately, these questions could still provide insight into whether tools were used or not as responses for school-based use and private use could be amalgamated to indicate use (as opposed to non-use). Furthermore, the questionnaire results were used to create questions for interviews, allowing for types of usage to be confirmed and expanded upon there. Therefore, despite some of their short-comings, the questionnaires were a valuable data source.

A further potential limitation is that research related to digital technology dates very quickly due to the fast pace of technological development. The data presented in this study were collected in 2014 and 2015 so could already be considered dated. The tools that were available and popular at the time of data collection differ from those that learners and educators have at their disposal now and it is likely that exposure to various tools has changed somewhat, reducing the value of investigations into some of the tools. However, while technological developments may be fast, the speed of change within formal education is generally not. This is demonstrated within the study, as interviews showed some students had never used computers in high school outside of their Information Technology classes even though there were pre-existing government policies that targeted the integration of ICTs into formal education (Japan MEXT, 2011; Japan MEXT Commission on the Development of Foreign Language Proficiency, 2011). In addition, this study did not focus on the use of a particular tool, which could easily become outdated quickly. Rather, it explored learning practices with digital technologies from a broader perspective, focusing on factors that influenced usage. Due to this, the time that has elapsed since data collection is worth pointing out, but is not a strong limitation.

9.5 Avenues for Future Research

This study has contributed to what is known about the autonomous learning practices of ELLs in Japan, their use of digital technologies as a study tool, and the influence teacher-led action had on these areas. It has made meaningful contributions that could be built upon by re-examining the main research areas with different groups. For example, it would be worthwhile exploring how students are affected in different learning contexts, such as at the junior or senior high school level, and to examine the research questions
again at tertiary level at co-educational institutions at all year levels. Furthermore, it would be valuable to conduct research in contexts in which institutions or individual teachers take on some of the guiding principles from this study and integrate them into their English programs and to track students who participate in programs that offer more than one single academic year of support. Furthermore, it would be worthwhile replicating this study with students who had not chosen to study English or another target language but were required to do so. Students in Japanese universities are required to study English whether they wish to or not and the outcomes of this study would likely have differed if it had been conducted with learners who had no inherent interest in learning English. Research into these differences and insights into how to support learners who are studying their L2 less willingly would be very valuable.

One of the original contributions of this study was its demonstration of the insights that can be gained by viewing learner autonomy through the lens of activity theory. Researchers could expand upon this by making further use of activity systems analysis to track the development of learner autonomy over time. Meaningful contributions could be made to the field by conducting data-rich, single-participant case studies as well as larger scale ones that show how the complexities of intertwining parts of multiple activity systems affect learners who share the same formal learning environments. Additionally, using this framework to research learner autonomy with language learners who do not take formal lessons would not only bring valuable insights to that field, it may also offer insights for those in formal education to consider for use within their contexts.

Another valuable avenue of inquiry would be to investigate how the use of bilingual versus monolingual digital tools impacts on autonomous learning practices and motivation. This study briefly reported on instances in which students showed a preference for tools that had a Japanese interface or Japanese language features, but exploring this in depth was not a focal point of this study. Future work in this area would certainly be worthwhile.

In addition, as community and emotion played central roles in this study in motivating learners to use digital technology to develop their English skills, it would be beneficial to conduct further research into these areas. For example, future research could examine the impact of actively making learners aware of the benefits of interacting with other learners about their autonomous, out-of-class learning and use of digital technologies.
Alternatively, studies could further examine the impact of course-based CoPs that target these areas in different ways to those used in the study. Research into emotions could target areas such as the effect of teacher-led promotion of enjoyable and interesting out-of-class activities for language development. Longitudinal studies in this area would be particularly beneficial, as enjoyment and interest are known to ebb and flow.

Finally, more research is needed to understand what educators and institutions are currently doing to support learner autonomy and digital technology adoption for L2 learning, how willing/able they are to support learners, and what support they themselves need to do this. A combination of large-scale quantitative studies and smaller scale qualitative or mixed method studies would be particularly useful for providing a broad overview of the key issues and a deeper understanding of more nuanced issues.

9.6 Conclusions

This longitudinal study shows how ELLs’ made changes to their out-of-class learning practices, including a substantial increase in their use of digital technologies as English language learning aids. It has also provided evidence that supports the claim that some of these gains were made as a direct result of pedagogical decisions I made within their English writing course.

It offers a valuable contribution to SLA literature due to the breadth of digital technologies it examined and the length of the study. To understand how to fully support students, educators need to look beyond research on short-term use of teacher-selected tools for teacher-selected tasks, expanding their focus to longer-term studies that consider a more diverse range of tools that are chosen by students (with and without teacher support) to meet their individual goals. This study explored the influence formal learning can have on out-of-class learning practices both during a course that lasted for a full academic year and in the six-month period after it. There are many reports on students using digital technologies outside of class in course-based contexts, but there is little information available to tell educators what happens after courses finish. Without knowing long-term outcomes, it can be difficult for educators and institutions to assess whether the time, effort and other resources required to integrate new tools and pedagogies into courses are worthwhile. Through following up with students after their course, this study made it possible to gain insight into some of the long-term positive
influences teacher support had on some students and the negative effect its removal had upon others. In doing so, it showed that investing in such support can be worth it even for just one academic year, but that on-going support may be needed for some learners.

At the beginning of my doctoral journey, I was moved to action by Firth’s assertion that “What happens outside classrooms remains, mystifyingly, *terra incognita* for most language teachers and applied linguists” (2012, p. 10). My study has not left the role of institutions, teachers and classrooms out of the equation, but has looked beyond classroom activities and homework, taking steps towards demystifying what happens beyond courses. While this study represents the account of one teacher and the students in her teaching context, the findings may prove useful for educators in other contexts who wish to influence their own students’ learning practices. Therefore, this work makes a small but much needed contribution to the tapestry of knowledge that the SLA community is weaving together.
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Appendices

Appendix A: Questionnaire One (English Version)

1. Please complete the sections below in English.

Age ___________________
Nationality ___________________
Mother tongue ___________________
How many years have you studied English? ___________________

2. Please answer the following questions about your access to computers, smartphones, tablets and the Internet.

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
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<tbody>
<tr>
<td>Do you own a computer?</td>
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<tr>
<td>Do you own a smartphone?</td>
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</tr>
<tr>
<td>Do you own a tablet (ex iPad)?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you have Internet access (for a computer/tablet - not a smartphone) at home?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3. Have you used the online (web-based) tools below?

<table>
<thead>
<tr>
<th>Tool</th>
<th>No</th>
<th>Yes, only in my mother tongue</th>
<th>Yes, only in English</th>
<th>Yes, in my mother tongue and English</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social networking sites (Facebook, MIXI, Twitter etc.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blogs (Ameba, Livedoor, Blogger, etc.)</td>
<td></td>
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<td></td>
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<tr>
<td>Video sharing sites (YouTube, Vimeo, etc.)</td>
<td></td>
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<tr>
<td>Online news sites (BBC, CNN, Asahi Shimbun, etc.)</td>
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<td></td>
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<tr>
<td>Online games (computer/smartphone based)</td>
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</tr>
<tr>
<td>Online discussion (writing) tools (Ameba Community, Facebook Groups, etc.)</td>
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<td></td>
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<td></td>
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<td></td>
<td></td>
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<tr>
<td>Video call tools (Skype, Google Hangouts, etc.)</td>
<td></td>
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<td></td>
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<tr>
<td>Smartphone-based email or chat (LINE, iMessage, etc.)</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Computer-based email or chat (MSN, Gmail, Yahoo, etc.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Web-based dictionaries (including apps)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Podcasts (Apple Store, BBC, etc.)</td>
<td></td>
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</tr>
<tr>
<td>Internet search engines (Yahoo, Google, etc.)</td>
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<td></td>
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<tr>
<td>Translation sites (Google etc.)</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>English self-study sites (grammar quizzes, etc.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Online presentation tools (Prezi, etc.)</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Wikis (Wikipedia, etc.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apps (on smartphones or tablets)</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Please tell me about any other online tools you have used in the box below. Please tell me the name of the tools and which languages you have used them in.
4. I would like to know about the online tools students use in English. I am interested in school-based use (in class or for homework) and private use. Please tell me about your English use of the tools below.

<table>
<thead>
<tr>
<th>Social networking sites (Facebook, MIXI, Twitter etc.)</th>
<th>I do not use it in English</th>
<th>I only use it in class/for homework</th>
<th>I only use it privately</th>
<th>I use it in class/for homework AND privately</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blogs (Ameba, Livedoor, Blogger, etc.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Video sharing sites (YouTube, Vimeo, etc.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Online news sites (BBC, CNN, Asahi Shimbun, etc.)</td>
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<td>English self-study sites (grammar quizzes, etc.)</td>
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<tr>
<td>Apps (on smartphones or tablets)</td>
<td></td>
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</tr>
</tbody>
</table>

Please tell me about any other online tools you use in English in the box below. Please tell me the name of the tools and what you use them for (in class/homework/privately).
5. How often do you use the online tools below in English? Please choose from the options listed.

<table>
<thead>
<tr>
<th>Online Tools</th>
<th>Daily/almost daily</th>
<th>At least once a week</th>
<th>At least once a month</th>
<th>Less than once a month</th>
<th>Never&lt;sup&gt;31&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social networking sites (Facebook, MIXI, Twitter etc.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
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<td></td>
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<tr>
<td>Video sharing sites (YouTube, Vimeo, etc.)</td>
<td></td>
<td></td>
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<tr>
<td>Video call tools (Skype, Google Hangouts, etc.)</td>
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<td></td>
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<td></td>
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</tr>
<tr>
<td>Web-based dictionaries (including apps)</td>
<td></td>
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<tr>
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<tr>
<td>Translation sites (Google etc.)</td>
<td></td>
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<td></td>
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<tr>
<td>English self-study sites (grammar quizzes, etc.)</td>
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<td></td>
</tr>
<tr>
<td>Online presentation tools (Prezi, etc.)</td>
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<tr>
<td>Wikis (Wikipedia, etc.)</td>
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<td></td>
</tr>
<tr>
<td>Apps (on smartphones or tablets)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Please tell me about any other online tools you use in the box below. Please tell me the name of the tools and how often you use them.

---

<sup>31</sup> This column was part of the original English version but due to an error when translating, it was missing from the Japanese version that students completed, rendering the question invalid.
6. What motivates you to use online tools in English? Please answer this for each of the factors below.

<table>
<thead>
<tr>
<th>Motivation</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>I want to improve my English skills to do well on tests</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I want to improve my English skills to write better essays</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I want to improve my English skills to communicate better orally in English</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I want to improve my grammar</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I want to learn vocabulary</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I want to keep in touch with foreign people that I know (friends/home stay family/etc.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I want to communicate with my classmates/teachers in English</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I want to make new friends</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I want to get new information</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I want to enjoy my hobbies (for example, by listening to English music)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I want to get a good grade in my English class(es)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I want to use tools that my classmates say are useful</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I want to use tools that my teacher says are useful</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I don’t want to use any online tools</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Please add information in the box below if there is anything that is not listed above that motivates you to use online tools in English.

---

7. What discourages you from using online tools in English? Please answer this for each of the factors below.

<table>
<thead>
<tr>
<th>Disincentive</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>I don’t have a computer or tablet with Internet access at home</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I don’t have a smartphone</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I only want to do homework that is graded</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I have too much homework so do not have time to do self-study</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I don’t know any English speakers that I could use them with</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I don’t know how to use online tools</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I don’t feel confident using online tools</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I don’t think online tools are useful for improving my English skills</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am worried about privacy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I don’t want to put my personal information online (ex my real name, photographs)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>It is too expensive</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Please add information in the box below if there is anything that is not listed above that discourages you from using online tools in English.

---

261
8. Please tell me about your experience of studying English in high school.

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>In high school, I studied grammar and reading more than oral communication.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>In high school, I spent more time preparing for tests and exams than learning how to communicate in English.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>In high school, I did most of my English homework with a pen and paper.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>In high school, I did most of my English homework with a pen and paper.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>In high school, I wrote English more by hand than on a computer.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>In high school, I wrote 4-paragraph or 5-paragraph essays in English.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>In high school, I used the Internet in class or for homework (that my teacher set) to improve my writing skills.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>In high school, I used the Internet in class or for homework (that my teacher set) to improve my reading skills.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>In high school, I used the Internet in class or for homework (that my teacher set) to improve my listening skills.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>In high school, I used the Internet in class or for homework (that my teacher set) to improve my speaking skills.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

9. Which online tools would you like to use in [the writing course] in class/for homework? Please write your answer in English below. If the tools only have Japanese names, please write them in Japanese. If you do not want to use any online tools, please write “I don’t want to use any online tools because....” and tell me why.

10. This questionnaire is anonymous but after the writing course has been completed, some students will be invited to participate in interviews. In order to locate questionnaires completed by these students, all students are being asked to list a secret code on this questionnaire. Those students who agree to participate in interviews will be asked to reveal their secret code. Your secret code is your mother’s birthday plus the first letter of her first name. For example, my mother’s birthday is September 29th and her first name is Jill so my code is 0929J. Please write your code below.
Appendix B: Questionnaire Two (English Version)

1. I would like to know about the online tools you used in *English* at least once during [the writing course] (April 2014 to January 2015). I am interested in school-based use (in class/for homework) and private use. Please tell me about your *English* use of the tools below by ticking the appropriate box for each tool.

<table>
<thead>
<tr>
<th>Tool Description</th>
<th>I didn’t use it in English between April 2014 and January 2015</th>
<th>I used it in English between April 2014 and January 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>I only used it in class/for homework</td>
</tr>
<tr>
<td>Social networking sites (Facebook, MIXI, Twitter etc.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blogs (Ameba, Livedoor, Blogger, etc.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Video sharing sites (YouTube, Vimeo, etc.)</td>
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<td>Video call tools (Skype, Google Hangouts, etc.)</td>
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<tr>
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<td></td>
</tr>
<tr>
<td>Apps (on smartphones or tablets)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Please tell me about any other online tools you used in the box below. Please tell me the name of the tools and what you used them for (in class/for homework/privately).
2. Did you use the online tools below **for the first time in English** after starting [the writing course] (April 2014)? Please tick in the appropriate box for each tool.

| Social networking sites (Facebook, MIXI, Twitter etc.) | Yes: I used it for the first time in **English** after starting [the writing course] (April 2014) | No: I used it in **English** before starting [the writing course] or I have never used it in **English** |
| Video sharing sites (YouTube, Vimeo, etc.) |
| Online news sites (BBC, CNN, Asahi Shimbun, etc.) |
| Online games (computer/smartphone based) |
| Online discussion (writing) tools (Ameba Community, Facebook Groups, etc.) |
| Online discussion (speaking) tools (Skype, Voxipop, LINE, etc.) |
| Video call tools (Skype, Google Hangouts, etc.) |
| Smartphone-based email or chat (LINE, iMessage, etc.) |
| Computer-based email or chat (MSN, Gmail, Yahoo, etc.) |
| Web-based dictionaries (including apps) |
| Podcasts (Apple Store, BBC, etc.) |
| Internet search engines (Yahoo, Google, etc.) |
| Translation sites (Google etc.) |
| English self-study sites (grammar quizzes, etc.) |
| Online presentation tools (Prezi, etc.) |
| Wikis (Wikipedia, etc.) |
| Apps (on smartphones or tablets) |

If tools you used are not on the list above, write them in the box below.
3. Think about the online tools you have used in English since starting [the writing course] (since April 2014). Which ones are easiest to use? Please write at least three in the boxes below (one per box). Please write the name of the tools (for example Facebook), not the tool type (social networking sites).

Write the names of three online tools that are **easy to use** (required)

[ ]

[ ]

[ ]

Write the names of other online tools that are **easy to use** (optional)

[ ]

[ ]

[ ]

4. Think about the online tools you have used in English since starting [the writing course] (since April 2014). Which ones are most difficult to use? Please write at least three in the boxes below (one per box). Please write the name of the tools (for example Facebook), not the tool type (social networking sites).

Write the names of three online tools that are **difficult to use** (required)

[ ]

[ ]

[ ]

Write the names of other online tools that are **difficult to use** (optional)

[ ]

[ ]
5. Think about the online tools you have used in English since starting [the writing course] (since April 2014). Which ones are most useful for learning English? Please write at least three in the boxes below (one per box). Please write the name of the tools (for example Facebook), not the tool type (social networking sites)

Write the names of three online tools that are useful for learning English (required)

[ ]

[ ]

[ ]

Write the names of other online tools that are useful for learning English (optional)

[ ]

[ ]

[ ]

6. Think about the online tools you have used in English since starting [the writing course] (since April 2014). Which ones are least useful for learning English? Please write at least three in the boxes below (one per box). Please write the name of the tools (for example Facebook), not the tool type (social networking sites)

Write the names of three online tools that are NOT useful for learning English (required)

[ ]

[ ]

[ ]

Write the names of other online tools that are NOT useful for learning English (optional)

[ ]
7. What motivated you to use online tools in English during [the writing course] (April 2014 to January 2015)?

<table>
<thead>
<tr>
<th>Motivation</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>I wanted to improve my English skills to do well on tests</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I wanted to improve my English skills to write better essays</td>
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<td></td>
</tr>
<tr>
<td>I wanted to improve my English skills to communicate better orally in English</td>
<td></td>
<td></td>
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<tr>
<td>I wanted to improve my grammar</td>
<td></td>
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<tr>
<td>I wanted to learn vocabulary</td>
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<tr>
<td>I wanted to keep in touch with foreign people that I know (friends/home stay family/etc.)</td>
<td></td>
<td></td>
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<tr>
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<td></td>
<td></td>
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<tr>
<td>I wanted to make new friends</td>
<td></td>
<td></td>
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<tr>
<td>I wanted to get new information</td>
<td></td>
<td></td>
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<tr>
<td>I wanted to enjoy my hobbies (for example, by listening to English music)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I wanted to get a good grade in my English class(es)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I wanted to use tools that my classmates said were useful</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I wanted to use tools that my teacher said were useful</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I didn’t want to use any online tools</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

If you have any other reasons, please write them in the box below.

8. What discouraged you from using online tools in English during [the writing course] (April 2014 to January 2015)?

<table>
<thead>
<tr>
<th>Reason</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>I didn’t have a computer or tablet with Internet access at home.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I didn’t have a smartphone.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I only wanted to do homework that was graded.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I had too much homework so did not have time to do self-study.</td>
<td></td>
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<tr>
<td>I didn’t know any English-speaking people that I could use them with.</td>
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<td></td>
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<tr>
<td>I didn’t feel confident using online tools.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I didn’t think online tools were useful for improving my English skills.</td>
<td></td>
<td></td>
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<tr>
<td>I was worried about privacy.</td>
<td></td>
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</tr>
<tr>
<td>I didn’t want to put my personal information online (ex my real name, photographs).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>It was too expensive.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

If you have any other reasons, please write them in the box below.

9. How have your ways of studying English changed since you started [the writing course]? Please compare the six-month period before [the writing course] (October 2013 to March 2014) with the ways you study now and check the appropriate box for each statement.

<table>
<thead>
<tr>
<th>Change</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>I use more types of online tools in English now.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I use online tools in English more often now.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The length of time I spend using online tools in English now has increased.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I have a better understanding of how to use online tools in English now.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I have more confidence using online tools in English now</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am better at selecting online tools that are suitable for my English goals</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

If there are any other ways that your learning practices have changed, please write them in the box below.

267
10. I am interested in long-term learning practices. Which online tools do you think you will use to learn English in the next six months (February 2015 to July 2015). Tick the appropriate box for each tool.

<table>
<thead>
<tr>
<th>Tool</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social networking sites (Facebook, MIXI, Twitter etc.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blogs (Ameba, Livedoor, Blogger, etc.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Video sharing sites (YouTube, Vimeo, etc.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Online news sites (BBC, CNN, Asahi Shimbun, etc.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Online games (computer/smartphone based)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Online discussion (writing) tools (Ameba Community, Facebook Groups, etc.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Online discussion (speaking) tools (Skype, Voxipop, LINE, etc.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Video call tools (Skype, Google Hangouts, etc.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smartphone-based email or chat (LINE, iMessage, etc.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Computer-based email or chat (MSN, Gmail, Yahoo, etc.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Web-based dictionaries (including apps)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Podcasts (Apple Store, BBC, etc.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internet search engines (Yahoo, Google, etc.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Translation sites (Google etc.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>English self-study sites (grammar quizzes, etc.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Online presentation tools (Prezi, etc.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wikis (Wikipedia, etc.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apps (on smartphones or tablets)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

If tools you think you will use are not on the list above, write them in the box below.

11. This questionnaire is anonymous but in order to match your answers to this questionnaire with those from Questionnaire One, your secret code is needed. Please use the same one that you used in the first questionnaire, which is your mother’s birthday plus the first letter of her first name. For example, my mother’s birthday is September 29th and her first name is Jill so my code is 0929J. Please write your code below.

12. I am recruiting students to interview about their experiences using online tools. Please write your name here if you would like to be contacted about being interviewed:
**Appendix C: Questionnaire Three (English Version)**

1. I would like to know about the online tools you have used in **English** since you finished [the writing course] (February 2015 to July 2015). I am interested in school-based use (in class/for homework) and private use. Please tell me about your **English use** of the tools below by ticking the appropriate box for each tool.

<table>
<thead>
<tr>
<th><strong>I haven’t used it in English even once since February 2015</strong></th>
<th><strong>I have used it in English at least once since February 2015</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>I only used it in class/for homework</strong></td>
<td><strong>I only used it privately</strong></td>
</tr>
<tr>
<td><strong>I used it in class/for homework AND privately</strong></td>
<td></td>
</tr>
<tr>
<td>Social networking sites (Facebook, MIXI, Twitter etc.)</td>
<td></td>
</tr>
<tr>
<td>Blogs (Ameba, Livedoor, Blogger, etc.)</td>
<td></td>
</tr>
<tr>
<td>Video sharing sites (YouTube, Vimeo, etc.)</td>
<td></td>
</tr>
<tr>
<td>Online news sites (BBC, CNN, Asahi Shimbun, etc.)</td>
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<td></td>
</tr>
<tr>
<td>Apps (on smartphones or tablets)</td>
<td></td>
</tr>
</tbody>
</table>

Please tell me about any other online tools you have used in the box below. Please tell me the name of the tools and what you use them for (in class/homework/privately).
2. Think about the online tools you have used in English since you finished [the writing course]. Which ones are easiest to use? Please write at least three in the boxes below (one per box). Please write the name of the tools (for example Twitter or Facebook), not the tool type (such as social networking sites).

Write the names of three online tools that are easy to use (required)


Write the name of other online tools that are easy to use (optional)


3. Think about the online tools you have used in English since you finished [the writing course]. Which ones are most difficult to use? Please write at least three in the boxes below (one per box). Please write the name of the tools (for example Twitter or Facebook), not the tool type (such as social networking sites).

Write the name of three online tools that are difficult to use (required)


Write the name of other online tools that are difficult to use (optional)


4. Think about the online tools you have used in English since you finished [the writing course]. Which ones are most useful for learning English? Please write at least three in the boxes below (one per box). Please write the name of the tools (for example Twitter or Facebook), not the tool type (such as social networking sites).

Write the names of three online tools that are useful for learning English:


Write the names of other online tools that are useful for learning English (optional):


5. Think about the online tools you have used in English since you finished [the writing course]. Which ones are least useful for learning English? Please write at least three in the boxes below (one per box). Please write the name of the tools (for example Twitter or Facebook), not the tool type (such as social networking sites).

Write the names of three online tools that are NOT useful for learning English (required):


Write the names of other online tools that are NOT useful for learning English (optional):


6. What has *motivated you to use online tools in English* since you finished [the writing course] (February 2015 to July 2015)?

<table>
<thead>
<tr>
<th>Option</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>I wanted to improve my English skills to do well on tests</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I wanted to improve my English skills to write better essays</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I wanted to improve my English skills to communicate better orally in English</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I wanted to improve my grammar</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I wanted to learn vocabulary</td>
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<td>I wanted to get a good grade in my English class(es)</td>
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</tr>
<tr>
<td>I wanted to use tools that my classmates said were useful</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I wanted to use tools that my teacher said were useful</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I didn’t want to use any online tools</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

If you have any other reasons, please write them in the box below.

7. What has *discouraged you from using online tools in English* since you finished [the writing course] (February 2015 to July 2015)?

<table>
<thead>
<tr>
<th>Reason</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>I didn’t have a computer or tablet with Internet access at home.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I didn’t have a smartphone.</td>
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<tr>
<td>I only wanted to do homework that was graded.</td>
<td></td>
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<tr>
<td>I had too much homework so did not have time to do self-study.</td>
<td></td>
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<tr>
<td>I didn’t know any English-speaking people that I could use them with.</td>
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<td>I didn’t know how to use online tools.</td>
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<tr>
<td>I didn’t feel confident using online tools.</td>
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<tr>
<td>I didn’t think online tools were useful for improving my English skills.</td>
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<tr>
<td>It was too expensive.</td>
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</tbody>
</table>

If you have any other reasons, please write them in the box below.
8. How have your **ways of studying English** changed since you finished [the writing course]? Please compare the period during the writing course and the six months after it (February 2015 to July 2015).

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>I use more types of online tools in English now (post-course).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I use online tools in English more often now (post-course).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The length of time I spend using online tools in English now (post-course) has increased.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I have a better understanding of how to use online tools in English now (post-course).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I have more confidence using online tools in English now (post-course).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am better at selecting online tools that are suitable for my English goals now (post-course)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

If there are any other ways that your learning practices have changed, please write them in the box below.

9. This questionnaire is anonymous but in order to match your answers to this questionnaire with those from questionnaires one and two, a secret code is needed. Please use the same one that you used in the first questionnaire, which is your mother’s birthday plus the first letter of her first name. For example, my mother’s birthday is September 29th and her first name is Jill so my code is 0929J. Please write your code below.
Appendix D: Sample of Guiding Questions for Interview One

All interviewees were asked similar questions, with some tailored to their specific experiences. The notes below were used as a guide when conducting Emiri’s interview. Parts that relate to her personal experiences (as ascertained through earlier forms of data collection) are underlined.

**Before the Writing Course**

- You have just about finished your first year of university. I’m sure you have had a lot of new experiences and hope you have enjoyed the year. I’d like you to think back a little to the end of high school.
- Can you tell me how you studied English before you started university?
- What kind of things did you do in English outside of class? (Prompt for homework and private use).
- On the first questionnaire, you wrote that you used several online tools in English. Which ones did you use most? What for?
- How did you feel when you heard your writing course was in a computer room?
- How did you feel about the [writing course] website?
- How did you feel when I asked you to try to use online tools for homework?
- How did you feel when I asked you to write about using online tools through the [English Reports]? How did you feel about sharing this information with your classmates and me?
- On your first questionnaire, you were asked which online tools you would like to use in our writing course and you wrote “Google”. Why did you choose it? What did you want to do with it? If you had to answer the question again now, what would you write? Can you explain why?

**During the Writing Course**

- Let’s talk about the past 10 months. Except for Facebook, which you used for homework, which online tool have you used the most since April? Listen and prompt her about the topics below if they don’t come up.
- Why did you start using it?
- Was it easy to learn how to use it?
- What did you do with it?
- How did it help you?
- How often did you use it?
- Why didn’t you use it more?
- Did you want to use it in class?
- What motivates you to continue using it?
- Can you tell me about another tool that you found useful? Listen and prompt. Ask about YouTube if not mentioned.
- Can you tell me about some tools that you didn’t use much? Why didn’t you use them? Ask about Skype. Lack of opportunity? Listen and prompt.
- Think about a tool that you heard about in our writing course but didn’t try. Why didn’t you try it? Listen and prompt.
- Think about tools that you wanted to use more. Why didn’t you use them more? Listen and prompt.
Past to Future

- I’d like you to think about the first day of our writing course and compare it with now. Do you think of online tools differently now? How?
- How effective do you think online tools are for helping you to learn English?
- Has our writing course changed the way you think about using online tools to study English? How?
- Has being in the writing course changed the way you study? How?
- Since April, what has limited your use of online tools for English self-study?
- You said in questionnaire two that you think you’ll be using (these tools – show her the questionnaire) next semester. Why did you choose these tools?
- In your final assignment, you wrote that you want to improve your speaking and to “practice to output what I thought”. You wrote that you want to get better communication skills and do better on (a reading exam - TOEFL/TOEIC?). Why did you choose these goals? Which tools will you use most to work on these goals? How will you use them?

Facebook

Note: She’s not part of the Emiha Learning Group but uses Facebook privately.

I set up two Facebook groups for students - one for your class and one for all students at this university (the Emiha Learning Group).

Facebook – Class Group

I’d like to ask you about our class’s Facebook Group first.

- Can you tell me about your use of this group?
- Can you remember when you joined Facebook? And the group? Can you tell me about how you joined? Did you have any problems?
- Can you remember your first post? (With follow up prompts about the experience). If not covered - At that time, how did you feel about posting your assignments in the group?
- Can you tell me about something you posted towards the end of semester two? If not covered - How did you feel about posting in the group towards the end of semester two?
- Do you think the Facebook Group has helped you to learn English? How? (Sharing posts/comments?)
- Have you been able to learn from the group through reading the posts and comments?
- Can you tell me about a post you have read that was written by another student? If not covered – ask about how it helped her (new tools/skill/motivation).
- Can you tell me about something useful you learnt from a classmate in the group?
- Has reading other students’ posts helped you to learn English?
- Can you tell me about an online tool or a way of studying that you tried yourself after reading about it in the Facebook Group?
- Did anyone help in any other ways, such as through encouragement?
- Did your feelings about the Facebook Group change during the period we used it?
- Did being in the group make you feel like part of a community? Why/why not?
Let’s talk about my input via Facebook.

- I remember that in semester one you mentioned strangers calling you on Skype. After that I gave you information on changing your privacy settings. How did you feel about my comment?
- In semester two in assignment two I recommended you try to use Lyrics Training to work on your listening and vocabulary and Study Blue, a vocabulary app, to record vocabulary. How did you feel about this advice?
- Thinking about other comments I made in our class’s Facebook Group, can you tell me about a time that my comments helped you? (TOEFL website link? English Central?)
- Can you think of things that I did not do that would have helped?
- You didn’t join the Emiha Learning Group. Why not?
- You use Facebook privately in English. Can you tell me about your experience with it?

Discussing with Others

- Did you talk to any of your classmates about how you all learned English in the course?
- Did you talk to them about any online tools outside of class?

Motivation

- In the two questionnaires, you were asked about what motivated you to use online tools in English. What changed for you?
- The questionnaires also asked about things that make you NOT want to use online tools in English. In April, you did not indicate that doing homework was a problem, but you highlighted this in January. Please tell me about this.
- Can you tell me about how your feelings about studying English changed during the writing course?

Rounding Up

- By the way, you said in questionnaire one that you had a computer and smartphone but not a tablet. Has that changed? How often have you used each one in English since April?
- Finally, I’d like to talk about the people in your life who have been important in helping you develop your English skills. Can you give me an example of somebody who has helped you a lot and tell me how they helped you?
- Who do you think will be important in the next six months?
- Will you use online tools to keep in contact with any of these people? Will you communicate with them in English?
- If you were giving advice to a new student, what would you recommend?
- My last question - overall, how do you think online tools have helped and can help you learn English?
Appendix E: Sample of Guiding Questions for Interview Two

All interviewees were asked similar questions, with some tailored to their specific experiences. The notes below were used as a guide when conducting Hiromi’s interview. Parts that relate to her personal experiences (as ascertained through earlier forms of data collection) are underlined.

Studying English This Year

- Let’s start by talking about this year’s English classes. Do you use a computer room for any of the classes? How do you feel about that?
- Do you use online tools in class or for homework for any of your English classes? How do you feel about that?
- How about privately? Do you still use online tools in English?
- Think about a tool that you have continued using in English since [our writing course]. Why did you continue using it? What are the good points of that tool? And the bad points? (Repeat for more tools). You mentioned web-dictionaries in your third questionnaire. Tell me more about that.

Questionnaire Two and Three Follow Up

- In questionnaire two, you wrote that you planned to use the following tools this semester: Social networking sites Video sharing sites Web-based dictionaries Translation sites English self-study sites Apps
  However, you only used web-based dictionaries. Why didn’t you use them? (one by one, about the ones she didn’t use)
- I am interested in what encourages students to use online tools in English. Think about the tool that you liked the most in [our writing course]. What encouraged you to try it? Why did you stop using it?
- You wrote that web-based dictionaries were useful in improving your English. Why do you think they were useful for improving your English?
- Tell me about a tool that you thought you would continue to use but stopped using. (For her, this meant SNSs (Facebook)/online news sites/apps/Facebook groups/translation sites/self-study sites/apps).
- Do you want to use a tool more if it is easy to use? Please explain.
- If a tool is difficult to use, does that make you want to stop using it? Please explain.

Reflections on the Writing Course

- In [our writing course] you were asked to use online tools to work on personal English goals. Looking back, what do you think of your experiences in that course?
- Do you think that class changed your view of online tools? Please explain.
- Do you think including online tools in last year’s writing course was useful, or was it a waste of time?
- Did it help you in any way?
Did you do more self-study then or this semester? Why?
What type of self-study did you do most last year? Online or offline? How about this semester?
Do you think [our writing course] has influenced your independent learning practices? Please explain.

Reflections on Online Tools and Goals

How do you think online tools have contributed to your English development?
How effective have they been in helping you learn English?
In what ways could you use online tools to improve your English skills more?
What stops you from using them like that?
In [our writing course], what motivated you to use online tools in English by yourself?
What motivates you to use online tools in English by yourself now?
What made you not want to use them in English during [our writing course]?
What makes you not want to use them in English now?
What were your biggest English goals in the last six months?
Did you think about your English goals regularly, like you did in [our writing course]? Did you make plans and check your progress?
In questionnaire three, you indicated that one reason that you didn’t use online tools was that you had too much homework so didn’t have time for self-study. Do you think time in your English courses should be allocated for online study, like in [our writing course]?
How did online tools help you with your English goals during [our writing course]? How about after it?

Facebook

In [our writing course] you used Facebook regularly for the [English Reports]. How do you use it now? Do you use it in Japanese?
Do you communicate with anyone on Facebook? Do you read anyone’s posts? Whose?
And how about the Emiha Learning Group? Can you tell me about that?
Last time you said “I don’t think I’ll use the Emiha Learning Group much because it is hard to post there.” After [the writing course] you stopped reading too. Why?
Did your reasons for not commenting or posting change?

YouTube

You used YouTube last year too. Why did you stop using it?

Twitter

In the last interview, you also said you used Twitter to read English posts sometimes. Has this completely stopped? Why?

Community

I’d like to ask you about the people in your life who are important in helping you to develop your English skills. Last time you said [Kiyomi] was important for this. Did she help you with English in the last six months? Please explain.
You said you thought your teachers would be important too. Were they important in the last six months? Please explain.
• Who else has been important for your English development or helped you with it in the last six months?
### Appendix F: Overview of Tasks Added to the Writing Course Syllabus

#### Semester One

<table>
<thead>
<tr>
<th>Lessons 1-4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students were familiarised with core digital technologies used in [the writing course].</td>
</tr>
<tr>
<td>A private Facebook group (Emiha Learning Group) that was for students at Emiha University who wished to communicate in English was introduced. It had no connection to the course but some students joined.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Lessons 5-6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students discussed the Emiha Learning Group and other online tools that could be used to study English then completed English Reports One and Two for homework. Lesson six was cancelled so students were prompted via email to do English Report Two.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Lesson 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students discussed English Reports One and Two in class.</td>
</tr>
<tr>
<td>The teacher asked students to consider ways to share the English Reports online for out-of-class access. Online privacy issues and suitability of tools for the planned tasks (sharing and commenting on English Reports) were discussed. Students voted to use a private group on Facebook.</td>
</tr>
<tr>
<td>After class, the teacher set up a Facebook Group and sent a link via email instructing students to join, post their English Reports and return later to read and comment on their classmates’ posts.</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Lessons 8-9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students who had had trouble joining the Facebook Group or posting were helped in class.</td>
</tr>
<tr>
<td>For homework, students were instructed to read their classmates’ posts and choose a way of studying that they had not tried before then post a comment to the person who introduced the tool. Instructions: The comment should a) describe your experience using the tool b) explain how you felt it helped you to learn English and c) outline and problems you had with it.</td>
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</table>

<table>
<thead>
<tr>
<th>Lessons 10-11</th>
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</thead>
<tbody>
<tr>
<td>In lesson 10, students discussed the tools they had tried for homework</td>
</tr>
<tr>
<td>Lesson 9’s homework was reassigned as many students had not commented by lesson 10, and many of those who had commented by lesson 11 had only partially followed the instructions.</td>
</tr>
<tr>
<td>Those who had completed the assigned homework were encouraged to continue studying by using the same tool or a different one.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Lesson 12</th>
</tr>
</thead>
<tbody>
<tr>
<td>There was a competition in the Emiha Learning Group using the online game Lyrics Training. This was announced in class and students were encouraged to enter.</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Lesson 13 plus Make-Up Lesson</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two students were awarded prizes for the Lyrics Training competition in class and gave short speeches about their experiences of playing the game.</td>
</tr>
<tr>
<td>Students discussed other ways they could study outside of class.</td>
</tr>
<tr>
<td>The make-up lesson (due to the week six cancellation) was devoted to course-based tasks</td>
</tr>
</tbody>
</table>
**Lesson 14**
- Students did a comparative writing task in pairs. The textbook topic was altered to target computers and smartphones, with students thinking about their advantages and disadvantages as learning tools.
- Students discussed what they were going to do in the summer break. There was no required homework as the first and second semester subjects are graded separately. They were encouraged to write in their journals (part of their course materials), interact in either of the Facebook Groups, use tools that had been introduced during the semester, and find other ways to use English.

**Semester Two**

**Lesson 15**
- Class discussion about the ways online tools assist English language learners and their drawbacks (related to essay topic).
- Class discussion about goal setting, highlighting four steps: identifying goals, identify ways to reach them, taking action and reflecting.
- Students were shown English Report Three and class time was allocated to allow them to locate the template on the class website, write their report and upload it to Facebook.
- For homework, they were asked to carry out their learning plans, read as many posts as they could and comment on them. They were instructed to check back later in the week to read comments on their posts from the teacher and their classmates.

**Lesson 16**
- Lesson cancelled. Some students had not commented in the Facebook Group as instructed so a reminder was sent by email

**Lesson 17-18**
- Follow-up discussion on the ways online tools assist English language learners and their drawbacks. This led to a related discussion about protecting privacy online.
- Students did English Report Four in class in lesson 17. Some had not posted by lesson 18, so were reminded in class.
- For homework, students were instructed to reflect on their learning and carry out their new learning plans. They were also prompted to read and comment on classmates’ posts, and read and respond to comments on their own posts from the teacher and classmates.

**Lesson 19**
- Students completed English Report Five in class.
- Analysis of students’ English Reports showed goals set for the following period seemed to have been forgotten as they were replaced with new goals when reflecting back. It was noted that the first question of each English Report correlated with the last question of the previous one, so if their goals had changed since their last report, students were instructed to think about why they had changed and discuss this in groups.
- The homework was the same as lessons 17-18.

**Lessons 20-21**
- In lesson 20, time was allocated to catching up on English Report interactions. Students were asked to go back to the three English Reports they had posted in semester two and reply to the comments from me and their classmates.
• In lesson 21, students completed English Report Six in class.
  • The homework was the same as lessons 17-18.

**Lessons 22-23**

• Lesson 22 was solely devoted to key course content.
• In lesson 23, students completed English Report Seven in class.
• The homework was the same as lessons 17-18.

**Lessons 24-25**

• In lesson 24, the teacher praised students’ efforts to develop their English skills outside of class, and put them into groups to discuss the improvements they had made since starting university. They were also directed to discuss the benefits of interacting in the Facebook Group to learn from and support each other.
• In lesson 25, students completed English Report Eight in class.
• The homework was the same as lessons 17-18.

**Make Up Lesson and Lesson 26**

• The make-up lesson (due to week 16 cancellation) was devoted to course-based tasks.
• In lesson 26, there was a short demonstration on how to use the online tool English Central, which had been offered to the English Department for a trial, and after the lesson, further instructions were posted in the class’s Facebook Group.

**Lesson 27**

• Students completed English Report Nine, which had two extra questions, in class. Students who finished early were asked to read other students’ posts and comment on them, and reply to comments on their own posts.
• For homework, they were asked to read and comment on their classmates’ posts and to reply to all of the comments that I had made on their posts.

**Lesson 28**

• This lesson was devoted to core course content. In end-of-course closing remarks, students were encouraged to continue working towards their English language learning goals by planning, acting and reflecting, and to keep using digital technology to further develop their English skills.
Appendix G: Raw Data for Figures and Tables with Incomplete Response Items

Raw data are provided to support figures and tables that draw on partially incomplete data sets. This is done to facilitate deeper understanding of the data and allow greater transparency. To avoid confusion with earlier numbering systems, all tables in this section begin with the term “Appendix Table” (reduced to “Ap. Table” in the Table of Contents). Raw data are provided for one table and eight figures that were included in the main body of this thesis, as shown below:

Figure 4.2: Appendix Table 1
Figure 4.3: Appendix Table 1
Figure 5.5: Appendix Table 2 and Appendix Table 3
Figure 6.1: Appendix Table 3 and Appendix Table 4
Figure 6.2: Appendix Table 2 and Appendix Table 4
Table 6.1: Appendix Table 4 and Appendix Table 5
Figure 7.1: Appendix Table 6
Figure 7.3: Appendix Table 7
Figure 7.4: Appendix Table 8
Appendix Table 1. Pre-Course Use of Online Tools in L1 and English (First-Year English Department Students, n=125-128)

<table>
<thead>
<tr>
<th>Pre-Course Data</th>
<th>Video sharing sites</th>
<th>Translation sites</th>
<th>Search engines sites</th>
<th>Social networking sites</th>
<th>Online dictionaries</th>
<th>Apps</th>
<th>Email/chat (computer)</th>
<th>Wikis</th>
<th>Email/chat (smartphone)</th>
<th>News sites</th>
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</table>

Note: “Used in L1 (total)” was calculated by adding “used in L1 only” and “used in L1 and English” and “used in English (total)” was calculated by adding “used in English only” and “used in L1 and English”.

284
## Appendix Table 2. Pre-Course Use of Online Tools in L1 and English (Longitudinal Case Study Participants, n =22)

<table>
<thead>
<tr>
<th>Pre-Course Data</th>
<th>Video sharing sites</th>
<th>Translation sites</th>
<th>Social networking sites</th>
<th>Apps</th>
<th>Online dictionaries</th>
<th>Email/chat (computer)</th>
<th>Wikis</th>
<th>Email/chat (smartphone)</th>
<th>Audio call tools</th>
<th>Search engines</th>
<th>English self-study sites</th>
<th>Games</th>
<th>Podcasts</th>
<th>News sites</th>
<th>Blogs</th>
<th>Video call tools</th>
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<tr>
<td>Valid Responses</td>
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Note: “Used in English (total)” was calculated by adding “used in English only” and “used in L1 and English”.

285
## Appendix Table 3. End-of-Course Experiences Using Online Tools in English (Longitudinal Case Study Participants, n = 19-22)

<table>
<thead>
<tr>
<th>End-of-Course Data</th>
<th>Social networking sites</th>
<th>Video sharing sites</th>
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<th>Online dictionaries</th>
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<tbody>
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</tbody>
</table>

Note: “Used in English (total) was calculated by adding “English use in class or for homework”, “English use privately” and “English use in class/or homework and privately”.

286
Appendix Table 4. Post-Course Experiences Using Online Tools in English (Longitudinal Case Study Participants, n =20-22)

<table>
<thead>
<tr>
<th>Post-Course Data</th>
<th>Video sharing sites</th>
<th>Social networking sites</th>
<th>Online dictionaries</th>
<th>Search engines</th>
<th>Translation sites</th>
<th>Wikis</th>
<th>Apps</th>
<th>Email/chat (smartphone)</th>
<th>News sites</th>
<th>English self-study sites</th>
<th>Audio call tools</th>
<th>Email/chat (computer)</th>
<th>Games</th>
<th>Podcasts</th>
<th>Blogs</th>
<th>Video call tools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid Responses</td>
<td>21</td>
<td>22</td>
<td>22</td>
<td>21</td>
<td>22</td>
<td>21</td>
<td>22</td>
<td>21</td>
<td>20</td>
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<td>8</td>
<td>9</td>
<td>10</td>
<td>11</td>
<td>12</td>
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<tr>
<td>English use in class or for homework</td>
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<td>8</td>
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<td>7</td>
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<td>3</td>
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<tr>
<td>English use privately</td>
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<td>1</td>
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<td>3</td>
<td>4</td>
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<td>3</td>
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<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>English use in class/for homework and privately</td>
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<td>5</td>
<td>5</td>
<td>5</td>
<td>3</td>
<td>2</td>
<td>2</td>
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<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Used in English (total)</td>
<td>16</td>
<td>15</td>
<td>14</td>
<td>12</td>
<td>12</td>
<td>11</td>
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<td>7</td>
<td>5</td>
<td>5</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Used in English (%)</td>
<td>76%</td>
<td>68%</td>
<td>64%</td>
<td>57%</td>
<td>55%</td>
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<td>32%</td>
<td>24%</td>
<td>24%</td>
<td>15%</td>
<td>10%</td>
<td>10%</td>
<td>5%</td>
</tr>
</tbody>
</table>

Note: “Used in English (total) was calculated by adding “English use in class or for homework”, “English use privately” and “English use in class/for homework and privately”.
Appendix Table 5. End-of-Course Intentions to Use Online Tools for Future English Study (Longitudinal Case Study Participants, n = 22)

<table>
<thead>
<tr>
<th>End-of-Course Intentions for Future English Study</th>
<th>Video sharing sites</th>
<th>Social networking sites</th>
<th>Online dictionaries</th>
<th>News sites</th>
<th>English self-study sites</th>
<th>Search engines</th>
<th>Translation sites</th>
<th>Apps</th>
<th>Wikis</th>
<th>Email/chat (smartphone)</th>
<th>Email/chat (computer)</th>
<th>Audio call tools</th>
<th>Games</th>
<th>Video call tools</th>
<th>Podcasts</th>
<th>Blogs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid Responses</td>
<td>22</td>
<td>22</td>
<td>22</td>
<td>22</td>
<td>22</td>
<td>22</td>
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<tr>
<td>No intended use for English study</td>
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<td>2</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>5</td>
<td>8</td>
<td>8</td>
<td>10</td>
<td>12</td>
<td>13</td>
<td>13</td>
<td>14</td>
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<td>Intended use English study</td>
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<td>Intended use for English study (%)</td>
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<td>91%</td>
<td>86%</td>
<td>86%</td>
<td>82%</td>
<td>77%</td>
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<td>64%</td>
<td>55%</td>
<td>46%</td>
<td>41%</td>
<td>41%</td>
<td>37%</td>
<td>18%</td>
<td></td>
</tr>
</tbody>
</table>

Total (n = 22)
Appendix Table 6. Factors that Motivate Students to Use Online Tools in English (First-Year English Department Students, n=120-123)

<table>
<thead>
<tr>
<th>Pre-Course Data</th>
<th>Enjoy doing hobbies</th>
<th>Improve oral communication skills</th>
<th>Learn new vocabulary</th>
<th>Access new information</th>
<th>Get high English grades</th>
<th>Write better essays</th>
<th>Improve grammar</th>
<th>Do well on tests</th>
<th>Follow teacher’s advice</th>
<th>Keep in touch with foreign people</th>
<th>Follow classmates’ advice</th>
<th>Communicate with teachers/classmates</th>
<th>Make new friends</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid Responses</td>
<td>122</td>
<td>123</td>
<td>123</td>
<td>121</td>
<td>121</td>
<td>120</td>
<td>123</td>
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<td>121</td>
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<td>120</td>
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<td>71</td>
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<td>102</td>
<td>100</td>
<td>81</td>
<td>76</td>
<td>67</td>
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<td>Yes (%)</td>
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<td>81%</td>
<td>67%</td>
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<td>55%</td>
<td>54%</td>
<td>53%</td>
<td>52%</td>
<td>50%</td>
<td>41%</td>
<td>35%</td>
<td>35%</td>
</tr>
</tbody>
</table>
Appendix Table 7. Pre-Course, End-of-Course and Post-Course Comparison of Social Factors that Motivated Students to Use Online Tools in English (Longitudinal Case Study Participants, n = 21-22)

<table>
<thead>
<tr>
<th></th>
<th>Follow teachers’ advice</th>
<th>Follow classmates’ advice</th>
<th>Communicate with teachers/classmates</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pre-course valid responses</strong></td>
<td>22</td>
<td>22</td>
<td>22</td>
</tr>
<tr>
<td><strong>Pre-course: missing/invalid</strong></td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Pre-course: no</strong></td>
<td>12</td>
<td>13</td>
<td>12</td>
</tr>
<tr>
<td><strong>Pre-course: yes</strong></td>
<td>10</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td><strong>End-of-course valid responses</strong></td>
<td>22</td>
<td>22</td>
<td>22</td>
</tr>
<tr>
<td><strong>End-of-course: missing/invalid</strong></td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>End-of-course: no</strong></td>
<td>6</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td><strong>End-of-course: yes</strong></td>
<td>16</td>
<td>14</td>
<td>12</td>
</tr>
<tr>
<td><strong>Post-course valid responses</strong></td>
<td>22</td>
<td>21</td>
<td>22</td>
</tr>
<tr>
<td><strong>Post-course: missing/invalid</strong></td>
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<td>1</td>
<td>0</td>
</tr>
<tr>
<td><strong>Post-course: no</strong></td>
<td>14</td>
<td>16</td>
<td>18</td>
</tr>
<tr>
<td><strong>Post-course: yes</strong></td>
<td>8</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td><strong>Pre-course: yes in %</strong></td>
<td>46%</td>
<td>41%</td>
<td>46%</td>
</tr>
<tr>
<td><strong>End-of-course: yes in %</strong></td>
<td>73%</td>
<td>64%</td>
<td>55%</td>
</tr>
<tr>
<td><strong>Post-course: yes in %</strong></td>
<td>36%</td>
<td>24%</td>
<td>18%</td>
</tr>
</tbody>
</table>
### Appendix Table 8. Factors that Deter Students from Using Online Tools in English (First-Year English Department Students, n=119-122)

<table>
<thead>
<tr>
<th>Pre-Course Data</th>
<th>Worried about privacy</th>
<th>Don't want personal information online</th>
<th>No confident using online tools</th>
<th>No English speakers to use them with</th>
<th>Don't know how to use online tools</th>
<th>Too expensive</th>
<th>Too much homework so not enough time</th>
<th>Only want to do graded homework</th>
<th>Internet access at home</th>
<th>No computer/tablet</th>
<th>No smartphone</th>
<th>Online tools are useful for improving English skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid Responses</td>
<td>119</td>
<td>118</td>
<td>122</td>
<td>120</td>
<td>121</td>
<td>119</td>
<td>119</td>
<td>119</td>
<td>119</td>
<td>119</td>
<td>119</td>
<td>119</td>
</tr>
<tr>
<td>Missing/invalid</td>
<td>9</td>
<td>10</td>
<td>6</td>
<td>8</td>
<td>7</td>
<td>9</td>
<td>9</td>
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<tr>
<td>No</td>
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<td>Yes</td>
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<td>48</td>
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<td>12</td>
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<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Yes (%)</td>
<td>49%</td>
<td>48%</td>
<td>39%</td>
<td>26%</td>
<td>63%</td>
<td>14%</td>
<td>10%</td>
<td>5%</td>
<td>3%</td>
<td>3%</td>
<td>3%</td>
<td>3%</td>
</tr>
</tbody>
</table>
Appendix II: Long Interview Excerpts

This section provides lengthier excerpts of interviews than was possible in the body of the thesis to allow readers to understand the flow of the interviews more and access a rawer form of data. The first excerpt is from an interview that was conducted primarily in English and the second is from one conducted primarily in Japanese. Translated sections are underlined.

Interview Excerpt One: Chika (Mainly English)

Louise: I’d like you to think about the first day of our writing course and compare it with now. Do you think of online tools differently now?

Chika: Differently?

Louise: Yeah.

Chika: Online tool differently?

Louise: Yeah, has your or image or opinion or thoughts about online tools, has it changed from last April until now, or is it the same?

Chika: Yes, I like online tools study because it is I can study anytime, anywhere, so I think it is very useful.

Louise: Is that a new feeling? Did you feel like that in April? Have your feelings changed since April?

Chika: At first in April I thought it was difficult to use many online tools but I changed my mind.

Louise: Has our writing course changed the way that you think about using online tools to study English?

Chika: Yes, many friends introduced many online application and it’s really, it make me feel like studying more, using application.
Louise: Did you use online tools in English in other classes at university?

Chika: Other class? Maybe no.

Louise: If you didn’t join [the writing] class, do you think your ideas about online tools would have changed?

Chika: Maybe because of [the writing] class I could find many useful application and also we use Facebook and [English Reports]. I enjoyed it and every week I was looking forward to seeing other students using online tools so...

Louise: How effective do you think online tools are for helping you to learn English?

Chika: Effective?

Louise: Were they effective?

Chika: Effective.

Louise: Yeah, effective? Can you explain why?

Chika: I can practice listening skills or English expressions.

Louise: Has being in our course changed the way that you study?

Chika: [Our course]… for I used computer and I wrote something in English is first time for me so [our] class was for me [the] most worthwhile class.

Louise: Since April, what has limited your use of online tools for English self-study?

Chika: Limited?

Louise: Yeah.

Chika: [She reads the question] Hmmm… Something which was a reason for limitation….

Louise: For example, is it lack of time or concerns about privacy, or feeling shy to write in them, or those kinds of things?

Chika: Online tools… I often use smartphone to study English online but いゆでん in English?

Louise: So your battery goes flat?
Chika: Yes, if batteries are always full I have more enjoyed it.

Louise: So sometimes did you want to study on the train but your battery was flat?

Chika: Yes.

Louise: That never happens with a textbook right?

Chika: Yes. [Both laugh]

Louise: Maybe it's a weak point of online tools.

Chika: Yes.

Louise: You said in Questionnaire Two that you think you will use these tools [shows the questionnaire] all of these tools to study in the next six months, to study English. Why did you choose these tools?

Chika: SNS I can connect with foreigners and my Japanese friend who want to improve English skills, so, and blog, I don’t often see it but, and YouTube, I like South Park

Louise: South Park?

Chika: Yeah, and last night, was recently last night, I watched South Park on YouTube. Yes. And online news site… and, I think I have to learn more about social … Something like social situation [pronounced jyousei]

Louise: Woman [pronounced jyousei]?

Chika: I’d like to know about society more, so I read articles in these news sites.

Louise: Ah, BBC, CNN, that kind of thing?

Chika: Yes.

Louise: You could get that information from Japanese news sites so why have you chosen to check the news in English?

Chika: In the future I wanted to work with using English so I think if I study now about it, it will be useful in the future.
Louise: You’ve chosen some tools for speaking too like Skype, LINE, etc, some online discussion tools, which ones do you think you will use?

Chika: Skype.

Louise: Who can you use Skype with?

Chika: Actually I've never used Skype but in spring holiday my friends and I are going to go foreign countries so we want to connect with Skype in English.

Louise: Let’s look at your final assignment. You said, “I want to build up vocabulary more, and communicate with foreigners more naturally. During spring vacation, I plan to travel to Southeast Asia, so I want to improve English skills more.” Yeah? Why did you choose these goals?

Chika: I always think I have to build up more English vocabulary so, and…

Louise: Why do you need more vocabulary?

Chika: To communicate with foreigner more naturally, I have to learn more daily use English expressions or vocabulary.

Louise: You said you will use English Central to improve, to work on these goals. How will you use English Central... to build vocabulary, for example?

Chika: I use English Central with computer and English Central have vocabulary test and I practice it many times.

Interview Excerpt Two: Hiromi (Mainly Japanese: Translations Underlined)

Louise: I want to ask about posts from your classmates that made an impression on you.

Hiromi: Impression… About Mikan, that I mentioned just now.

Louise: What did you hear about Mikan that made you think "Oh, that's interesting!"?
Hiromi: The post said it was easy to study English vocabulary. I didn’t know about it before that. I checked it, and I felt it was suitable for Japanese people, and it was an app, so I thought it was good.

Louise: So could you search it just by knowing its name?

Hiromi: Yes.

Louise: You saw that app’s name, and searched for it

Hiromi: Then download it

Louise: And it looked good so you downloaded it and used it.

Hiromi: Yes, yes.

Louise: Are you still using it now?

Hiromi: I used it at first, but I gradually stopped using it.

Louise: Why?

Hiromi: I couldn’t be bothered using it.

Louise: Which was bothersome about it?

Hiromi: I used it on my smartphone on the train, but I became tired.

Louise: You got tired of studying, not the app itself?

Hiromi: Yes, that’s right. [Hiromi laughs].

Louise: The exams were coming, and you also had to do homework.

Hiromi: I thought that was enough.

Louise: By the way, how long does it take by train to come to school?

Hiromi: Only the train part?

Louise: Yes

Hiromi: How long…? I transfer… It takes about one hour and twenty minutes.

Louise: One hour and twenty minutes?

Hiromi: Yes, by train.

Louise: Wow, that’s a long time. [Both laugh]
Hiromi: But, I had nothing to do.
Louise: So it takes two hours and a half a day.
Hiromi: Yes.
Louise: Amazing.
Hiromi: [Hiromi laughs] But there are some students who come from further places.
Louise: I know, but that’s tough, isn’t it? How did Mikan help you?
Hiromi: When I was in high school, I memorized many words to take the university entrance examinations, but I forgot them because I didn’t study much from April. Mikan helped me to remember the words I had forgotten.
Louise: Thinking about other students’ posts, how do you think reading helped you to learn English, reading their posts?
Hiromi: …
Louise: How did reading other student’s posts help you to improve your English skills?
Hiromi: Someone said that Mikan was easy to use, and that was useful for me. There were other posts about studying for Eiken but I won’t take that exam so they were not so relevant. There were quite a lot like that, with ones for TOEIC too. I just read them, and thought, “Oh yeah”, but I didn’t want to try them.
Louise: So, if there were any posts related to your goal and seemed like they’d be useful for it, you might be interested, right?
Hiromi: Yes, maybe.
Louise: Did anyone help you in other ways, like, for example, encouragement?
Hiromi: Anyone? No, not especially.
Louise: For example, someone read your post said “good” or made some encouraging comment, and those comments lifted up your motivation. Did anything like that happen? Or not really?
Hiromi: When I posted about studying idioms on YouTube, many classmates asked me about that site. So I felt “Ahh…” then.

Louise: What do you mean by “Ahh…”?

Hiromi: Ahhh, they were interested in it.

Louise: You were pleased.

Hiromi: Yes. [Hiromi laughs]

Louise: So did that pleasant feeling motivate you?

Hiromi: Yes.

Louise: So you were motivated more then?

Hiromi: Yes.

Louise: You were? Did being in the group, in the Facebook group in our class, did that make you feel like you were part of a community?

Hiromi: Was it a good community?

Louise: Did you feel you were a member of a community?

Hiromi: Ah yes. Only when we had the homework, everyone wrote the posts, and I read them and commented on them. It was useful.

Louise: What was the good point about being in the community?

Hiromi: If we didn’t have that community, I might not have regarded the students in my class as “classmates”. I don’t think I would have felt like we were a class who had studied together for a year. After we made the [Facebook] group, I felt like they were my classmates. They commented on my posts, and I don’t know whether I changed because of those comments, but when someone commented I was pleased.

Louise: Did it help you to build relationships, stronger relationships with classmates?

Hiromi: I don’t know all of their faces, but I felt like we were a class.
Louise: Yes, you all sat in the same seats every time. I said every seat was available many times over. [Both laugh]. Everyone liked their own seat, and sat in the same place, so they couldn’t really communicate with all other classmates.

Hiromi: That’s right. I remembered only some students around my seat, and when we read the journals we made groups. I only spoke to people in that group. If that group didn’t exist, I would have had even less communication [with my classmates].
Appendix I: Interview Coding Samples

This appendix has three sections: examples of initial open coding, identification of knowledge claims and refinement of knowledge claims. These are short extracts from documents that were thousands of words in length and are provided to illuminate steps in the coding process.

Part A: Initial Open Coding

Extract One

Louise: Why is it not difficult now?
Emir: Because I tried many times, then I [got] used to post[ing].
Louise: Do you think the Facebook Group helped you to learn English?
Emir: Yes.
Louise: How?
Emir: To do comment is very useful practice for me. Because they are my friends so it is easy to comment, but writing English is little difficult.
Louise: How about what you read? Have you been able to learn through the group from reading posts and comments?
Emir: Yes. How?
Louise: Yes, how? Or what have you learnt from classmates’ posts and comments?
Emir: [laughs] I can know my friend, what the tool to use to learn the English so if I think that that tool is good, I can try that tool.
Emir: Can you tell me about a post that you read that was by another student?
Louise: When you read it, why did you decided to try to use it?
Emir: I didn’t decided to use it soon, but maybe I think some student posted so I decided.
Louise: So when more students agreed it was a good tool, you thought; “Oh, maybe I should use it too.” Yeah, I see.
Emir: Yes.
Louise: Has reading other students’ posts helped you learn English overall do you think?
Emir: Yes.
Louise: Was reading their posts mainly helpful because of the information, or because of the reading practice, or both?
Emir: Both.

Extract Two

Emir: I think when I was high school student the English education is very passive, but now it is not passive and more fun, and I can find the best way to study English and, yes…
Louise: What made you look for new ways to study that were different to your ways in high school? Why did you decide to try new ways?
Emir: Because when I was junior high school student I hated[d] English.
Louise: Oh really?
Emir: Yes. But, after graduated and I met my English teacher when in the high school and she told me a lot of things that different from junior high school and it is more attractive for me, and then I began to interested in study English, so that is the reason that I started more often to try to improve my English.
Louise: What made you start to use different ways?
Emir: A big reason is [our writing course]. I think so.
Louise: Why?
Emir: I don’t have ideas to use online tools, but teacher recommended me so I tried.
Louise: Since April, what has limited your use of online tools for English self-study?
Emir: My English skill.
Louise: Really?
Emir: Yes
Louise: Yeah? Why?
Emir: Because I’m not at English so much
Louise: Not at English?
Emir: Yeah, speaking and writing.
Louise: Not good at English?
Emir: Yes.
Louise: So how does that stop you from studying with online tools?
Emir: In online tool everyone can watch my homework or post so I’m nervous.
Part B: Identifying Knowledge Claims

Convenience

*Louise: How effective do you think online tools are for helping you to learn English? Emiri: It don’t depend on the time, so I can use anywhere, and it is useful for me.
Louise: So, by it doesn’t depend on the time, do you mean you can use them 24/7, they’re available anytime? Is that what you mean? Can you explain the part that you said, “it don’t depend on the time”? Emiri: When I on the train I can use smart phone so I am able to connect with people on SNS. So it is good.

*Louise: So how did you feel about me asking for students to use online tools? What did you think about that homework? Chika: I have that time while because I took a train for long time every day to come to [university name] so it is a good opportunity to take, to study on the train with using online tools so I think it was good. **She spends 3 hours on trains each day**

*Chika: Yes, I like online tools study because it is I can study anytime, anywhere, so I think it is very useful.

*Stimika: (about lack of access to a useful online tool) I thought this is hard for us because the time we can use the CALL room for these tools, but for example, Monday and Tuesday is third class, but I can’t go because part-time job [Louise part-time job] yes, time or time I can go is very short. For example, lunch time, so I feel this is hard.

*Stimika: I think applications’ good point is wherever or whenever we and we can use free, freely, so I think we are when I’m not busy.

Part C: Refining Knowledge Claims (Key Areas Identified)

1) Accessibility: The Accessibility of Technology is Important
   a) Convenient (Time/Place esp. train) b) Inconvenient (Time/Place) c) Easy/Difficult
2) The Importance of Enjoyment
3) The Value of Online Communities
4) The Role of Social Connections in Tool Use
5) Different Social Relationships, Different Outcomes
6) The Importance of Teacher Support
7) Task Length Matters
8) Tools as a Window to English
9) The Lure of Opportunities to Communicative
10) Using Tools as a Last Resort
11) Participation Barriers: Shyness, Fear of Negative Evaluations by Others and Privacy Concerns
12) Key Problems with Tools: Unreliable/Distracting
13) Tool Saturation

A section on “accessibility” is presented for illustrative purposes.

Accessibility: The Accessibility of Technology is Important

Convenient (Time/Place esp. Train)

Louise: How effective do you think online tools are for helping you to learn English? Emiri: It don’t depend on the time, so I can use anywhere, and it is useful for me. Louise: So, by it doesn’t depend on the time, do you mean you can use them 24/7, they’re available anytime? Is that what you mean? Can you explain the part that you said, “it don’t depend on the time”? Emiri: When I on the train I can use smart phone so I am able to connect with people on SNS. So, it is good.

Louise: So how did you feel about me asking for students to use online tools? What did you think about that homework? Chika: I have that time while because I took a train for long time every day to come to [university name] so it is a good opportunity to take, to study on the train with using online tools so I think it was good. **She spends 3 hours on trains each day**
Chika: Yes, I like online tools study because it is I can study anytime, anywhere, so I think it is very useful.

Chika: I think study English at the end of the day is motivate for tomorrow and I think studying something before going to bed is good for memorising and when I get on the train I seldom sleep on the train so I feel boring so it was very good timing to use TED.

Emiri: I can check online tools and reply to posts whenever I like but in class, the lesson is held at a set time and, for example, I may be able to hear one student’s opinion but not the others’. With online tools, I can hear more opinions from more classmates.

Kiyomi: I wasted my time. I didn't use my travel time because I didn't think it was a waste of time to not use it. But then I thought it was valuable to study with online tools when [on public transport]. So, I do that now.

Kiyomi: I read the posts on the train, or when I'm on the move, or when I am free.

Kiyomi: Speed Learning is useful for me to study English effectively because all I have to do is listen. I can do it when I am tired, or on a train, or have nothing else to do.

Shizuka: Ah, so I explain these applications easy to use point. Mikan is I can use this application and I can study word whenever I have a cell phone.

Shizuka: I think applications’ good point is wherever or whenever use and we can use free, freely, so I think we use when I'm not busy.

Hiromi: And also, web dictionaries were useful because I could check with my cell phone in no time when I had some words I didn’t know.

Louise: How effective do you think online tools are for helping you to learn English? Emiri: It don’t depend on the time, so I can use anywhere, and it is useful for me.

Inconvenient (Time/Place)

Shizuka (about lack of access to a useful online tool): I thought this is hard for us because the time we can use the CALL room for these tool, but for example, Monday and Tuesday is third class, but I can't go because part-time job [Louise: part-time job] yes, so time or time I can go is very short. For example, lunch time, so I feel this is hard.

Louise: And when you used it, how long did you spend, for one session? About, just about?

Kiyomi: About 2 hours.

Louise: Oh! [both laugh] You were hooked on it, I see. And you said that you're not using it now. So, when did you stop using it regularly?

Kiyomi: I don’t have enough time, and I can do it only at home because it is best suited to a computer.

Kiyomi: I didn’t have enough time, and I didn’t have my own computer. So, equipment issues.

Louise: You didn't have a computer?
Kiyomi: I shared the computer with my family, as I didn’t have my own one. I had to ask them to use it.

Louise: What were the weak points of Lyrics Training for you?
Kiyomi: I have to use it on a computer.

Hiromi: Before… It’s the same as I said before, but I used to think the best way of studying was with paper, by writing, and that it was inconvenient to study with online tools, but my classmates found different ways to study, different online tools, ones that were easy to use. I thought to myself, “Oh, there are some really useful tools available.” So, I changed my way of thinking completely. And then, I thought English apps and other tools were easy to understand.

Louise: Do you use [the Emiha Learning Group] less than last year?
Hiromi: Ah yes.
Louise: Yes? Why do you use it less?
Hiromi: I’ve already finished [the writing course] so I’m no longer in a situation in which I have to check Facebook frequently. I feel like it’s ok to just check now and then.

Easy/Difficult

Hiromi: I also use Google translation once in a while. I used it because it was recommended, and I felt it was easy to use.

Louise: I’d like to know about a tool that you didn’t use very much. Maybe something you tried but then thought “Ah, no thank you”.
Hiromi: It is word book application and I installed, but… this application’s explanation is all English and how to make a word book is not clear so I thought it is [not] useful so I became to not use it.
Louise: Was that Study Blue?
Hiromi: Yes.
Louise: So, the information about Study Blue and inside the app is all English. Did that make it difficult to understand how to use?
Hiromi: Yes, and in this application maybe some style of test and I didn’t understand it well.

Hiromi: At first I know [Emiha Learning] Group, I didn’t understand well and… Now I am in [the writing course] Facebook group so I thought I don’t have to join it and I didn’t ask to friends, so I didn’t entered it.

Louise: And what if it is difficult to use? If a tool is difficult to use, do you want to use it less?
Hiromi: Yes.
Louise: Why?
Hiromi: Maybe to build up English skills, so I use online tool, but [if an] online tool is difficult to use it's takes many time to understand application system, it is not good.
Louise: You didn't list any tools as difficult this time. Does that mean after [the writing course] no tools that you tried were difficult?
Hiromi: Yes. Last year I installed some application. Some of these, there are difficult application to use but I didn't, after I think this is difficult application, I didn't use it. This was the last time to use these, so now I don't use difficult application.
Hiromi: I don’t use Facebook to English learning.
Louise: I see, why not?
Hiromi: Because I don't know to use Facebook for English study. I am joining [Emiha Learning] Group but I don't know what I write for university student so I haven't write.

Louise: If a tool is difficult to use, does that make you want to stop using it?
Kiyomi: Yes.
Louise: Why?
Kiyomi: There are other things available, so I think I’d use them.

Louise: If there were the two tools, one was a little difficult, one was a little easy, which would you choose?
Kiyomi: First I’d use the easy one, and when I got used to it I would use the difficult one to challenge myself.
Louise: If one tool was easy to use, but didn't really help with your goals so much, and one was more difficult to use, but more helpful for your goals, which would you use?
Kiyomi: I would use the easy one.
Louise: Why?
Kiyomi: Because I would get sick of if I used the difficult one first. So, I would begin to use the easy one, and gradually shift to the difficult one.
Appendix J: Coding for Narrative Construction

The comments on the right are in the order they appeared in the interview (for the most part), not the order of the narratives.

<table>
<thead>
<tr>
<th>Narrative - based on the first interview with some other data (mainly English Reports) intertwined when I could make an easy link</th>
<th>Copied from comment tabs in Emiri3 Transcript file. Return there for full quotes</th>
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<tbody>
<tr>
<td>Pre-university</td>
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| Before commencing her university studies, Emiri’s exposure to English mainly came from her junior high school and high school lessons. When asked about her experiences she said “I studied English only about textbook, so I haven’t any chances to use English with native speaker or any friend, so it is little boring time.” Although she had some contact with English teachers from abroad at school, she said she had “no chances to communicate with he or she” outside of class. Her classes were textbook-based, and for homework she would “just study for the class. So, for example, write down the text’s sentences, or do the worksheet.” With these two tools, she would do activities such as translating text from Japanese to English. She said she did not do any self-study, explaining that “completely there is no English time for me [because…] when I was high school student I didn’t interested in English so much.” Despite this self-proclaimed lack of interest in studying English, she did occasionally use it outside of class. One way she used it was to watch YouTube videos, which she did to entertain herself. She mentioned that she sometimes did it as a school-based task, but that most of the time it was private use, done on a monthly basis. She also exchanged messages with a foreign friend via email, but did this less frequently. While she said she used the Internet to check words that she did not know when completing homework tasks, it seems that the potential it offered as a study tool was largely unexplored. | Textbook as the main pre-university tool  
E/J teachers but no English outside of class  
Pre-university homework tool – worksheets and textbooks  
Pre-university – no (regular) self-study  
Pre-university – watched YouTube clips for pleasure  
Used the Internet to check words in the textbook.  
Email for pleasure. |
| Tools: Computer |
| Before starting university, Emiri’s computer skills were underdeveloped. This led to her feeling disconcerted upon discovering that her writing course was in a computer room. She said “I’m not good at computers so first I’m confused about use computer.” She elaborated on this by explaining that she felt “Nervous, because, I haven’t experience to type, and I haven’t confidence to use computers.” Although she took IT classes in her secondary schooling, she only used computers in those classes, so had no experience of using them for other educational pursuits. | Tools: Computer  
Computer as a tool – difficult to use but useful  
Computer as a tool - lacked confidence and typing skill |
When Emiri was asked in Questionnaire One which online tools she would like to use in the writing course she chose Google. This, she explains, was because “I thought Google is the most biggest network in the world so I thought Google is the best online tool to use English”. She did not choose it for the opportunities it would offer her, instead selecting it because it was well-known. With no confidence in her knowledge of the digital technology that was available, she opted for a tool that had been chosen by millions of others. A similar pattern emerged two months later, the first time she was asked to select some online tools for self-study. At that time, she chose Facebook and Skype because they were “famous application.” She went on to explain that “I had image that Facebook is a lot of people around the world joined it so it is good way to use English so I chose the Facebook.” Skype, was chosen for its familiarity, as she had “experience to use the Skype before, so I used.” When explaining why these tools were chosen, there is no mention of specific language-based goals, not evaluation of how the tools could help her to work on skills that she would like to target. A likely reason for this was hinted at when she explained how being asked to use online tools in her writing course made her feel. She said she was interested in it but “there were so many things that I didn't know about. I felt uneasy” [italics: translated]. Choosing well-known, familiar tools would have gone some way in easing her discomfort.

In addition to the unease caused by her lack of knowledge, Emiri also initially viewed the Internet with trepidation due to perceived hidden dangers, noting: “Before I used Facebook or any other online tool, I have image that online tool is a little risk to communicate with people because they are so many people’s, so the dangerous of fraud” [italics: translated]. However, these feelings dissipated during the writing course, perhaps to the point of her reaching a false sense of online security, as in the post-course interview she said “Now, I’ve founded that there are no dangerouses, almost.”

During the 10 months of the writing course, Emiri’s use of English online increased dramatically, going from monthly, to at least weekly on a smartphone and computer. To give a concrete example of how her private online practices increased, she watched YouTube about once a month before starting university, but by the end of the writing course she did this at least twice a week.

<table>
<thead>
<tr>
<th>Tools: Online tools in general</th>
<th>Online tools as tools – interested but worried as there were so many things that she didn't know about them</th>
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<td><strong>When Emiri was asked in Questionnaire One which online tools she would like to use in the writing course she chose Google. This, she explains, was because “I thought Google is the most biggest network in the world so I thought Google is the best online tool to use English”</strong></td>
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<td>She did not choose it for the opportunities it would offer her, instead selecting it because it was well-known. With no confidence in her knowledge of the digital technology that was available, she opted for a tool that had been chosen by millions of others. A similar pattern emerged two months later, the first time she was asked to select some online tools for self-study. At that time, she chose Facebook and Skype because they were “famous application.” She went on to explain that “I had image that Facebook is a lot of people around the world joined it so it is good way to use English so I chose the Facebook.” Skype, was chosen for its familiarity, as she had “experience to use the Skype before, so I used.” When explaining why these tools were chosen, there is no mention of specific language-based goals, not evaluation of how the tools could help her to work on skills that she would like to target. A likely reason for this was hinted at when she explained how being asked to use online tools in her writing course made her feel. She said she was interested in it but “there were so many things that I didn't know about. I felt uneasy” [italics: translated]. Choosing well-known, familiar tools would have gone some way in easing her discomfort.</td>
<td><strong>Internet safety – she was worried about being tricked online before she started using online tools at university</strong></td>
</tr>
<tr>
<td>In addition to the unease caused by her lack of knowledge, Emiri also initially viewed the Internet with trepidation due to perceived hidden dangers, noting: “Before I used Facebook or any other online tool, I have image that online tool is a little risk to communicate with people because they are so many people’s, so the dangerous of fraud” [italics: translated]. However, these feelings dissipated during the writing course, perhaps to the point of her reaching a false sense of online security, as in the post-course interview she said “Now, I’ve founded that there are no dangerouses, almost.”</td>
<td><strong>Benefits of online tools – they can be used anytime, anywhere</strong></td>
</tr>
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<td><strong>Benefits of online tools – can make use of her travel time and connect with others through SNSs</strong></td>
</tr>
<tr>
<td><strong>Main benefit of online tools for her – keep</strong></td>
<td><strong>Benefits of online tools – Online tools give students the chance to join communities</strong></td>
</tr>
<tr>
<td><strong>Reasons for increased use of online tools – it is fun, useful and provides good practice opportunities</strong></td>
<td><strong>Benefits of online tools – without them, she wouldn’t have many opportunities to communicate with English-speakers</strong></td>
</tr>
<tr>
<td><strong>Tools – English on a PC once a week, on a smartphone once a week</strong></td>
<td><strong>Benefits of online tools – Online tools give students the chance to join communities</strong></td>
</tr>
</tbody>
</table>
Furthermore, by the end of the course Emiri was able to identify many benefits to using digital technology in English. She liked being able to use online tools anywhere, anytime, and valued the opportunities they gave her to connect with others while commuting on the train. She also praised them for giving students “a lot of chances to join the community” and providing her with a way of connecting with others, noting, “I think without online tool, I’m not so much chances to communicate English people, so it is one way to communicate other person.” Some reasons that she lists for her increased use of them throughout the writing course are “I found it is fun, and usable and good practice”. Finally, she saw using online tools as a “good way to keep motivation and it’s helped me to know my friend and teacher’s thinking.”

In terms of specific skills, she felt that digital technology had helped her to improve her reading and writing, but did not have a significant impact on her listening and speaking. She felt she had “become used to writing in English, and increased my writing speed.”

| The following topics were addressed in the same way as the examples above: Tools (Facebook, Lyrics Training, TOEFL Website, YouTube (including TED Talks), Twitter, Blogs and Skype), Motivating Factors and Deterring Factors. | motivated and learn about what others are thinking (community - teachers/friends). She thinks online tools helped her with reading and writing, but not much with listening and speaking. |

307
Appendix K: Ethics Approval

This research project was approved by the Human Research Ethics Committee of Charles Sturt University (ethics@csu.edu.au), which reviewed it in accordance with the National Health and Medical Research Council’s *National Statement on Ethical Conduct in Research Involving Humans*. The protocol number issued with respect to this project is 2014/041.