Technology in Japanese studies

Investigating the use of technology by students in the Japanese learning context

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ABSTRACT

This thesis investigates the use of technology in Japanese studies. Through literature on second language acquisition, individual differences, technology and mobile learning, and student autonomy the thesis looks at what other researches have presented previously. Then, a survey investigating the phenomenon of technology in Japanese studies is presented. The goal of the thesis is to shed light on students use of technology. Following the survey, an interview to investigate the underlying factors behind the phenomenon is presented. These three parts together aim toward understanding the use of technology in Japanese studies. The research presents the problems with technology, as well as potential benefits from technology in Japanese studies.

Keywords: Japanese, Second Language Acquisition, Technology, Media, Individual Differences, Mobile

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ABBREVIATIONS

FLA - First Language Acquisition

SLA - Second Language Acquisition

L1 - First Language

L2 - Second Language

L3 - Third language

ID - Individual Differences

1 INTRODUCTION

This chapter presents the purpose of the thesis, and gives a brief introduction on Second Language Acquisition, and how it correlates to technology.

1.1 PURPOSE

The purpose of this thesis is to develop an understanding on the state of technology in learning, as well as its usage. Thus, an understanding of how many students utilize technology in learning, what kind of technology, and lastly why it is used, is of interest in this thesis. The reason for these inquiries is to establish whether there is a need to support students in how or what technology to utilize - if technology should be utilized at all.

1.2 BRIEF INTRODUCTION TO SLA AND TECHNOLOGY

Ortega (2009) describes second language acquisition (SLA) as the field of research concerning the acquisition of a language other than ones first, during late childhood, adolescence or adulthood. Contrastively, the first language or languages are contained within the field of first language acquisition (FLA). The distinction is worth noting. However, the primary focus of this thesis will be SLA in connection to the Japanese Language Context (JLC) and technology.

Mobile learning is one of the aspects on technology and learning which will be defined in chapter 2. Background. The subject has been around for about 20 years and has been divided into three phases which are described in the same order. Starting with the first, Pachler et al., (2010) lists them as:

The theory of mobile learning first started with *a focus on devices*. The theory had its origins in the mid-1990s. It mainly focused on what devices, ranging from laptops, to personal digital assistants, to cell phones, that can be used in an educational context for instruction and training (Pachler et al., 2010).

A focus on learning outside the classroom is learning outside of institutionally framed educational contexts. It is usually realized as field trips, museum visits, professional updating, bite-sized learning and personal learning organisers (Pachler. et al. 2010).

A focus on the mobility of the learner can be further described as a focus on “the design or the appropriation of learning spaces and on informal learning and lifelong learning” (Pachler et al., 2010, p. 41). To explain what this means in reality, Pachler et al., (2010, p. 41-49) further divide this focus into three categories that have been summarized in this thesis as:

1. Mixed Reality Learning, where the digital world and the physical world work together to create a context for learning. Learners can collaborate and create content for themselves. One example of this can be the use of Quick Response (QR) technology (also known as 'QR codes') in which the learner can scan a picture with a camera which then displays information in a device.

2. Context-sensitive Learning, utilizes different methods to access what context the learner is in, in order to supply context-based learning tools; one example of this can be the use of location awareness systems like GPS in phones. Through this, a device can learn what context the learner is in and can thus apply the information received to accommodate the learner's needs.

   This context can hypothetically be a beach in a foreign country. The device can - through the information provided - supply helpful vocabulary to help the learner communicate in the L2 context.

3. Ambient learning is defined as making use of digital artefacts to augment the environment and enable learning. An example put forward is that of using a device, which triggered when children in an outdoor learning environment walked past. The device then displayed an image of a plant or an animal with a voice-over about an aspect of its habitat. The intended effect was to draw children's attention and for them to think and reflect upon what the device presented in front of them.

1.3 DISPOSITION

This thesis starts with an introduction, which introduces the topic, the purpose, the relation to second language acquisition (SLA), and technology in the learning context (LC hereafter).

Chapter 2. presents research about both SLA as well as technology in the learning context - which is briefly presented in the introduction. The background lays the groundwork for the thesis.

Chapter 3. the survey is the first part of the research conducted for this thesis. Its focus is the usage of technology in the JLC by students. The survey will be presented through an explanation of the methodology, the six sections of the survey, and a summary of the results.

The interview represents the second part of the research conducted and asks why students in the JLC utilizes technology. It will present the methodology, questions and results, a discussion as well as a summary. A discussion on the usage of technology in the JLC, on the research from the survey, and on the research from the interview. Lastly a conclusion will be presented with suggestions for further research.

2 BACKGROUND

2.1 PSYCHOLOGY IN SECOND LANGUAGE ACQUISITION

Individual differences (IDs) in SLA, as Dörnyei (2005 p. 1) describe "are characteristics or traits in respect of which individuals may be shown to differ from each other." The relation between IDs and SLA is that the collective (i.e., class, group of students) usually are taught the same thing, while, IDs - as Dörnyei (2005, p. 2) puts it - "bring in a 'Yes but…' factor." What Dörnyei means is that while it is an easier task to teach a class as a collective, there will always be those who are in need of different methods of teaching. This creates a tension between *the individual* and *the collective* in SLA. Wolff (2011, p. 3) states that "in the main-stream foreign language classroom, teachers focus on the abilities and skills of a virtual learner who represent the average norm and do not accept that learners are different in approaching language learning tasks." The norm is problematic because it neglects those students that do not fit the norm. Arabski and Wojtaszek (2011) write that one important aspect of language teaching is the teachers' participation in developing the learner's autonomy as well as the potential aspect of developing the student's independence. They also write that there is still a need for more research within the field of IDs.

The research into the subject of IDs has been elusive, as well as somewhat problematic to study. The reason for this is simply the variation aspect of IDs. The task of understanding IDs is large and difficult. However, some researchers have focused their research toward identifying the underlying factors of IDs. Wolff (2011) and Dörnyei (2005) listed two of these factors, identified as *aptitude* and *motivation*. Further research discovered that while these are central factors in the LC, they are not alone. Additional factors such as *learning styles* or *learning strategies* can be incorporated in trying to understand learner success in their target language.

There has been a lot of studies on introversion and extroversion in relation to IDs. The two facets are the easiest among IDs to identify and it has been the topic of much debate in terms of learner success. However, Dörnyei (2005) writes that both introversion and extroversion - while having different effects on learning - are good traits. The difference lies in the type of learner strategies that suit the student. Dörnyei (2005) goes on to state that research has shown that extroverts often get higher L2 scores in complicated language tasks such as conversations and formal language environments. In contrast, introverts often get higher L2 scores on written exercises. The difference in language acquisition among introverts and extroverts are the clearest among the study of IDs. It is not only the difference in fluency among different aspect of the language that is of interest, the handling of learning tasks among introvert and extrovert students differ. This difference is related to how the introvert and extrovert trait handle different types of learning tasks. Dörnyei (2005) writes that the different tasks are more or less suited to the student depending on the personality trait they possess.

Umeda (2005) argues that teachers should take on different roles to be able to help students become autonomous. She writes this in an article on the importance of student autonomy in Japanese studies for exchange students.

2.2 DEFINITION OF MOBILE LEARNING

There is a need for limiting the scope of what mobile learning involves. Specifically, it is easy to assume that Mobile Learning has to do with technologies. Although this may hold true, the more apparent feature that Pachler et al., (2010, p. 5) discussed is "the need for individuals to go beyond the acquisition of knowledge relevant to issues encountered in the world but also shape their knowledge out of their own sense of their world." Mobile learning, thus, has more relevance in terms of mobility and contextuality of the learner outside of classrooms. Further they argue that learning how to successfully operate new and ever-changing contexts and learning spaces of mobile learning rather than delivering new content to mobile devices is central to mobile learning (Pachler et al., 2010). Therefore, mobile learning is not primarily about technology but about being able to navigate within the dynamic dimension of mobile learning. This leaves us with the idea that what is most important, is to manage what already exists in the landscape of mobile learning, in a way that facilitates learning.

Winters (cited in Pachler et al., 2010, p. 6) defined mobile learning "at least at that time" into four categories:

- technocentric,
- relational to e-learning,
- augmenting formal education and
- learner-centred.

This definition enables knowledge building in and across different contexts by facilitating learning for the student "just in time," "just enough," and "just for me," rather than providing learning "just in case." The definition also predicates the move from information transmission - which mobile learning has been seen as - to a model of 'anytime, anywhere' access. What is noteworthy in the move from information transmission is that by being able to facilitate learning outside of the classroom, teachers can utilize the contexts the learner is situated in to facilitate appropriate learning. Mobile devices can thus be seen as mediating tools for building the learners' knowledge.

As for the devices that mobile learning encompasses, Pachler et al., (2010) limits the scope to mobile/cell-phones, personal digital assistants, as well as other portable devices such as music players and game consoles. They, however, exclude - at the time of the book - laptops as it still lacks 'true portability.'

3 THE SURVEY

The aim of this survey is to get a quantitative indication about how common it is among students in JS to utilize technology for learning. Since a survey is limited and the goal is to get as much information as possible surrounding the subject, the questions were closed; this means that what is lost in the survey is the understanding of why technology is being used. That aspect of technology in the JLC is however covered in the interviews conducted after the survey. Thus, the survey aimed to assess the use of technology. Its questions focused on which devices, media, and programs, among others are used by students in the Japanese language context. The survey also explored for which aspect of the Japanese language the devices, media, and programs among others were being used. Another aspect of technology explored in the survey is the participants perspectives on the use of technology in the JLC.

3.1 METHODOLOGY

In this chapter, the survey will be presented. It is divided into four parts which are listed accordingly.

- *Types of tools, applications, and media* is presented to understand the extent of technology, media, and traditional methods that students of Japanese use.
- *Types of learning within the tools and methods* is presented to further understand what aspect of the methods they used.
- *Types of learning during which activities* aims to uncover when students use the methods and tools.
- *Participants' goal of using methods* draws on the participants perception of what different methods allow in terms of skills.

The material has been gathered and participants have been sorted into two groups of experienced and unexperienced students of Japanese. The two groups differ in number of participants with 13 in the experienced group and 15 in the unexperienced group.

3.2 THE PARTICIPANTS

In this survey, 28 students of Japanese participated, most of which have been or are students at Lund University, Sweden. In the agenda to find out how students use technology from experienced students and unexperienced students, the participants were divided into two groups. The first group are the participants who have studied between zero to two years, while the opposite group consisted of participants who have studied more than two years. The information on the participants length of Japanese studies was gathered from the survey.

3.3 RESULTS

Here the results from the survey will be presented from each section.

3.3.1 Types of tools, applications, and media

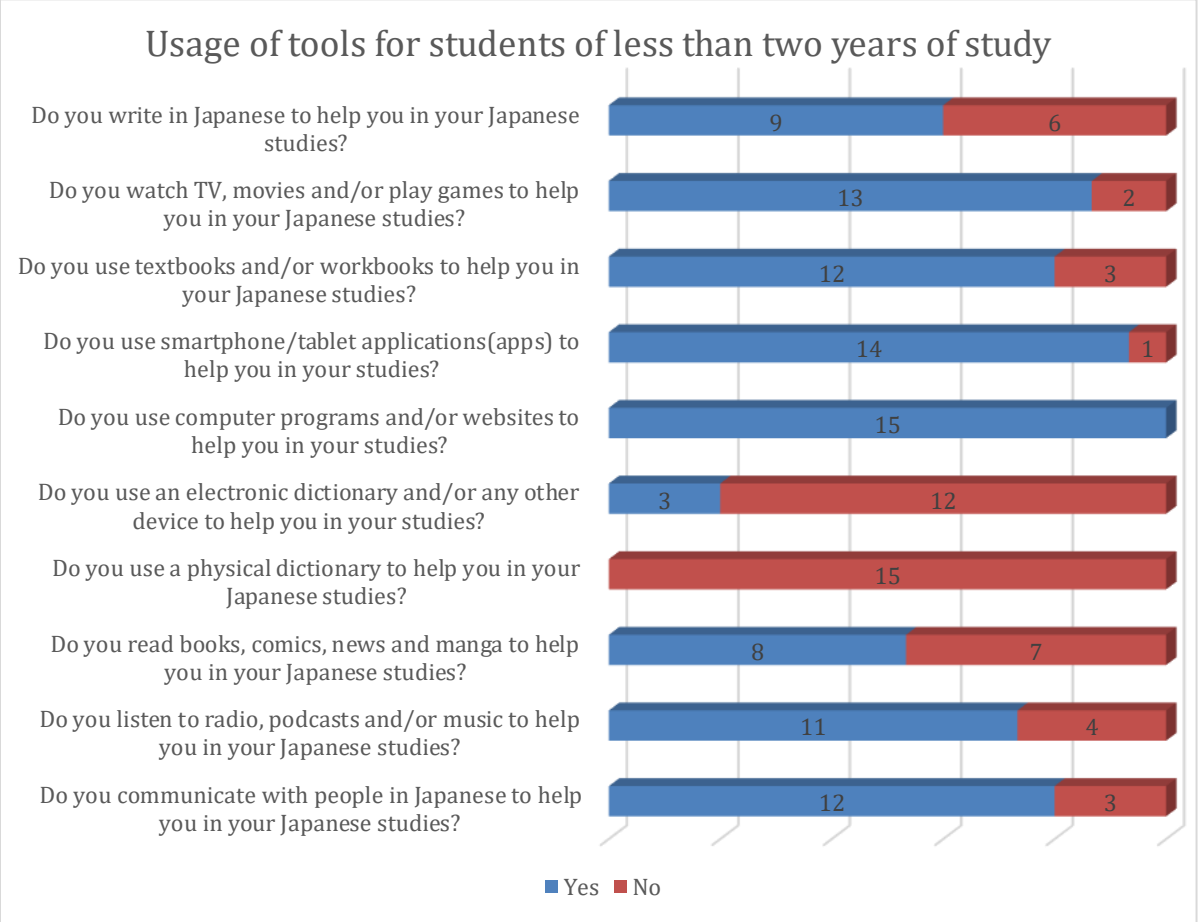


Figure 1 - Usage of tools for students of less than two years of study

As part of the survey, participants were asked about what they utilize in their studies of Japanese. In figure 1 the usage of tools for students who have studied for less than two years is presented. Here, the figure presents an array of questions asked to the participants with responses colour coded between their responses. What is notable here is that the majority of the participants indicated that they communicate, listen to audio, watch and play, to further their learning. While the mentioned tools are significantly high in regard to number of participants utilizing those, reading and writing is only indicated as slightly over half of the participants within the group. They also use programs, smartphones or tablets, textbooks and workbooks, to a high degree as well to further their learning of Japanese. However, a noteworthy aspect is that, while the mentioned aspects of interacting with devices and platforms are high, using a physical dictionary and an electronical dictionary remain low for this group of participants.

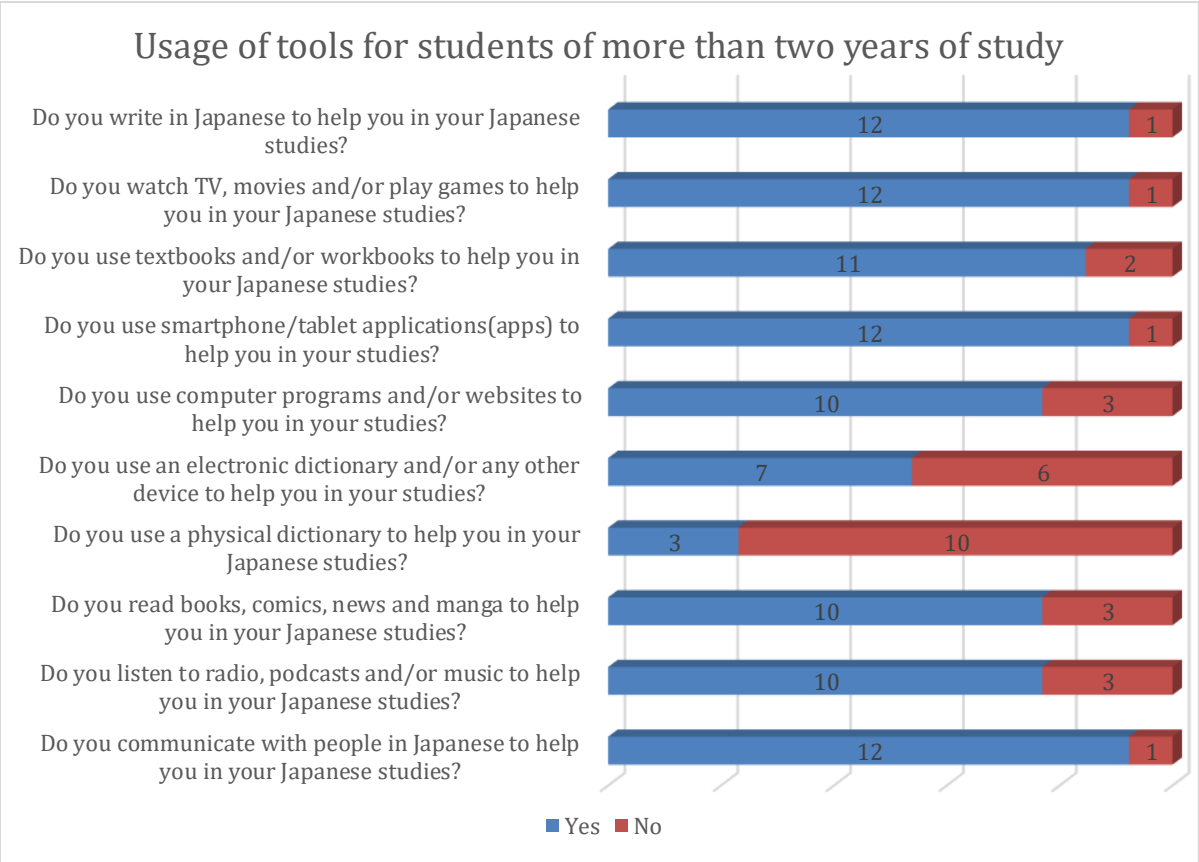


Figure 2 - Usage of tools for students of less than two years of study

As stated above, figure 1 presents the usage of platforms and devices for participants who have studied less than two years while figure 2 presents the same for participants who have studied for more than two years. Here the results are similar to the other group of participants, although, the spread is more even and indicate a wider variety of usage between tools. However, while usage of physical dictionaries remains low in number of participants, usage of electronic dictionary is more present among these. Reading and writing as interactions are also higher in terms of participant usage.

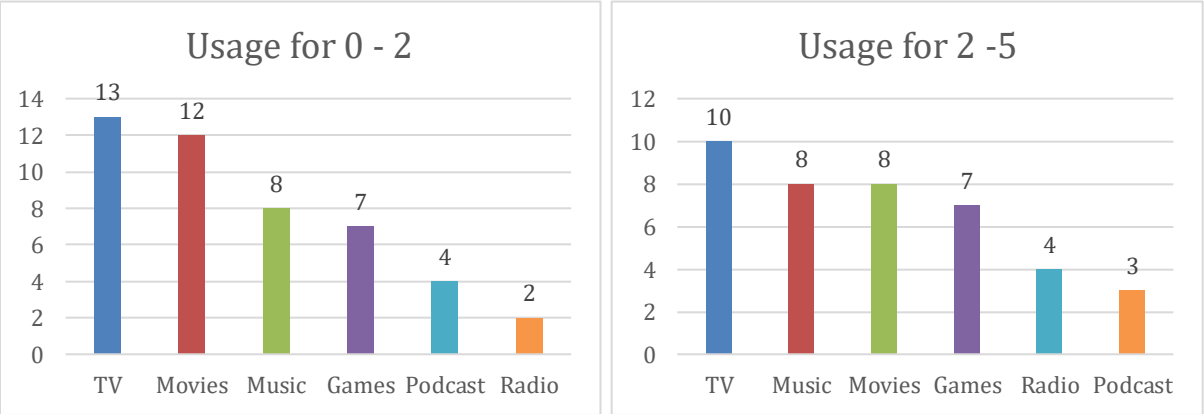


Figure 3 - Usage of media for students of less than two years of study

The usage of platforms and devices as presented in figure 3 – which is limited to the use of technology - indicates the usage of smartphones and websites as the highest ratio of the

participants. Here however, the difference between the usage of smartphones and websites is that among the participants who has studied Japanese for less than two years, websites are the most used, while for the opposite group of participants; smartphones are used to a higher degree. While it may seem as if the first group indicates a trend of not using programs, tablets, and electronic dictionaries, the more experienced group of participants use electronic dictionaries in a higher ratio – although the use of programs and tablets are still indicated as low.

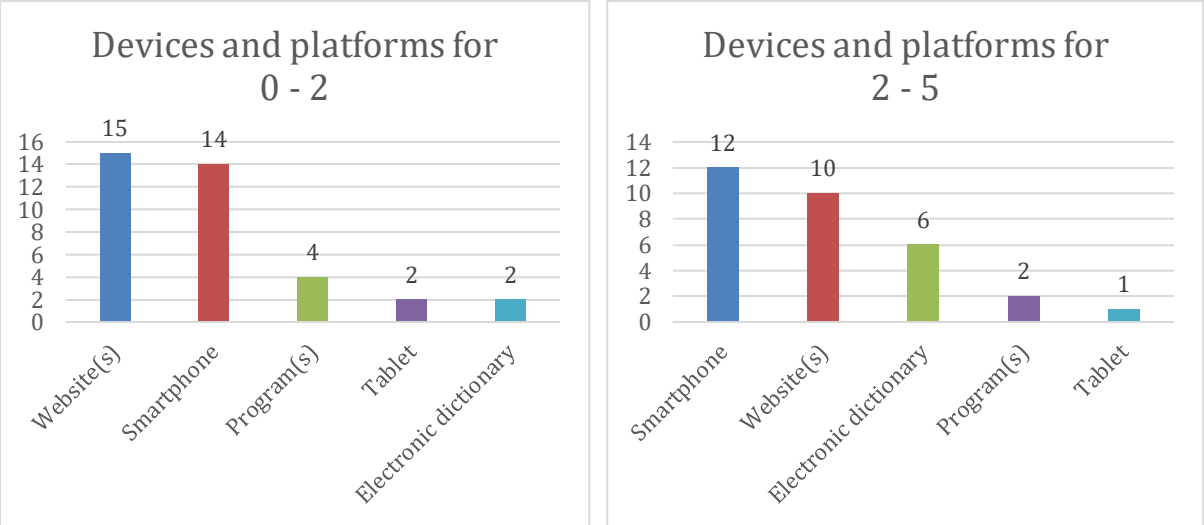


Figure 4 - Devices and platforms of students of less than two years of study & students of more than two years of study

In terms of media (see figure 4) at least half the participants of both groups use TV, movies, music and games to help them in their Japanese studies. The lower factors that remain are primarily auditory media (radio, podcast) which present lower numbers of participants' usage. The difference between the groups appear to be minimal with very similar results.

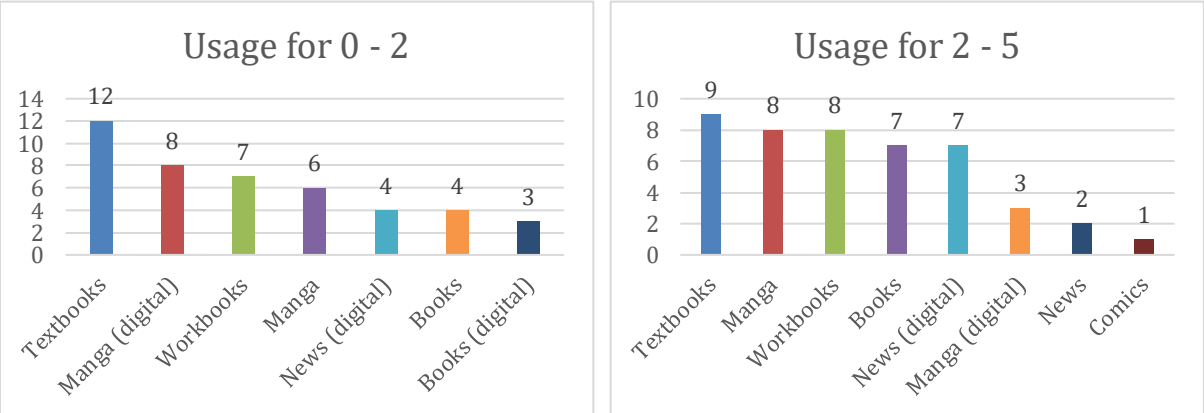


Figure 5 - Usage of traditional methods for students of less than two years of study

Furthermore, traditional methods – or traditional media – in the form of books present that textbooks are the most used among both groups, while the rest varies in usage. Experienced (students with more than two years of Japanese studies) learners use these types of traditional

methods to a higher degree – while leaving digital manga, news, and comics low in usage – and the spread between them are evenly distributed. Noteworthy here is the use of workbooks where experienced learners use those to a higher degree. News, while low in the group of experienced learners, is non-existent in the other group of participants. Similarly, while digital books are present within unexperienced learners, it is not among the experienced learners. The two groups contrast each other in usage of traditional methods, the more experienced group utilize a variety of methods while the unexperienced group has three majority methods (textbooks, manga (digital), workbooks).

3.3.2 Types of learning within the tools and methods

Within technology, there are many types of applications and websites which is an interesting aspect of learning with technology; what kind of activity do students use in their technology to learn? Presented in figure 6 are the types of applications unexperienced students use in their

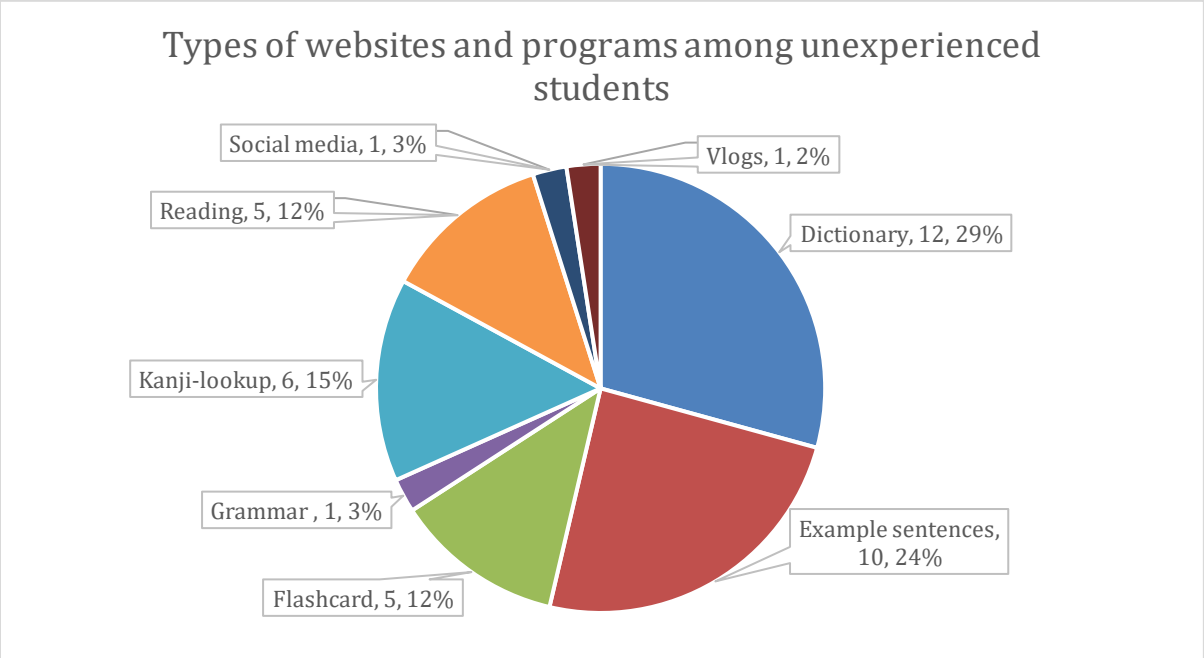


Figure 6 - Types of websites and programs among unexperienced students

studies. Dictionary, flashcard, and kanji-lookup are the types of applications are used the most among these participants. Reading, example sentences, and YouTube are lower in types of usage in technology. This correlates with the experienced students' group which have similar distributions while also adding *asking natives questions* and *Google* as types of applications. The distribution of types remains similar in both groups, although the experienced group seems to

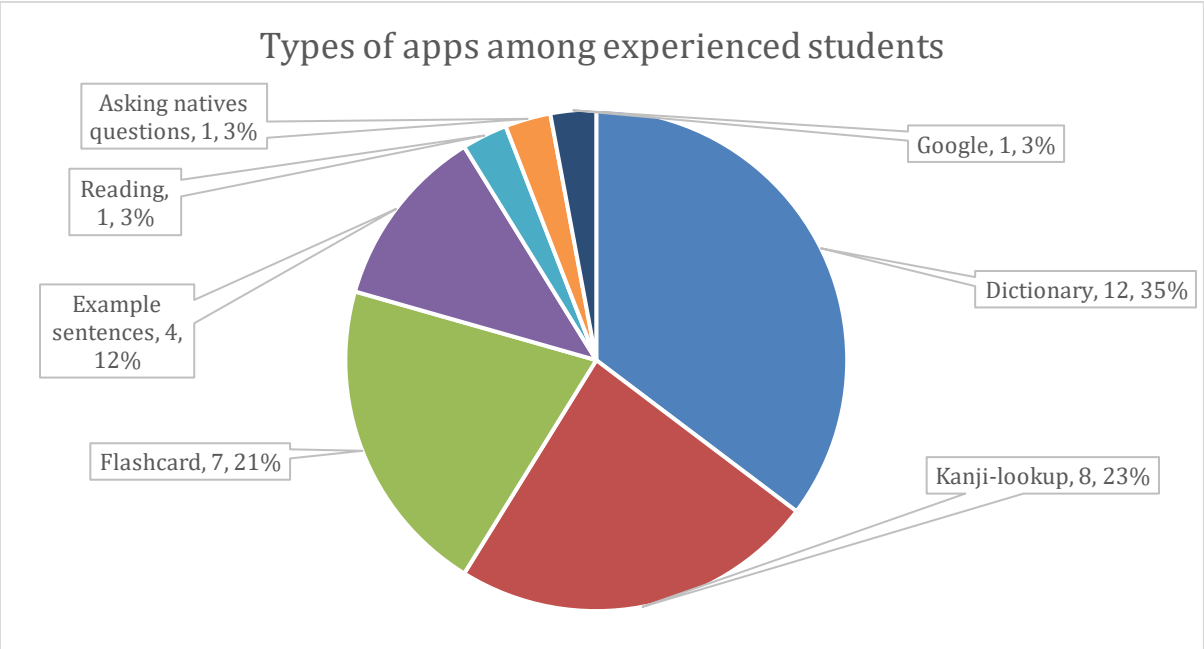


Figure 7 - Types of apps among experienced students

use a slightly larger variety in the types of applications.

The use within websites and programs are also depicted (see figure 8) from the results; It follows a similar distribution while receiving a few additions. The additions within the unexperienced group are grammar, social media, and vlogs (video blogs). However, they only represent a small number of participants and the pattern that was presented in figure 5 and 6 remain similar to the trends in types of websites and programs.

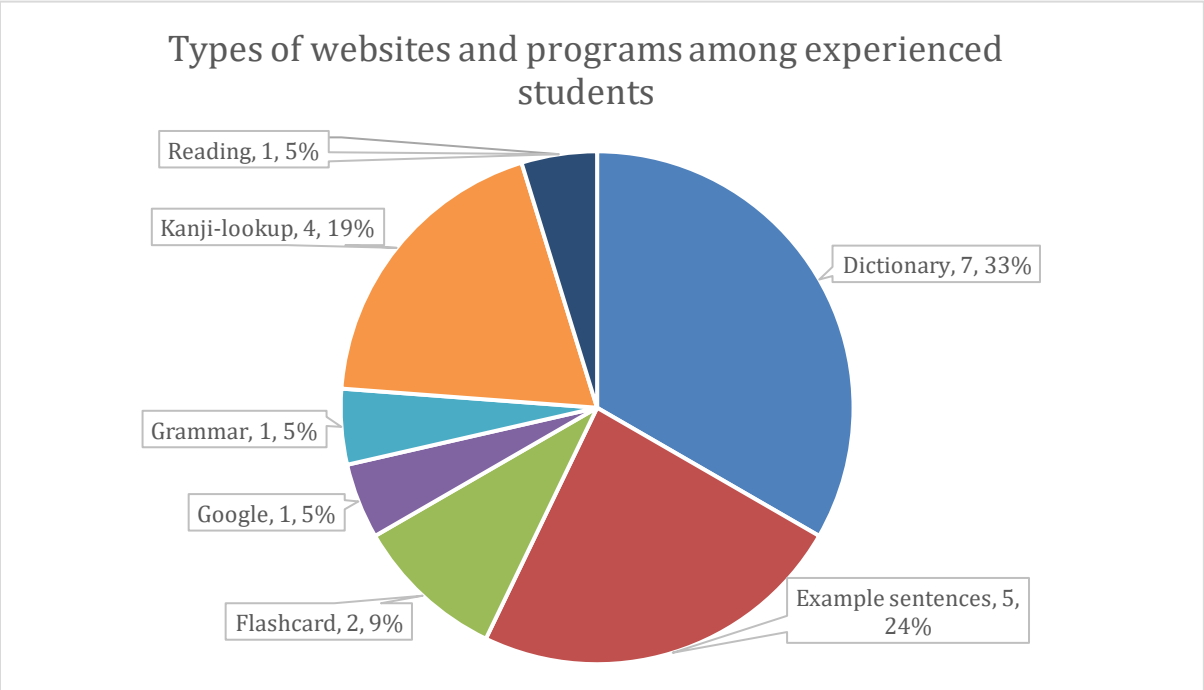
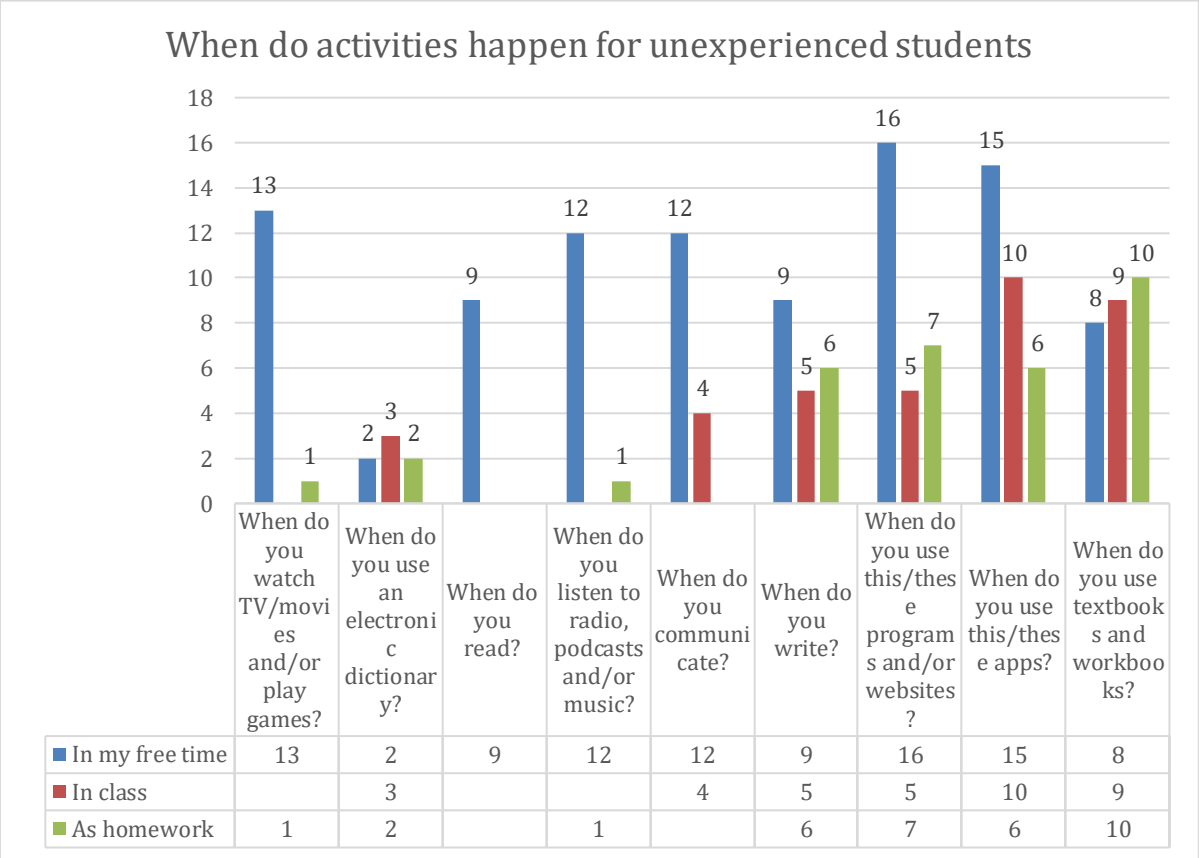


Figure 7 - Types of websites and programs among experienced students

3.3.3 Types of learning during which activities

The participants were asked when they use a specific method (see figure 10, 11) which proved that for most of the participants within the unexperienced group did so during their free time. *In my free time* had a large majority in most of the methods, while two methods (textbooks and workbooks, and electronic dictionary) did not uphold the same. For electronic dictionary, the result is probably dictated by the low use by the participants, which was presented earlier (see figure 4).



	When do you watch TV/movies and/or play games?	When do you use an electronic dictionary?	When do you read?	When do you listen to radio, podcasts and/or music?	When do you communicate?	When do you write?	When do you use this/these programs and/or websites?	When do you use this/these apps?	When do you use textbooks and workbooks?
In my free time	13	2	9	12	12	9	16	15	8
In class		3			4	5	5	10	9
As homework	1	2		1		6	7	6	10

Figure 8 - When do activities happen for unexperienced students

However, when using workbooks and textbooks, the participants did so at an even rate between the three activities (*in my free time, in class, as homework*), while it was mostly used as part of homework, with *in class* following. Overall, it seems that the participants of the unexperienced group use their methods mostly in their own free time.

The experienced group produced very similar results (see figure 11) – with the same overall use during their own free time. Although, here, some students use a physical dictionary, as both homework and in their free time. Aside from that, the activities remain very similar to the other groups – with smaller differences between them.

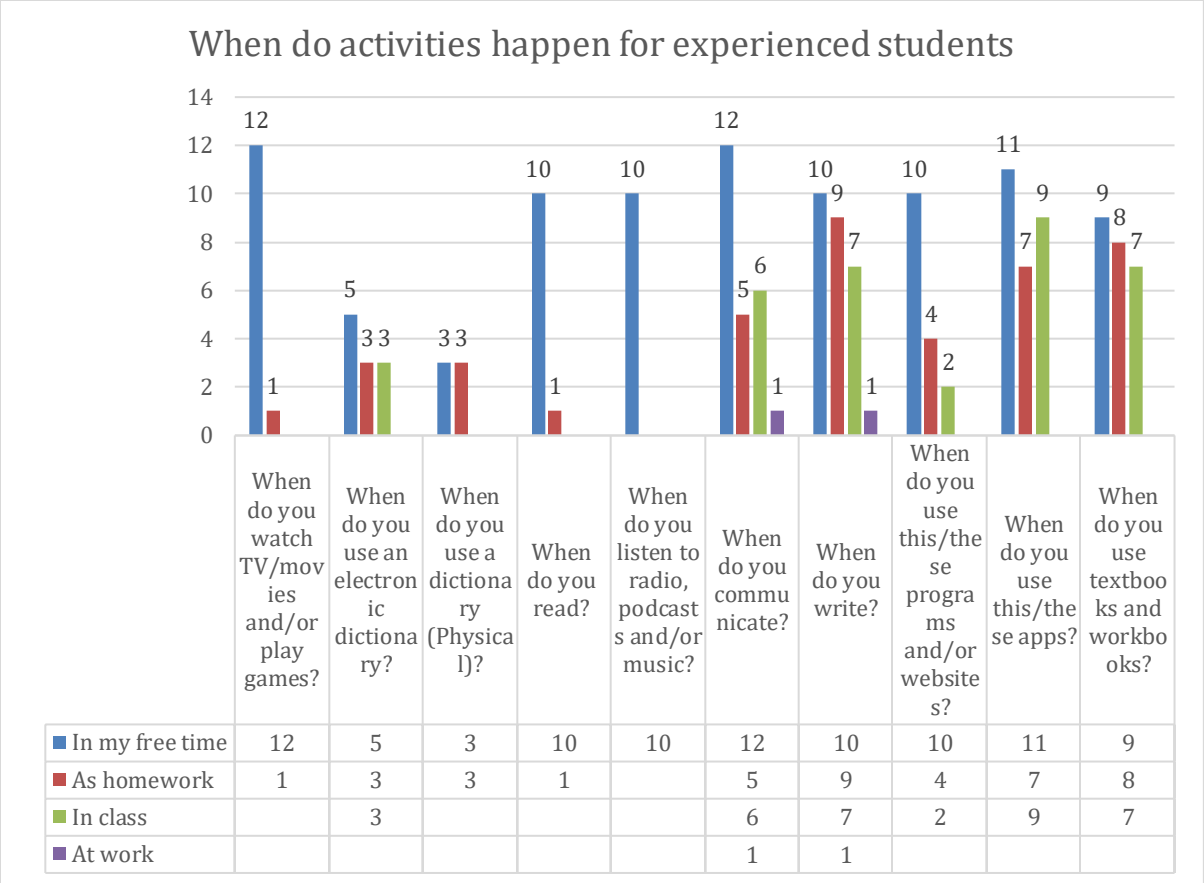


Figure 9 - When do activities happen for experienced students

3.3.4 Participants' goal of using the methods

As a final part to understanding technology in Japanese studies through the survey; the participants were asked what they hope to improve by using which method. As for technology (see figure 10) the results from the survey shows that in terms of applications, experienced participants and unexperienced participant use it for very similar skills. Contrastively, the website method is rated as providing more in terms of skills by the unexperienced, while the experienced rate it similarly to the applications method, if not lower. For computer programs, electronic dictionary, and other device, the results are low. This is probably due to the low usage of those methods. Websites and applications are thus higher since there are more participants who use those. Mainly the skills that the experienced participants think websites and applications afford are tied to Chinese characters, reading, and vocabulary, while the other skills seem less significant.

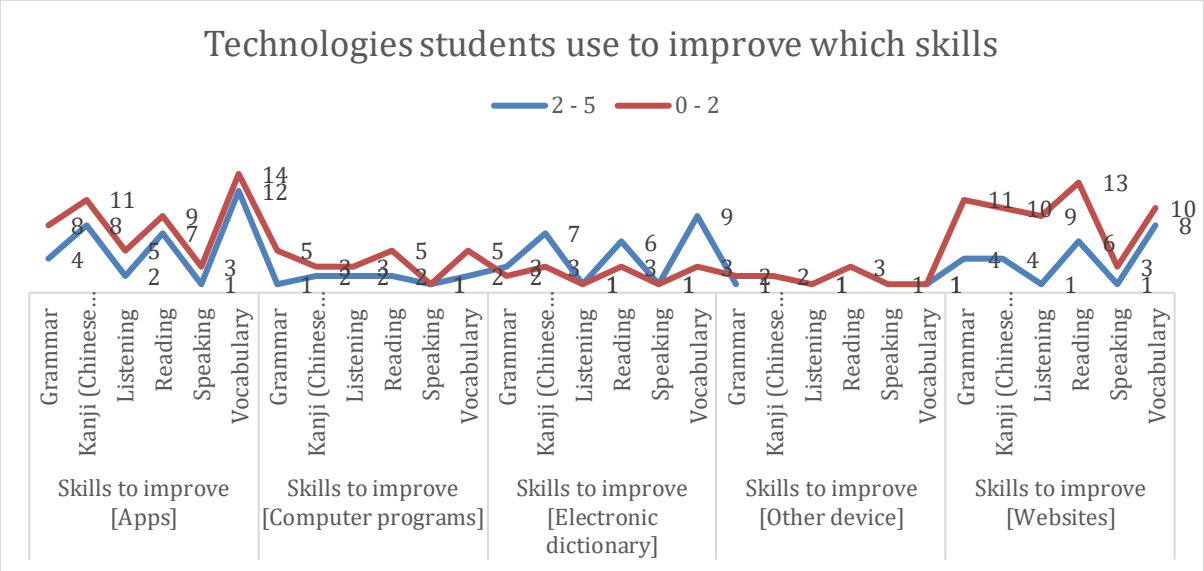


Figure 10 – Technology that students use to improve skills

This is contrasted by the unexperienced who rate grammar, Chinese characters, listening, reading and vocabulary as high, through websites. Speaking appears to be unanimously low in every category.

The media as presented in figure 11, show two categories: radio, podcasts, music, and TV, movies, games. The participants' results show that the former – the auditory – is perceived as improving grammar, listening, and vocabulary. Here speaking is also indicated as a skill to improve, although it is lower than the others. For the latter category – the visual & auditory – is perceived as providing grammar, listening, and vocabulary. Here, - while lower – Chinese characters, reading and speaking are also perceived as benefits of this category. The groups only differ slightly.

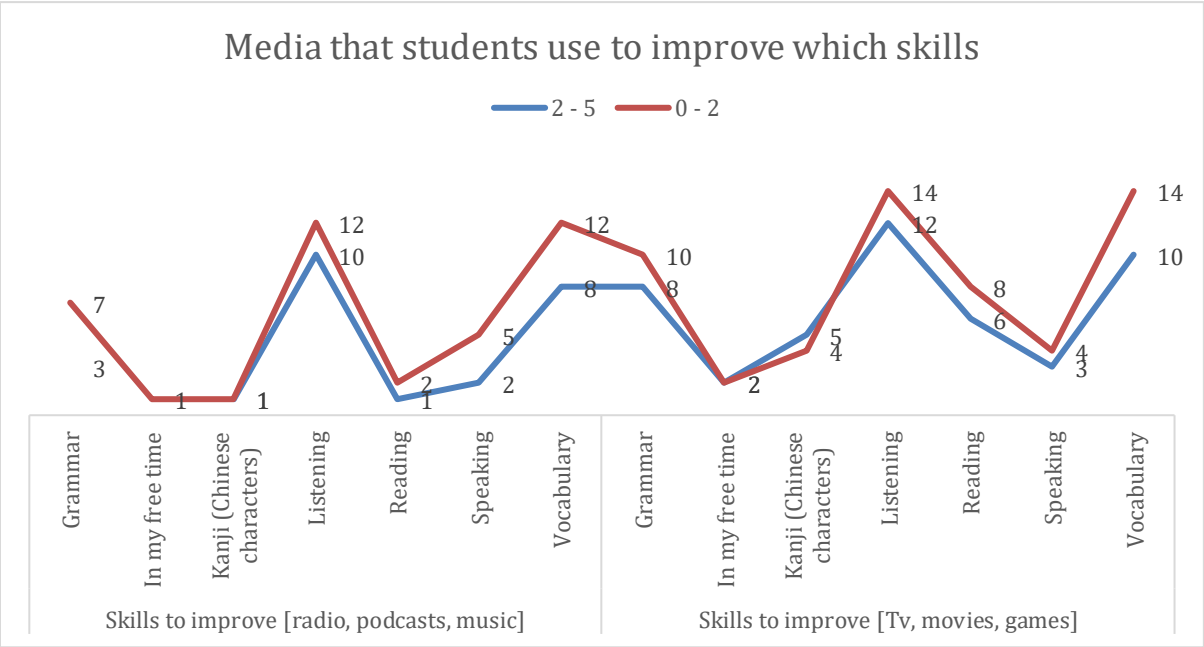


Figure 11 - Media that students use to improve skills

Finally, there are the traditional methods which were asked about to the participants. Here the groups differed a lot in their answers since they did not use some of the methods. Books, comings, news, and manga were only answered by the unexperienced group, who indicated that grammar, kanji, reading, and vocabulary were skills that could benefit from this category. Similarly, the experienced group answered that writing could provide grammar and Chinese character skills while leaving the rest unanswered. The unexperienced group however, identified grammar, Chinese characters, reading, and vocabulary as potential benefits of writing. Physical dictionary retained no significant results.

In communication, both groups identified grammar, listening, speaking, and vocabulary as potential skills. Similarly, textbooks and workbooks received even scores, although, speaking and listening was lower, while the unexperienced group indicated a lot more fluctuation between the skills.

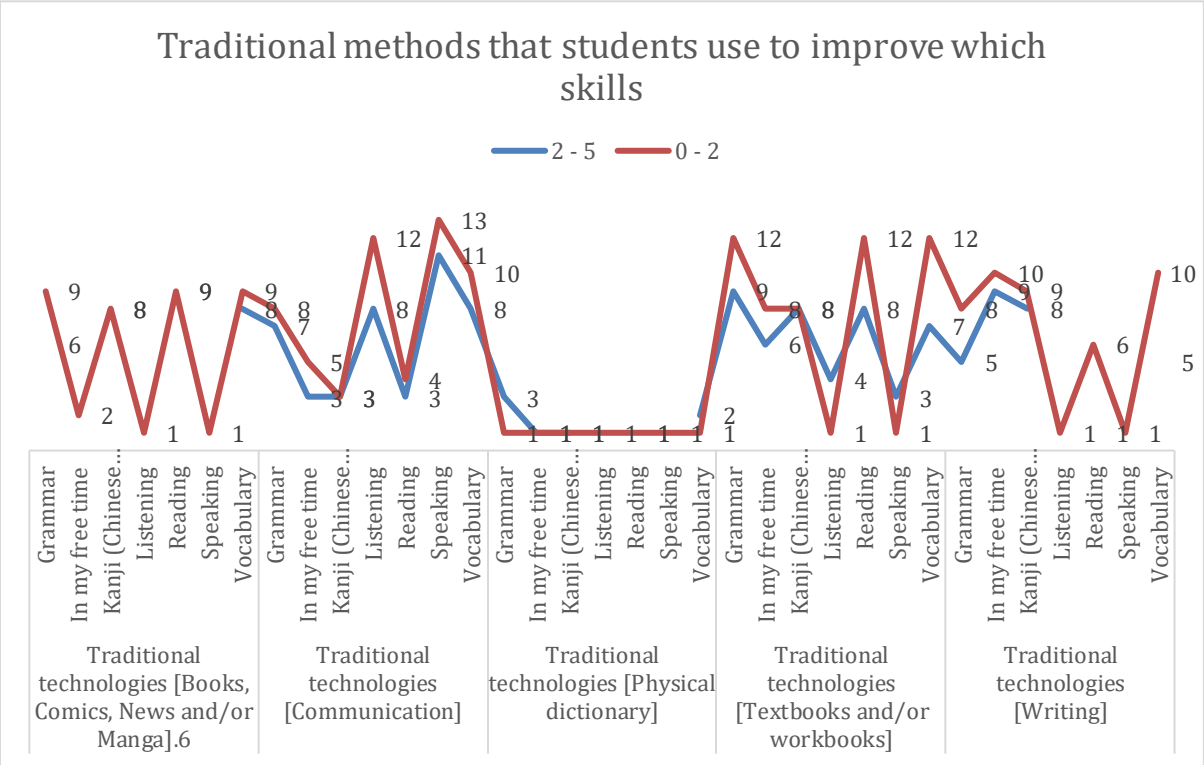


Figure 12 - Traditional methods that students use to improve skills

3.4 DISCUSSION

The survey's purpose was to indicate the trends of technology in Japanese studies and uncover what that involved. Technology was one aspect which involved which devices are used, for what purpose they are used as well as how and when they are used. By investigating this, the survey would provide an overview of technology in Japanese studies.

The devices that are used range between smartphones, computers, electronical dictionaries, tablets, and other devices. The participants indicated that Smartphones were used the most alongside websites – not as a device but as a means to get information.

The difference between the groups of experienced participants and unexperienced participants presented some differences in methods. These differences in methods - while not – extremely different from each other indicated that the use of technology, media, and traditional methods varied. Mostly the experienced participants used electronical dictionaries which might be because of familiarity with the language, or that it is an investment that students make later on in their studies.

Moreover, the experienced participants utilized a wider variety of tools (see figure 2 & 3) that could mean that the level of language to be able to utilize multiple tools is acquired through time studying the language. While that might be one interpretation, it intrinsically allows for a more varied approach to learning language. The media and traditional methods' results indicated that experienced participants – similarly to that of types of goals and types of learning – used the tools they could to a larger effect.

Experienced participants, and unexperienced participants alike use devices and tools very similarly when they are utilized. Smaller differences lie in the goal of using those devices. As the last section indicated, the unexperienced participants' goals for using different tools were very similar to their counterparts, however, the results of those were exponential (see websites category in figure 10).

This chapter provides an overview of trends of technology within Japanese studies which was the main goal of the survey. Most of the participants utilized technology in some regard in their studies. It is difficult to argue for why experienced students used a larger variety of tools since that is not this chapter's objective. An attempt to understand why students use technology is covered in the next chapter.

4 THE INTERVIEW

The interview was created after the survey had been designed - to answer questions outside of the goal of the survey. The survey was designed to shed light on how and when students of Japanese utilize technology, while another question remained. This question was why they use technology in their Japanese studies. Thus, the interview was designed to bring understanding to the phenomenon of technology in Japanese studies.

4.1 METHODOLOGY

The interviews were conducted with participants from the survey. Each interview was recorded with the participants' permission and will be kept anonymous. After the interview, the recording was transcribed and analysed in this thesis.

The questions were structured to investigate the underlying reasons for the phenomenon of the use of technology in Japanese studies. Thus, the questions had to be open - leaving room for thought and interpretation from the participant. The question of *why* was central. There was also a need for further investigation, thus, with the scope of the research, the interview was limited to five questions:

- From my research, there is evidence of technology being used frequently in Japanese language studies. Why do you think that is?
- What are the downsides and upsides of technology in Japanese language studies?
- How could technology be introduced into the classroom and should it? (aside from what already is being used, i.e., audiotapes, computer rooms)
- How could technology be combined or take an auxiliary role in homework, and should it?
- Is there a difference in the usage of technology between the 'successful' and the 'not as successful' student?

The questions are arranged – within the results of this chapter – in categories which pertain each question. Thereafter, the answers have been arranged into subcategories that represent the topic that the participants raised. The topics were not necessarily stated by the participants, but, resulted from the analysis.

Lastly, the interview questions were asked in English, in the same order as above. The participants were free to answer in either Swedish or English, depending on what they were most comfortable with.

Thus, the Swedish recordings have been interpreted and translated into English in this thesis. The results from the interviews have been gathered up and divided into categories. Thereafter the responses have been summarized.

4.2 THE PARTICIPANTS

The participants in the interview were participants from the survey. There were nine participants in the interview conducted after the survey had been completed. The participants had all attended Lund University at one point as a student of Japanese. They were asked to participate in the interview and the interviews were all conducted at Lund University.

4.3 RESULTS

4.3.1 Reasons for technology being used frequently in Japanese language studies

4.3.1.1 Mobility, versatility, and accessibility of technology

Participant 3 stated that "having a digital resource allows you [the learner] to have - you know, a dictionary - a huge piece of information in your pocket and accessible to you at any time which is amazingly useful." Most of the participants (participant 1, participant 3, participant 4, participant 5, participant 6, participant 9) referred to smartphones as an alternative to paper-based material. The reference to smartphones mostly adhered to a digital dictionary as an alternative to owning and carrying a book – or even multiple books.

> "A lot exists, for example, apps and such. I do not really have to buy any book. Sure, a book is always good [to have] but for example as a dictionary; you have that in your phone. It's easier to have it in the phone than having a book. What do I ned a book for then? …. So, I think that is why, and that you use a lot of technology today." (Participant 9, personal communication, 2018)

The participant speaks towards the state of dictionaries today, which goes in line with a comment participant 4 which was that "electronical dictionaries are way more approachable than a book-dictionary," and further stated that digital dictionaries – or electrical dictionaries – are usually more convenient since the student can search for Chinese characters by drawing them on the screen. Participant 3 add to the digital dictionaries ability to look up vocabulary, grammar, example sentences, and Chinese characters quickly by stating that

> "as a Japanese learner you will continually – throughout, maybe your life – find new words and new kanji (Chinese characters) you've never seen before …, while maybe it [digital dictionary] doesn't help you with your kanji-writing skills, or maybe gradually works that kanji into your conscious and you start to become more comfortable in reading these."

While being able to search for language related content, participant 3 hints at the potential limitation of digital dictionaries; learning to write Chinese characters. To contrast this, participant 6 mentioned that a physical dictionaries can be used to look up vocabulary, and it might have some additional functions, while a digital dictionary can provide student with Chinese characters, and stroke order; the order that the character's strokes are supposed to be drawn.

> "I always looked up stuff online. I always used a dictionary as an app …. you just search in it [the app] directly, it [the search results] is shown instantly; all particles, example sentences, everything. If you look in an ordinary dictionary you don't get it [the same content]. You might get a translation and maybe a bit more." (Participant 6, personal communication, 2018)

Furthermore, participant 1 stated "you have a computer in your pocket, it's easier to use than to have to carry a load of books. And this: you can get in contact with native speakers via apps, and it's more reliable to listen to what they say than what the books say." Aside from the convenience that students are able to carry computers in their pockets, the statement mentions one ability that technology affords which – unless the student wishes to send letters – is to talk directly to natives of the TL.

Rather than looking up grammatical items in paper-based resources, which "tend to be huge and very complicated," electronical resources can facilitate learning by relieving students from spending time browsing through a physical book (Participant 3, personal communication, 2018). The participant relates this to saving time for the student and that it makes the learning more efficient. "I believe it is out of convenience in a study which is usually very stressful and intense." Participant 8 also adds to the efficiency by comparing pen and paper to digital means with "I can imagine, [that] it is mostly to streamline the actual learning and make it easier to handle a lot of information." Participant 9 would search online to remind or look for further meaning of items within the TL. "'I know Japanese so if you're really a beginner then maybe it is better to have a book, but it's so easy to find online …. Common questions about Japanese and to find words can be found online." This relates to the nature of the participant who is not a beginner of Japanese and that books might be more appropriate for beginners. The participant also refers to the fact that there are resources online where students can find information of the target language. Participant 1 spoke about being able to study on the train by merely bringing up their smartphone. "You can look up words or you can look up spellings on the fly, which is really convenient" (Participant 4, personal communication, 2018).

> "Mobile [phone] is the best way to just bring something up while doing something else. And it is to study kanji or read news and such, - you know - and studying that way. Podcast, and listen to radio, things like that - in Japanese of course. And I think, those [that do] utilize their time with the help of technology to its fullest." Participant 5, personal communication, 2018)

4.3.1.2 Distance between the target language and location of study

”Since we live in Sweden, getting in contact with Japanese culture or some form of studies [related to Japanese], then it’s always the internet [you use]” (Participant 6, personal communication, 2018). The participant then mentions that previously there might have been more manga – Japanese comics – out and if the student wanted to read those, they would be translated. “If you want to use manga to study for example, well then you will have to go online and read manga there.” Adding to the same notion: “if you’re going to watch series, there are no Japanese series on Swedish television. They are always dubbed or similar, when they are.” The means to get hold of Japanese culture – as told by the participant – are online; “The same thing if you’re looking up things [related to Japanese] then it is online that is the fastest.” Participant 6 further relates the ability to utilize online resources in English since “Sweden [swedes] are so good at English,” that Swedish students can use English platforms for Japanese content. “and this also makes it so that the internet is used more.”

The distance between the TL and the native language relates to how technology can be used, “More can be done there than for example…, if you think about Swedish to Spanish or English to Spanish” (Participant 2, personal communication, 2018). Furthermore, the participant argues that the language leap mentioned is smaller than students with a western native language to Japanese. Thus, “the road to language knowledge has shortened through technology.”

4.3.1.3 Pop-culture as the driving force

One of the reasons for the use of technology is that “today’s society might favour electronical applications in language studies, compared to paper ones is because of the huge market …, with its high pop-culture appeal” (Participant 3, personal communication, 2018). Furthermore, participant 4 denotes pop-culture as a reason; “the means for us, who are no in Japan to get hold of these [anime and manga] are usually by computer or TV – or maybe computer downloading, and streaming sites.” Additionally, participant 7 argues that since “the early 2000’s when anime and a lot of Japanese [content] became very popular” a lot of people have grown interested in Japanese. Thus, the popularity into Japanese from the interest into Japanese pop-culture has driven educational technology as well. “I feel like there’s a big demand so there just exists a lot.”

4.3.1.4 Organization and progress

Participant 1 states that they have saved every piece of paper the participant has received and further says that those papers are never looked at again. However, the participant argues that “in the phone it’s a lot easier, then you can just search for a folder …, and [that way] keep track of how much you’ve learned. If you’re dealing with paper, it’s a lot harder to assess.” Furthermore, the participant feels that it is nice to have everything saved in one location since then they do not have to keep track of papers.

4.3.1.5 Technological world

Participant 3, 4, 6, and 5, all speak toward that today's society where – as participant 4 puts it - "the natural development of technology into our everyday life is probably also a real integral part [to why technology is being used in Japanese studies]." Furthermore, participant 5 state "when I answer to this stuff, I think that it's not possible to study without technology," and further specifies why to in today's study environment (e.g., classrooms) it's impossible to get away from technology.

4.3.2 The downsides and upsides with technology in Japanese language studies

4.3.2.1 Large amounts of information, and unreliable information

An upside mentioned by participant 7 is that "there are a lot of English language tools to use [for studying Japanese]." It is also very accessible to students of Japanese who know English, but the downside is that high quality is not assured according to the participant. Participant 2 adds to the notion by mentioning that the accessibility of material is a merit since acquiring material "is becoming better and easier."

To add to the unreliability, participant 9 argues that unless the student is at a certain level of Japanese, ascertaining whether or something (vocabulary, sentences, etc.) is correct or is used is difficult. Therefore, if the level of Japanese is lower, "you can get wrong information and then you probably will learn wrong or similar." Participant 9 thus argues that the ability to ascertain whether information is accurate is important when looking up material online. participant 1 also states that there are a lot of unreliable sources which "is not very good. You can learn the wrong things as well as that you don't have anyone who says if you're wrong."

"Since there are a lot of crowdsourced [material], the positive [aspect] is that there are many that give input, so it might be closer to the correct answer that you're actually looking for." To provide contrast, participant 1 continues to say that there might be a lot of inconsistencies or misinterpretations, that you might not see in official dictionaries and such. However, the participant further argues that students might find more natural uses [of the language] while textbooks "are sort of known for having limited, or unnatural explanations or translations and such."

Participant 2 also adds to the notion by arguing that if the student is "aware of that you're looking at stuff that whoever could have written, then you might find more sources for it." Here they argue that although digital resources can be incorrect or due to different circumstances, because of the amount available students who are aware of the potential problems can avoid those. Additionally, the participant mentions that through digital resources,

students can find material that "is outside of standard-Japanese" such as other dialects or "things you shouldn't learn."

4.3.2.2 Pronunciation

As stated above in relation to learning from unreliable sources, participant 1 further argues that the foremost aspect of incorrect learning is pronunciation. "A fair amount of people gets a fairly weird pronunciation because they read and don't have anyone to read for them. I don't think that should be a problem since there is a lot to listen to [online]."

Some things are not achievable through technology as participant 6 argues: "it is often that if you just use technology for studying then it's always speech, [that] loses out, you aren't able with talk to people." To contrast, participant 6 mentions that while you can have conversations online, it is still not the same as talking with someone face-to-face. "You hear much better nuances, and how they pronounce words." Relating the difficulty with pronunciation if the student only uses technology:

> "I had a friend who sat a lot with Anki [flashcard application] and he only sat with Anki…, he said then that his vocabulary was the sickest, he knows so many words, so many kanji, but he can't speak. His speech has lost out."

The downside for participant 6, is thus that students are "not able to get all the aspects of knowledge out of the internet."

4.3.2.3 Sense of obligation

For participant 1 a downside with only using technology is that if the student then does not have a teacher, "motivation is not as high when you don't have someone who is actually teaching you." The participant relates this to feeling an obligation towards the teacher; "at least I, feel ..., that I need to learn what this person is trying to teach me." The feeling of obligation exists, while studying individually: "I often don't get as much done, since you just 'but it's only for my own sake, I can do this later. I have no deadline."

4.3.2.4 Search engine

While the search engine that most applications provide is convenient, the downside to it as participant 3 states, is that "the search engine will find every instance that the word appears but it doesn't – as far as I understood it or as far as I've experienced – there is no system in place for arranging them into usefulness." The problem here lies in that the instances mentioned might not be the most accurate word in Japanese, but the most accurate when translating, it according to the participant. "Then you ask a Japanese person 'do you use this word?' or 'do you use this kanji?' and then they will point to one at, maybe number five [fifth instance] and say 'this is the one you actually use.'" Further, the participant says that this type of search engine "while very

convenient…, it has led to a lot of homework being submitted with very strange vocab, and grammar, and sentences. It is also not useful in the grand scheme of things because you will most likely never use those words again."

4.3.2.5 Letting technology do the work for you

As mentioned previously in terms of the ability to search for Chinese characters, participant 4 denotes another angle: "A lot of people, even Japanese people, but especially foreign people use [and] we rely a lot on the Japanese keyboard, like its ability to trace kanji." The tracing mentioned here refers to "you write in hiragana [Japanese phonetic lettering system] and it will convert it to kanji," which lets the student to use phonetic compounds to produce words – the keyboard will then suggest which character to change the phonetic compound to. To this, the participant mentions two problems which are that "a lot of Japanese people are forgetting or not learning how to write kanji," and "foreigners not even bothering because there is no need to." Thus, the participant indicates a moving away from the need to learn how to write Chinese characters in Japanese – both for Japanese people as well as for Japanese language students. Speaking toward the same reasoning, participant 8 shares their experience of Chinese characters and technology:

> "You should write by hand, since I have learnt a lot from apps and dictionaries and such. So, I- when I sit with pen and paper, kanji aren't in my hand, the same way. So, I easily forget how to write them."

The participant indicates that the practice of writing Chinese characters has been neglected and the result is both in muscle memory as well as forgetting how they look. However, while writing Chinese character is a problem for the participant, the reading of Character once learned is not. The participant continues to add that technology has also helped in reading books as it provides convenient tools such as dictionaries where the student can search for unknown language items, compared to browsing through books. However, this creates a problem for the student, as the participant puts it: "I also think that sometimes when I write, I rely a lot on the dictionary so that if I instead of thinking a little bit more, I bring up my phone and look up the word." Further the participant states "while I could just think a bit more…, So, I become a bit dependent on the dictionary in the phone, even though I don't need to be - especially when I write kanji."

Again, participant 4 relates the need to read Chinese similarly by saying "you don't have to learn to read either because you can use reading applications, or you can go online and you can use plugins on your web-browser." Here the participant indicates that there are various means to read Japanese without reading Chinese characters. While it is convenient "it doesn't cultivate the same amount of learning as just analogue methods," which can be problematic for students in terms of language acquisition. Contrastively, by not using technological methods for learning, students "have to know everything by yourself and also apply it frequently." Although, the participant adds to it by

saying that if students only rely on technology, then students will not maintain their proficiency "and you will most likely not reach the same level of proficiency as you otherwise would." In terms of overreliance on technology, participant 4 mentions that technology has become more common in society and that it has become easier "to go the easy way, rather than trying to take the long route."

"You don't have to be tied to technology; you can learn in so many ways." (Participant 5, personal communication, 2018)

4.3.2.6 Smoothing out the curve

Technology provides a smoother start to learning Japanese which is very complicated for westerner language speakers. "We have no prior knowledge to characters or symbols or like the phonetic script system because we only rely on letters," which technology can afford tools such as applications for. "It smooths out the beginning curve [of learning Japanese], because otherwise it's a very steep beginning and then it's even steeper further on. Only the middle ground is pretty stable but with technology you can overcome the first hurdle much easier" (Participant 4, personal communication, 2018).

4.3.2.7 Varied quality

Pertaining to unreliable information is the varied quality of platforms (applications, websites) which participant 3 indicates is problematic for language students.

> "Maybe a problem with electronical resources that I have come across, is [that] the quality of electronical resources varies a lot. you can never be really certain when you get an application, if it's going to be fitted for what you want or need it to be. Or if the information you get is actually correct."

Furthermore, in most digital resources, students "will find some very big flaws or mistakes in terms of grammatical representation, or maybe cunty error." This will be "detrimental to the learning process" if students are learning from those applications or digital resources. Although, if there are downsides with technology, the participant states that "if there are, it's more of a system or the lack of some details" and if students who use these applications are aware of the potential problems then they can work around those problems.

> "I'm not saying an analogue dictionary is better, in fact, an analogue dictionary is more likely to become outdated…, with online resources you have the possibility to update it considerably as time and language moves on."

Additionally, the participant mentions that online resources is helpful as they can include "maybe lesser known words like slang or similar" which aids the student in their learning. Contrasting with analogue resources, the participant argues that a misconception is

that those are more valid than digital ones, “which to certain extent is true.” The extent is that published resources go through scrutiny and peer review and thus “is more likely to be exact.” The other side of the misconception that the participant argues, is that digital resources update and allows for varied vocabulary “that you may not see in coursebooks.”

4.3.3 Can technology be introduced into the classroom, and should it?

4.3.3.1 Informing learners

Participant 2, 6, 8, and 9, argue that informing learners of appropriate, available, digital resources that can help their studies is an important aspect of Japanese studies. “When I’m at the lesson I sit with apps and such, for example kanji-recognition or just vocabulary,” and participant 2 continues to argue that it would be good for students to be told about these possibilities. “When I try to think, I never received any information about this” and the participant goes on to state that they received information from other sources and thus use these tools, even during lessons. “Hy pathetically you could have lessons where you do exercises with these programs and such, but I don’t know if you have to go that far. Some might have needed it.” Through this, the participant raises that the need to be informed of what exists might be dependent on the student in question. As participant 6 argues: ”most of the time it is that you find it by yourself in the end either way.” While also stating that it could be good for students to be shown how and which digital resources work. Participant 9 also adds to the notion by saying that getting informed could be a virtue, while “otherwise it might take a bit more time if you are a beginner and are looking for a good Japanese dictionary online.”

> “I got mine [digital resources] quite early from senpais [upperclassmen] that introduced a bit of things and such. And that did help me.” (Participant 8, personal communication, 2018)

4.3.3.2 The virtue of student-teacher interactions

Overreliance on technology is an aspect that participant 3 pairs with student-teacher interactions, where they argue that “teachers as a human being has a lot more possibility to, sort of, engage a student personally,” which the participant continues to argue can “create a spark of passion” and drive the students motivation to learn Japanese. Not only the teaches is present in the notion that is described “they can benefit a lot from an interactive class where they can aid each other in learning as well as having a teacher who will guide them correctly. Participant 6 also indicates that interaction with teachers within the classroom is an important aspect, while arguing that technology within the classroom should not regress as there are possibilities for improvement of technology. Although, the balance between technology and teacher time is important.

"I still think that the interaction of having a teacher go through the homework together with the students in the classroom environment would be vital for learning" (Participant 3, personal communication, 2018). Continuing the same note, the participant argues that a teacher can provide nuanced feedback, while a computer gives binary correct and incorrect feedback – thus "the teacher can from an outside perspective can say that 'okay they made this mistake in thinking this.'" Furthermore, the participant states "I am very much for integrating technology while I also believe that a computer or a program will never be able to replace the meeting and the interaction that a teacher can have on a student." Again, relating back to the balance of technology, the participant argues "I think in moderation, is the key for technology within the classroom."

Participant 5, however, takes a position against technology within the classroom by saying that "for individual methodological learning technology is great, but if you learn together with other people, there must a contact [between students]. I think."

4.3.3.3 Unclear possibilities

Participant 4 and participant 7 are not sure whether technology should be implemented in the classroom.

> "I don't think it should…, but I'm not sure currently of how to do it well. Because the solutions that I know, the methods, the techniques, that I'm aware of are not very suitable for classroom techniques. So, I'm pretty doubtful." (Participant 4, personal communication, 2018)

While participant 4 talks about the suitability of technological methods, participant 7 states that "I am personally not a bit fan of having a lot of mobile phones present when studying," linking it to lower productivity if students "just stare at their own screens." Furthermore, the participant states that technology that would be implemented would need to have the student's attention.

4.3.3.4 Digitalization within the classroom

Participant 1 refers to that state of classrooms today where PowerPoints are used which make it easy for the student to look at notes that the teacher has already mentioned. I relation to this, the participant mentions that taking down notes during class is difficult for them and with PowerPoints available, it is easy to remember what was said during lessons while looking at the correlating slides of the PowerPoint.

"Absolutely, it can be improved, and it can possibly be implemented [in the classroom] more but it is not necessary." (Participant 6, personal communication, 2018)

4.3.4 Can technology take an auxiliary role in homework, and should it?

4.3.4.1 Digitalization of homework

”I have an electronic dictionary as well that I got later from a senpai [upperclassmen], but I haven’t used that one as much since I was already used to my…, other system which I’ve had from the start, kind of.” Continuing, participant 8 argues that it has increased effectivity and has made it easier to remember language items.

Instead of giving out handouts – paper-based exercises – “you could receive a PDF. A file that you can write in,” which would allow the student to dictate their own method of learning, as participant 1 argues. Here the participant continues by providing an example where a teacher used an online educational platform called Edmodo; “she gave us an exercise to write a short story [in Japanese]. This [exercise] we had to send from a computer instead, and I think it is so much better.” According to the participant, it was better because of the length of the exercise which would be “torture,” to write by hand.

> ”I think using technology to integrate it with homework is something that is very much possible at this point in time and should also be one of the most common things because a point now with teaching [Japanese] …. There’s a lot of vocab.” (Participant 3, personal communication, 2018)

So, the participant argues that technologies should be present in homework, which they further argue is because teachers’ time when correcting homework could be mitigated and thus the time “could potentially be used for other things, such as planning for different lessons.” Furthermore, technology could provide automatic answers, and student could “quickly receive feedback on their progress and on their achievements in the field.”

“There’s already so much potential for it to be more, less paper-based,” teachers could keep track of statistical data to see what method is appropriate. Participant 3 ends the note with “So, I think, as for homework I see no reason why it shouldn’t be digitalized at this point.”

Participant 4 sees no reason as well why homework can’t be digitalized while sceptical to technology within the classroom. The cost is can be reduced for students who study since there are free digital resources available. While stating that acquiring an expensive electronical dictionary is optimal for the student, “it is much easier to get hold of base level things [digital tools].” While relying on a dictionary is advised against by the participant, “more technology with homework is, for the most part a good thing.” Further relating technology to sself study as ”a good thing”.

As participant 7 indicates: “I am sure digital books and resources are going to be used more or students are going to rely on them more,” which the participant further argues “I believe it [technology] has a big role already and I think it can of course have an even bigger role,” through “electronic dictionaries, kanji apps, dictionary websites.” The argument is thus that technology could and should be used in the context of homework since it already is present.

To contrast what participant 7 indicated and argued, participant 8 stated that as long as there are alternative solutions, it could work and be good in terms of minimizing the amount of paper. Furthermore, participant 9 argues similarly that “it is up to the student how they want to study. And I then I think that informing is enough.” The informing here is linked to the previous topic of informing learners, where the participant argues that that extent of digitalization is enough.

4.3.4.2 Kanji - Chinese characters

Writing Chinese characters is a lot easier to learn if students write it by hand is something that both participant 1 and participant 6 argues; “To be forced to write on paper is something that helps,” as participant 6 states that unless students write by hand - or on paper as they put it – it does not enter muscle memory since Chinese characters especially are very different from the alphabet. Participant 1 adds to it by saying that it is easier to learn when writing by hand when learning Chinese characters. Furthermore, states that they use a whiteboard since the participant can erase whatever is written.

4.3.4.3 Forced methods

Some participant mentioned that forcing students to use digital resources or methods would either be limiting - in terms of learning – for the student, or that students would find their own means of studying either way, as the next citation describes:

> ”Everyone has their way of learning language, right? if it would be that the classroom was in a certain way, there’s always the possibility to fix it and find your own way – outside of the classroom.” (Participant 5, personal communication, 2018)

The argument by participant 5 is that while specific methods are used within classrooms, student can find methods outside that suit them. As participant 2 put it:

> “I don’t think you should force people to use these [digital methods]. People find their own ways; some might go the analogue route with dictionaries and such. But I think that most would have thought it would be a bit annoying to get an assignment to ‘now you’re going to use this program.’ As in the previous question: I think that informing that it

[digital resources] exist and ‘this can be helpful,‘ and maybe show a bit how it can be used. I think that is ample.”

4.3.5 Usage of technology between the 'successful' and the 'not as successful' student

4.3.5.1 The learner’s needs

As mentioned previously in below different topics in this chapter; the need for students to choose methods that suit them has been brought up during the interviews as an important aspect to technology in learning Japanese. Among the participants who advocate for this is participant 1 who puts it: “Because there [methodologies] is so individual, that you would learn better from using another method I think depends from person to person.” Further, the participant articulates that whether or not a student uses paper or technology “depends entirely on the student’s abilities.” The participant also relates choice of methods to how ”some have - just like music and everything else – it is easier to pick up specific sound and melodies and stuff. Some have it more difficult than others.” What the participant means is that students have different abilities that cater to different methodologies. Thus, it is important for students to be able to choose the means of their liking. Furthermore participants 2, 6, 7, 8, 9 advocates that the most effective methods for Japanese learners, are those that suit the individual.

Participant 2 agrees that there is larger difference, it depends on the student. “If you look at some people that you consider to be really good in the class, I know that there are those that don’t use a single technology at all.” Further arguing to the point that it is important that the methodologies is appropriate for the student. However, the participant also indicates that technology might have a larger impact on students who have a difficult time studying. Arguing that technology can have good effects on those that are not good at studying.

”I think that’s one of the luxuries of today’s society is that we have the possibility to adapt our learning to the way we learn best,” furthermore stressing that some students “require more use of technology,” technology and some students “respond better to the use of technology,” as the difference between the successful student and a non-successful student. Finding the most suitable method for a student will make them more effective and they can therefore potentially learn more.

Relating to before the presence of technology in Japanese studies, participant 6 argues that the process of learning is more streamlined; “it demanded so much more time, so it’s probably a lot more effective when studying.” While asserting that studying with technology is more effective, the participant states that there is no right or wrong between using technology and not; “I think it’s only two different roads, and both can be as good [as the other], but one way is probably easier.

4.4 DISCUSSION

The discussion into technology in the context of learning Japanese is arguably appropriate in time. Students use and are almost always in contexts where technology is present, and the use of technology within Japanese seems to be growing. While the Japanese pop-culture has become popular in western countries, so has the Japanese language. The means of finding Japanese pop-culture is tied to the geographical distance between Japan and countries in the west; it is difficult to reach Japanese pop-culture without the use of technology. The growing interest into Japanese and its pop-culture has brought along engaged facilitators of learning aids in the form of technology. The argument for why technology is a part of the JLC can be many. The participants have raised various reasons as to why and they are probably correct. The people who practice Japanese are driven and engaged in the language and its culture. There are many resources available that are aimed at different types of learning. So, the amount of resources available can also be an argument for the same question.

If technology is good for learning is another aspect, one that is more related to the student in question rather than by itself. The participants in this study relate this to that technology is and can be a very good tool that streamlines learning and facilitates learning wherever the student is. However, it can also be destructive for the student when there is overreliance of technology. The argument here is that teachers are valuable as they guide students through their learning by providing feedback and structuring the process. Contrastively, as mentioned earlier, the amount of digital resources affords students to find tools that suit them, but with that abundance of those resources comes unreliable information. Unreliable information can result in hamstring student learning as well as disrupting it by providing misinformation. However, to that extent, some participants argue that the problem is avoidable – to some degree – by students being aware of the potential problem. Students who are aware that some digital resources are unreliable, can avoid misinformation by fact-checking and using different sources of information. Furthermore, paper-based dictionaries, teaching and learning material are published and trusted are however characterized as slightly problematic. This is because they are not updated as often as digital resources tend to be. Digital resources can provide more material, and more varied material such as dialects and slang.

It is difficult to say what can and if it should be introduced in the classroom. Technology provides resources that often in turn provide autonomy. However, autonomy in the classroom is not what learners want. In the classroom, the teacher to student interaction is valuable. Old fashioned methods are what learners wish to have, there is no need - or it is difficult to see – reasons for why technology within the classroom can be positive and what it can bring for the learners and teaches. A potential problem with introducing technology in the classroom is that it might divide the learners attention from the teacher to the technology. A teacher's time is valuable for a learner and the time spent in the classroom should be focused on the teacher and what the teacher asks of the learner.

Although, there are a few ways that technology can enter the classroom. one is that a teacher can inform the learners of the tools available to Japanese learners. Which are good and which are used by other students. Potentially, how to use them could even be taught.

Technology is not only a tool, but also a means for storage. Information can be stored and organized according to the user to be accessible. Software is often designed to save information. This can be in past searches or new vocab. Therefore, its organizational capacity is another aspect to keep in mind.

A learner who focuses solely on technology might lose out on interaction between teacher and student, which, can leave the learner with close to zero pronunciation input. However, resources are available for pronunciation, and there are also resources that provide communication with natives. Lastly another downside is mentioned, which is the sense of obligation. This obligation is a product from meeting with teachers who dedicate time for the learner. Therefore, a sense of obligation to fulfil deadlines and language goals are produced.

The potential for students to use the tools that they prefer is valuable since not all learners are alike. Another potential is that teachers can use technology to save time which can be used in other ways. The specific example used in this thesis is correcting homework, and it is something that should be explored. Lastly, it can be problematic to practice kanji through digital homework. This is because practicing kanji often requires the learner to practice by hand. This can be difficult with digitalized homework, but not impossible. Each learner is different in how and when they use technology, it is important to understand that one learner's learning style is different from another's. So, the important aspect of technology in learning is that each learner may require different amounts of technology. It is important to find what suits the learner so that they can learn as efficiently as possible.

5 DISCUSSION

Japanese language studies have many resources available in the form of technology and it is very much used by the students. Primarily it is websites and applications that appear to be the platforms for tools in Japanese language studies. The tools that are used mostly focus on skills like vocabulary, grammar, reading, and kanji. While it is focused on those skills, there are resources that focus on Speaking. The survey investigates the phenomenon of technology in Japanese learning and its research presents that students use technologies for forwards their knowledge through purposeful tools. It provides a picture of what and how it is used. It also investigates a related area which is media. In the same way, it investigates the phenomenon and provides a picture of what and how the participants use it. Furthermore, traditional methods also provide a picture of how things that have existed for a longer time is used, and if and how its digital counterparts are used. The survey has provided evidence that all these areas are used for Japanese language studies. With the phenomenon determined, another question is left. Why? This question is central to the qualitative interview which also touches on how learners feel about technology in relation to the classroom, homework, and how it correlates to success in language learning. Furthermore, negative and positive aspects of technology in Japanese language learning is investigated. So, why is technology used in Japanese language studies? Well, many reasons point towards a portal provided by Japanese pop-culture, other point toward the amount of online resources available for Japanese - which is a language very far from those that are the participants' native languages. So, the incentive is that there seems to be a link between Japanese language studies and pop-culture. Further, the resources available seem to be more vast than non-technological resources that are available.

In the literature, mobile learning is raised – not as a technology but – as a learning taking place anytime and anywhere. The notion goes in line with the resources available for technology that moves material from the classroom. However, it is important to remember that technology like smartphones can utilize students' surroundings with which learners can receive context-based learning. Furthermore, student autonomy is described in the literature as a need for students of Japanese to be autonomous in their learning. Digital tools can provide autonomy is they are aware of the potential problems and keeping them informed is important. Context-based learning – if such material is used – can potentially make students more autonomous, which further argues toward the relevance of technology in Japanese language studies.

There are risks and problems with technology. Much lies in the reliability of the sources, but there are also risks in how technology is handled. The risks for the learner who misuses technology are that they can halt or regress in their progress because of over reliance, they can lose out on valuable interaction in the TL which can lead to loss of pronunciation input. Contrastively, the risks are met with potential gains such as more efficiency in the learning process, and large amounts of

varied information that has the potential to give deeper meaning to the learners understanding of the language.

There is a difference in how technology can be incorporated in learning. These are between classroom teaching and homework or self-study. The classroom has a focus on student-teacher interaction with can be lost with the use of technology. Contrastively, homework and self-studies focus on autonomy which technology can potentially provide. At the same time, it needs to be kept in moderation, each student has different learning styles that suit them. It is however important for each learner to find what they are comfortable with and suits their learning style. Furthermore, the background on IDs argues towards that learning styles differ, and there is no one size fits all when it comes to teaching.

6 CONCLUSION AND FURTHER RESEARCH

The purpose of this thesis has been to develop an understanding on the state of technology in learning, as well as its usage. The data collected has shown that there is a phenomenon of technology in Japanese studies, how students use it, and why they use it. Furthermore, the thesis has collected data on how technology can help, as well as, what some of the less prosperous factors are. Because of the amount of literature surrounding technology in learning is minimal, the scope of the thesis has been broad. Despite this, it is important to acknowledge how technology affects Japanese studies.

With the help of a quantitative survey and qualitative interview, the research suggests that technology is used to large extent in Japanese studies. The research also suggests that the learner can be helped by being introduced to technology in the start of their language journey. Depending on the student, the level of methods that should be applied is dependent on what the student's learning style is. Furthermore, each student is different, therefore it is important to acknowledge the individual differences, and facilitate ways in which each learner can find methods that will help the learner in autonomy.

More research is needed on how technology affects the language student. Although, there are a few researchers (see Pachler et al., 2010; Chapelle et al., 2017; Kukulska-Hulme et al., 2017) who research it, there is still a lot of research to be done. Further research into how different technologies affect Japanese language learning, as well as how media affects Japanese language learning would be interesting.

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APPENDIX

INTERVIEW QUESTIONS

From my research, there is evidence of technology being used frequently in Japanese language studies. Why do you think that is?

What are the downsides and upsides with technology in Japanese language studies?

How could technology be introduced into the classroom and should it? (aside from what already is being used, i.e., audiotapes, computer rooms)

How could technology be combined or take an auxiliary role in homework, and should it?

Is there a difference in the usage of technology between the 'successful' and the 'not as successful' student?

What is missing in technology today in Japanese language studies?

Anything else?

SURVEY QUESTIONS

Technology in learning Japanese

In this survey I wish to study how learners of Japanese utilize technology in their studies.
The survey will take roughly 7-15 minutes to complete and has been divided into Six parts (this part, technology, media, traditional methods, skills and closing questions).
All the collected data will be kept anonymous and will be used for a bachelor thesis, on the topic of how technology is being used in Japanese studies.

Thank you for participating!

*Required

1. **Age?** *

2. **Gender?** *
   Mark only one oval.
   - ◯ Transcript
   - ◯ All of the above
   - ◯ Other: _____

3. **Where have you studied Japanese?** *
   (School)

4. **Additional school(s) (if applicable)?**

5. **What year did you start studying Japanese?** *

6. **Years of (actively) studying Japanese?** *
   (actively, in the sense that studying Japanese has been the primary occupation)

7. **Year of graduation from Japanese studies (if applicable)?**

8. **Have you lived in Japan?** *
   Mark only one oval.
   - ◯ Yes
   - ◯ No

9. **If you answered 'Yes', for how long did you live in Japan?**

10. **JLPT score (if applicable)?**
    (JLPT = Japanese Language Proficiency Test)

Technology 1

In this chapter I ask about using technology in relation to Japanese studies. So please answer with that in mind.

11. **Do you use smartphone/tablet applications(apps) to help you in your studies?** *
    Mark only one oval.
    - ◯ Yes
    - ◯ No *Skip to question 19.*

Smartphone/tablet applications(apps)

12. **Which do you use?** *
Tick all that apply.

- [ ] Smartphone
- [ ] Tablet
- [ ] Both

13. **What type of app(s)?** *
Tick all that apply.

- [ ] Flashcard
- [ ] Dictionary
- [ ] Reading
- [ ] Kanji-lookup
- [ ] Example sentences
- [ ] Other: _____

14. **When do you use this/these app(s)?** *
Tick all that apply.

- [ ] As homework
- [ ] In class
- [ ] In my free time
- [ ] Other: _____

15. **Plese write the name of your most frequently used app.** *

_____

16. **Plese write the name of your second most frequently used app.**

_____

17. **Plese write the name of your most frequently used app.**

_____

18. **How often do you use this/these app(s)?**
Mark only one oval per row.

	Every day	Two to five times a week	Once a week	Less than four times a month	Never
Most frequently used app	◯	◯	◯	◯	◯
Second most frequently used app	◯	◯	◯	◯	◯
Third most frequently used app	◯	◯	◯	◯	◯

Technology 2

In this chapter I ask about using technology in relation to Japanese studies. So please answer with that in mind.

19. **Do you use computer programs and/or websites to help you in your studies?** *
(Excluding smartphone/tablet apps)
Mark only one oval.

- ◯ Yes
- ◯ No *Skip to question 27.*

Computer programs and/or websites

20. **Which do you use?** *
Tick all that apply.

- [ ] Program(s)
- [ ] Website(s)

21. **What type of program(s) and/or website(s)?** *
Tick all that apply.

- [ ] Flashcard
- [ ] Dictionary
- [ ] Reading
- [ ] Kanji-lookup
- [ ] Example sentences
- [ ] Other: _____

22. **When do you use this/these program(s) and/or website(s)?** *
Tick all that apply.

- [ ] As homework
- [ ] In class
- [ ] In my free time
- [ ] Other: _____

23. **Plese write the name of your most frequently used program/website.** *

_____

24. **Plese write the name of your second most frequently used program/website.**

_____

25. **Plese write the name of your third most frequently used program/website.**

_____

26. **How often do you use this/these program(s)?**
Mark only one oval per row.

	Every day	Two to five times a week	Once a week	Less than four times a month	Never
Most frequently used program/website	◯	◯	◯	◯	◯
Second most frequently used program/website	◯	◯	◯	◯	◯
Third most frequently used program/website	◯	◯	◯	◯	◯

Technology 3

In this chapter I ask about using technology in relation to Japanese studies. So please answer with that in mind.

27. **Do you use an electronic dictionary and/or any other device to help you in your studies?** *
Mark only one oval.

- ◯ Yes
- ◯ No *Skip to question 32.*

Electronic dictionary and/or other device

28. **Which?**
Tick all that apply.

- [ ] Electronic dictionary
- [ ] Other device

29. **If other device, please state what device**

_____

30. **When do you use an electronic dictionary?** *
Tick all that apply.

- [ ] As homework
- [ ] In class
- [ ] In my free time
- [ ] Other: _____

31. **How often do you use an electronic dictionary and/or other device?** *
Mark only one oval per row.

	Every day	Two to five times a week	Once a week	Less than four times a month	Never
Elecrtonic dictionary	◯	◯	◯	◯	◯
Other devicce	◯	◯	◯	◯	◯

Media 1

In this chapter I ask about using media in relation to Japanese studies. So please answer with that in mind.

32. **Do you watch TV, movies and/or play games to help you in your Japanese studies?** *
Mark only one oval.

- ◯ Yes
- ◯ No *Skip to question 39.*

TV, movies and/or games

33. **Which?**
Tick all that apply.

- [ ] TV
- [ ] Movies
- [ ] Games

34. **What do you watch/play?** *
(Genre)
Tick all that apply.

	Comedy	Romance	Action	Slice of life	Sience Fiction/fantasy	Role Playing Games	Strategy/Simulation	Drama	Thriller/horror	Other	None
TV/movies	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Games	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

35. **If 'Other', please state what genre.**

_____

36. **How do you watch/play?** *
Tick all that apply.

- [ ] With Japanese subtitles
- [ ] With Japanese audio
- [ ] Other: _____

37. **When do you watch TV/movies and/or play games?** *
Tick all that apply.

- [ ] As homework
- [ ] In class
- [ ] In my free time
- [ ] Other: _____

38. **How often do you watch TV/movies and/or play games?** *
Mark only one oval per row.

	Every day	Two to five times a week	Once a week	Less than four times a month	Never
TV	◯	◯	◯	◯	◯
Movies	◯	◯	◯	◯	◯
Games	◯	◯	◯	◯	◯

Media 2
In this chapter I ask about using media in relation to Japanese studies. So please answer with that in mind.

39. **Do you listen to radio, podcasts and/or music to help you in your Japanese studies?** *
Mark only one oval.

◯ Yes
◯ No *Skip to question 44.*

Radio, podcasts and music

40. **Which?** *
Tick all that apply.

☐ Radio
☐ Podcast
☐ Music

41. **What do you listen to?** *
Tick all that apply.

☐ Rock
☐ Metal
☐ J-rock
☐ Rap/hip-hop
☐ Pop
☐ Jazz
☐ Indie
☐ Other: _____

42. **When do you listen to radio, podcasts and/or music?** *
Tick all that apply.

☐ As homework
☐ In class
☐ In my free time
☐ Other: _____

43. **How often do you listen to radio, podcasts and/or music?** *
Mark only one oval per row.

	Every day	Two to five times a week	Once a week	Less than four times a month	Never
Radio	◯	◯	◯	◯	◯
Podcasts	◯	◯	◯	◯	◯
Music	◯	◯	◯	◯	◯

Traditional methods 1
In this chapter I ask about using traditional methods in relation to Japanese studies. So please answer with that in mind.

44. **Do you read books, comics, news and manga to help you in your Japanese studies?** *
Mark only one oval.

◯ Yes
◯ No *Skip to question 50.*

Books, comics, news and manga

45. **Which?** *
Tick all that apply.

- [ ] Books
- [ ] Books (digital)
- [ ] Comics
- [ ] Comics (digital)
- [ ] Manga
- [ ] Manga (digital)
- [ ] News
- [ ] News (digital)

46. **What do you read?** *
(genre)
Tick all that apply.

	Action	Short stories	Fantasy/Science fiction	Romance	Slice of life	Thriller/Horror	History	Economics	Politics	Other	None
Books	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Comics	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Manga	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
News	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

47. **If 'Other', please state what genre.**

_____

48. **When do you read?** *
Tick all that apply.

- [ ] As homework
- [ ] In class
- [ ] In my free time
- [ ] Other: _____

49. **How often do you read?** *
Mark only one oval per row.

	Every day	Two to five times a week	Once a week	Less than four times a month	Never
Books	◯	◯	◯	◯	◯
Comics	◯	◯	◯	◯	◯
Manga	◯	◯	◯	◯	◯
News	◯	◯	◯	◯	◯

Traditional methods 2

In this chapter I ask about using traditional methods in relation to Japanese studies. So please answer with that in mind.

50. **Do you write in Japanese to help you in your Japanese studies?** *
Mark only one oval.

- ◯ Yes
- ◯ No *Skip to question 55.*

Writing

51. **How do you write?** *
Tick all that apply.

- [ ] Digitally (e.g., laptop, PC, smartphone)
- [ ] By hand
- [ ] Other: _____

52. **What kind of text do you write?** *
Tick all that apply.

- [ ] Short story
- [ ] Diary/Blog
- [ ] Essay/Article
- [ ] Notes
- [ ] Other: _____

53. **When do you write?** *
Tick all that apply.

- [ ] As homework
- [ ] In class
- [ ] In my free time
- [ ] Other: _____

54. **How often do you write?** *
Mark only one oval per row.

	Every day	Two to five times a week	Once a week	Less than four times a month	Never
Digitally	◯	◯	◯	◯	◯
By hand	◯	◯	◯	◯	◯

Traditional methods 3

In this chapter I ask about using traditional methods in relation to Japanese studies. So please answer with that in mind.

55. **Do you use a physical dictionary to help you in your Japanese studies?** *
Mark only one oval.

- ◯ Yes *Skip to question 56.*
- ◯ No *Skip to question 58.*

Physical dictionary

56. **When do you use a dictionary?** *
Tick all that apply.

- [ ] As homework
- [ ] In class
- [ ] In my free time
- [ ] Other: _____

57. **How often do you use a dictionary?** *
Mark only one oval.

- ◯ Every day
- ◯ Two to five times a week
- ◯ Once a week
- ◯ Less than four times a month
- ◯ Never

Traditional methods 4

In this chapter I ask about using traditional methods in relation to Japanese studies. So please answer with that in mind.

58. **Do you use textbooks and/or workbooks to help you in your Japanese studies?** *
Mark only one oval.

- ◯ Yes *Skip to question 59.*
- ◯ No *Skip to question 63.*

Textbooks and workbooks

59. **Which?** *
Tick all that apply.

- [ ] Textbooks
- [ ] Workbooks

60. **What type of textbooks and workbooks do you use?** *
Tick all that apply.

- [ ] All-encompassing textbook and workbook (e.g., Genki, Tobira)
- [ ] Kanji textbook and workbook
- [ ] JLPT grammar and vocab preparation
- [ ] JLPT kanji preparation
- [ ] Business Japanese textbook and workbook
- [ ] Other: _____

61. **When do you use textbooks and workbooks?** *
Tick all that apply.

- [ ] As homework
- [ ] In class
- [ ] In my free time
- [ ] Other: _____

62. **How often do you use textbooks and workbooks?** *
Mark only one oval per row.

	Every day	Two to five times a week	Once a week	Less than four times a month	Never
Textbooks	◯	◯	◯	◯	◯
Workbooks	◯	◯	◯	◯	◯

Traditional methods 5

In this chapter I ask about using traditional methods in relation to Japanese studies. So please answer with that in mind.

63. **Do you communicate with people in Japanese to help you in your Japanese studies?** *
Mark only one oval.

- ◯ Yes *Skip to question 64.*
- ◯ No *Skip to question 68.*

Communicate

64. **To whom?** *
Tick all that apply.

- [ ] Friend
- [ ] Partner
- [ ] Teacher
- [ ] Language partner
- [ ] Other: _____

65. **How do you communicate?** *
Tick all that apply.

- [ ] One on one conversation
- [ ] Handwritten mail
- [ ] Gathering (e.g., party)
- [ ] Texting (SMS)
- [ ] Voice call
- [ ] Email
- [ ] Other: _____

66. **When do you communicate?** *
Tick all that apply.

- [ ] As homework
- [ ] In class
- [ ] In my free time
- [ ] Other: _____

67. **How often do you communicate?** *
Mark only one oval per row.

	Every day	Two to five times a week	Once a week	Less than four times a month	Never
Physically (e.g., one on one, handwritten mail, gathering)	◯	◯	◯	◯	◯
Digitally (e.g., voice call, texting)	◯	◯	◯	◯	◯

What skills do you hope to improve?

68. **Technologies** *
Tick all that apply.

	Grammar	Vocabulary	Reading	Writing	Listening	Speaking	Kanji (Chinese characters)	I don't use this
Computer programs	☐	☐	☐	☐	☐	☐	☐	☐
Websites	☐	☐	☐	☐	☐	☐	☐	☐
Apps	☐	☐	☐	☐	☐	☐	☐	☐
Electronic dictionary	☐	☐	☐	☐	☐	☐	☐	☐
Other device	☐	☐	☐	☐	☐	☐	☐	☐

69. **Media** *
Tick all that apply.

	Grammar	Vocabulary	Reading	Writing	Listening	Speaking	Kanji (Chinese characters)	I don't use this
TV, Movies and/or Games	☐	☐	☐	☐	☐	☐	☐	☐
Radio, podcasts and/or Music	☐	☐	☐	☐	☐	☐	☐	☐

70. **Traditional technologies** *
Tick all that apply.

	Grammar	Vocabulary	Reading	Writing	Listening	Speaking	Kanji (Chinese characters)	I don't use this
Books, Comics, News and/or Manga	☐	☐	☐	☐	☐	☐	☐	☐
Writing	☐	☐	☐	☐	☐	☐	☐	☐
Physical dictionary	☐	☐	☐	☐	☐	☐	☐	☐
Textbooks and/or workbooks	☐	☐	☐	☐	☐	☐	☐	☐
Communication	☐	☐	☐	☐	☐	☐	☐	☐

Closing Questions
You are almost done!

71. **Has the technology and media that you have answered 'Yes' on helped you in your studies?** *
Mark only one oval.

- ◯ Yes
- ◯ No
- ◯ Maybe
- ◯ I answered 'No' on all of them
- ◯ Other: _____

72. **How did you find the technology and/or media that has helped you in your studies?** *
Tick all that apply.

- ☐ Through friends
- ☐ Through teachers
- ☐ Internet
- ☐ Commercial
- ☐ I never found any
- ☐ I did not know there were any
- ☐ Other: _____

73. **Do you think there is a need to be provided with examples of helpful technology and/or media, by teachers and/or upperclassmen to help you in your studies?** *
Mark only one oval.

- ◯ Yes
- ◯ No
- ◯ Maybe
- ◯ Other: _____

74. **If 'Yes', do you think it would have helped you in your studies?**
Mark only one oval.

- ◯ Yes
- ◯ No
- ◯ Maybe

75. **Any comments?**

_____

_____

_____

_____

_____

Final Questions

This part of the survey is about further participation where I would like to carry out an interview.
The data from the interview will be kept anonymous and will be used in the essay to provide a deeper understanding of how learners of Japanese utilize technology in learning.

76. **Would you like to participate in an interview?** *
The interview will be covering the same topic, however, the questions will be open and you will be free to tell me of your own experiences. The interview will take around 20-30 minutes.
Mark only one oval.

- ◯ Yes *After the last question in this section, skip to question 78.*
- ◯ No *After the last question in this section, stop filling in this form.*

77. **If yes, are you based in Malmö, Lund? If not, please provide me with a location, if possible.** *
Tick all that apply.

- ☐ Malmö
- ☐ Lund
- ☐ All of the above
- ☐ Other: _____

Thank you!

78. **Please provide an e-mail address for the interview.** *

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