Abstract
This study investigates how students of the Japanese language regulate the learning of kanji (Japanese written characters). Skill in reading kanji has an important effect on learners' progress in interpretive reading. Data collected over one year were drawn from interviews with 12 students. The study highlighted an inability for many students to control emotions, manage commitments and control boredom and procrastination when studying kanji. Moreover, it was found that advanced learners were more prone to a loss of self-regulation due to frustration caused by a lack of progress in learning, or self-criticism over an inability to reach goals. This study raises our understanding of struggles faced by language learners, and offers pedagogical implications for teachers to lessen the burden of kanji learning on students.
INTRODUCTION

Interest in learning Japanese grew dramatically in the 1980s and 1990s due to Japan’s economic success (Bramley and Hanamura, 1998; Komiya-Samimy and Tabuse, 1992) and there continues to be steady growth in the number of students traveling to Japan to undertake university-level study. The number of foreign students studying in Japan grew from 10,000 in 1983 to 121,812 in 2005 (Guruz, 2008), and a recent initiative by Japan’s Ministry of Education plans to increase the number of foreign students in Japanese universities to 300,000 by the year 2020 (Shimauchi, 2009).

Despite this surge in interest in Japanese language and culture, a number of studies have explored students’ difficulty learning Japanese. Hatasa (1989) and Dwyer (1997), for example, have found that university students of Japanese reach benchmark levels of proficiency more slowly than students of other more commonly taught languages. Walton (1993) reported that native English-speaking students of Japanese require three times as long to acquire the same level of proficiency as students of French, German or Spanish.

It has been hypothesized that their insufficient knowledge of kanji prevents them from engaging in interpretive reading as frequently as students of more commonly taught languages (Dwyer, 1997). It is widely documented that Japanese foreign language learners struggle with the mastery of kanji, particularly if their first language’s script is alphabetic (see Bourke, 1996; Dwyer, 1997; Everson, 2011). Over the past 20 years, there have been a number of key studies that have examined the learning strategies students bring to the kanji learning task, including for example, studies that examined kanji recall (Dwyer, 1997; Okita, 1996), strategies students use to memorize kanji (Bourke, 1996; Lu, Webb, Krus and Fox, 1999; Toyoda, 1998; 2000; Toyoda and Kubota, 2001), and kanji instruction (Flaherty and Noguchi, 1998; Kato, 2002; Shimizu and Green, 2002). These studies suggest that students of Japanese need assistance to overcome such a barrier to literacy (Bourke, 1996; Usuki, 2000).

Recent research also suggests that researchers examine the extent to which learners are proactive in controlling their own language learning experiences (Dörnyei, 2001; 2005; Tseng, Dörnyei and Schmitt 2006). In 2005, Dörnyei developed a taxonomy of self-regulation which was intended to re-theorize language learning strategies (see Dörnyei 2005; Tseng et al., 2006) as well as broaden the perspective of future research into this field (Gao, 2006). Dörnyei’s (2005) model of self-regulation consists of five categories of control:

1. **Commitment control strategies** for helping preserve or increase the learner’s goal commitment.
2. **Metacognitive control strategies** for monitoring and controlling concentration and for curtailing unnecessary procrastination.
3. **Satiation control strategies** for eliminating boredom and adding extra attraction or interest to the task.
4. **Emotion control strategies** for managing disruptive emotional states or moods and for generating emotions that are conducive to implementing one’s intentions.
5. **Environmental control strategies** for eliminating negative environmental influences by making an environment an ally in the pursuit of a difficult goal (Dörnyei, 2005, p. 113).

Because previous studies have suggested a relationship between language proficiency and strategy use (Bourke, 1996; Oxford, 2001), it was assumed that self-regulation during kanji learning might also differ as students’ proficiency increased: research into kanji learning has suggested that students from alphabetic language backgrounds encounter most difficulty at the beginning stages of kanji learning and it is at the
advanced stages that more strategies are observed (Bourke, 1996; Sayeg, 1996; Usuki, 2000). Thus, the study reported here aimed to answer the question: How do learners from alphabetic language backgrounds who are at different points in their study of Japanese regulate their learning of kanji in a year-long study program?

RESEARCH METHODS

Participants

Participants in the study were native speakers of a non-character language and had native or near-native proficiency in English; they were enrolled in a year-long exchange programs at one of two universities in the greater Tokyo area. Participants had three 90-minute instructional sessions per week focusing on spoken Japanese and Japanese grammar and a 90-minute class devoted to kanji learning. As is typical in Japan, the kanji classes focused on memorizing kanji compounds, kanji writing practice, and kanji review rather than on reading authentic texts including kanji. Participants were enrolled in the beginner course (knowledge of less than 350 kanji), intermediate course (350-750 kanji), or advanced course (more than 750 kanji) as determined by a kanji placement test based on the national Japanese Language Proficiency Test (JLPT) offered by The Japan Foundation.

Because “it is theoretically possible to be a ‘good’ beginner language learner and a ‘poor’ advanced learner” (Grenfell and Macaro, 2007, p. 15), the study adopted a maximum variation sampling strategy so as to compare self-regulation strategies and proficiency for both extreme (good) and deviant (poor) cases. 23 participants expressed interest in the study and were interviewed about their self-regulation of kanji learning (see appendix 1 for these questions). From this larger pool, the study purposively identified twelve participants including a possible extreme and deviant case at each proficiency level so as to gain the broadest picture of kanji learning, as shown in Table 1.

Table 1: Purposive sampling of participants

<table>
<thead>
<tr>
<th>Kanji knowledge</th>
<th>“Extreme” cases of high self-regulation</th>
<th>“Typical” cases</th>
<th>“Deviant” cases of low self-regulation</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>Sue</td>
<td>Alex, Joshua</td>
<td>Holden</td>
</tr>
<tr>
<td>Medium</td>
<td>Paul</td>
<td>Tim, Colton</td>
<td>Jeremy</td>
</tr>
<tr>
<td>Low</td>
<td>Sam</td>
<td>Kate, Zara</td>
<td>Maya</td>
</tr>
</tbody>
</table>

Data collection

Because aspects of self-regulation would not be easily or accurately measured in a single interview, or at a single time, participants were interviewed 10 times throughout the year in order to gain a fuller picture of each student’s self-regulation of kanji learning. The interview questions were based on data obtained from focus groups with two groups of five students the previous year during a pilot study, mimicking the study by Tseng et al. (2006). Data from these focus groups were integrated into the taxonomy of self-regulation, also following the suggestions made in the Tseng et al. (2006) study. The interview questions were accompanied by follow-up probes that could be utilized by the researcher to encourage students to elaborate on their answers (see appendix 1 for questions and probes). Data from the interviews were coded using NVivo.
software and organized into appropriate categories and subcategories initially based on Dörnyei’s self-regulation taxonomy and expanded to also include the following additional themes: goals, procrastination, boredom, interest, stress, and place. The final network of codes is depicted in figure 1.

**RESULTS AND DISCUSSION**

A simple comparison summary of self-regulation for the 12 cases is presented in Table 2. The continuum shows highly self-regulated learners at the top and the learners who had difficulty regulating their kanji learning at the bottom. These summaries are based on both researchers’ independent assessments of ten interviews over the course of the year. The results for each of the self-regulation categories (commitment control, metacognitive control, satiation control, emotional control and environmental control) are presented below.

[INSERT TABLE 2 NEAR HERE]

**Commitment control and goal setting challenges**

Regarding kanji study, participants at higher levels of language proficiency found greater difficulty in meeting their commitments with kanji learning than did lower-proficiency learners. Data show that higher-proficiency participants tended to set long-term goals that involved the study and review of 1,000 to 2,000 kanji. Holden and Sue, for example, wanted to pass the Japanese Language Proficiency Test at level N1, for which they needed 2,000 kanji. Joshua also needed knowledge of a similar number of kanji to successfully graduate from his Master of Arts program. In all three cases, the students had great difficulty in attaining these goals because of the magnitude of the task and the limited time frame; they sometimes described the task as overwhelming. For the lower-proficiency participants, commitment to kanji learning remained minimal and short-term with more manageable goals, for example passing classroom kanji tests. Even though many of these lower-proficiency participants also had longer-term goals, repercussions for not reaching these commitments were not as immediate than for the higher-proficiency learners, whose education and future employment depended on their success. The overemphasis of kanji list learning, and kanji testing in the context being researched may stem from Japan’s strong exam culture, which Seargeant (2009) states is deep-rooted in the Japanese education system, and is incompatible with communicative approaches to language teaching. Certainly, the kinds of learning practices observed in this study involved the continuous learning and testing of kanji lists—mimicking practices in Japanese elementary schools. The participants’ kanji learning goals rarely centered on the reading process, or a stated desire to read authentic or adapted texts, which researchers have argued is paramount for Japanese reading development (Everson, 2011). In this context, it seemed the emphasis on list learning, as opposed to improving the reading process was bought to the forefront in the goals set by the students, and the review of these previously learned lists was what became overwhelming for the advanced students. Thus, a key finding of the study was that more advanced students lacked the ability to manage these commitments, due to the magnitude of their goals.

Two cases (Alex and Sue) handled commitment control by breaking kanji learning and review into regular self-study tasks; they also took part in a self-study kanji program covering sets of 100 kanji tested in monthly examinations. Although for the higher-proficiency students, these examinations were a form of reviewing previously learned kanji, participants reported that a regular review systems helped them to set shorter-term, manageable goals and gain control and confidence over the kanji-learning task. Such findings
concur with literature in the field of self-regulation and goal setting. In a study analyzing the impact of a self-directed program that was similar in organization to the self-study kanji program considered here, for example, Bandura and Schunk (1981) also found that learners who set short-term and specific goals made 50% more progress than learners with general goals or distant goals. Other literature emphasizes that breaking a goal into small achievable steps with clear deadlines is an essential part of goal setting (Dörnyei, 2001). Thus, these findings support notions of previous research that highlights the importance of short-term and specific goal setting for the language learner (Dörnyei, 2001; Bandura and Schunk, 1981).

**Emotion control challenges faced by the kanji learner**

As defined by Larsen and Prizmic (2004), emotion or affect regulation is the process of monitoring and evaluating feelings experienced by the learner at any given time. Breakdowns in emotional control can lead to episodes of depression and anxiety (Nolen-Hoeksema and Corte, 2004). The current study revealed a complex network of emotions, including self-criticism, frustration and defeatism that had an impact on kanji learning. The three most advanced learners (Holden, Joshua and Sue) all reported negativity over a self-perceived lack of progress in kanji learning and reported stress, frustration, self-criticism and defeatism. Holden openly discussed his decision to ‘give up’ on kanji learning because the constant review of kanji and a deterioration of knowledge seemed to have defeated him. Joshua also reported self-criticism at his inability to push through procrastination issues in the kanji-learning task as well as frustration over the constant review of kanji he had once learned but forgotten. Joshua also doubted his ability to master the number of kanji necessary to graduate. Sue, although still actively engaged in kanji study, also expressed defeatism in the kanji learning task, feeling that it was impossible to learn and remember all essential kanji and leading to a reassessment of the role of kanji in her future career. This lack of emotional control in higher-proficiency students might be connected to the magnitude of the kanji-learning task. Beginner level students studying a set number of kanji each week with regular structured assessments are able to clearly see their progression in kanji learning. At the higher-proficiency level, however, when students no longer have formal training of kanji or help reviewing thousands of kanji, the task seems daunting, their progress is not as obviously measurable, and emotion control breaks down.

**Satiation control challenges faced by the kanji learner**

The connection between proficiency and satiation control problems was particularly strong in this study. Of the twelve participants, the three highest proficiency students (Holden, Joshua and Sue) reported experiencing the most problems with satiation control, including difficulty controlling increasing boredom as well as diminishing satisfaction and waning interest in kanji learning as their kanji knowledge advanced and more review became necessary. Participants of lower proficiency reported satiation as a problem far less frequently. For Sam, one of the least proficient students, satiation control was not a challenge. On the contrary, Sam derived immense satisfaction from kanji learning due to self-driven historical and cultural interest in kanji.

A number of students suggested solutions to control interest in kanji study, such as moderating the time spent on studying or breaking a study session into smaller parts, with rewards for completion of each part. According to Larsen and Prizmic (2004), the use of self-reward is a common feature of behavioral approaches to self-regulation, including buying oneself a present (self-gifting) or taking a break and going for a walk (self-rewarding). Research has shown that use of self-gifting can reduce negative affect and increase positive affect associated with completion of a task or goal (Faber and Vohs, 2004). Participants in the current study reported multiple examples of self-rewards as a self-regulatory strategy, thus concurring with
general literature on the positive influence of self-rewarding as a means of self-regulation (Faber and Vohs, 2004; Larsen and Prizmic, 2004).

Other participants offered strategies that involved choosing or changing the study environment to maintain interest in the kanji-learning task. Paul reported studying kanji while exercising on an exercise bike or treadmill to be highly effective. In doing so, Paul argued the interest in kanji study increased in comparison with the boring nature of exercising. He also reported the benefits of adrenaline in decreasing stress, indicating the strategy to be effective for regulating emotional control. While these ideas might at first appear unorthodox, the use of exercise as means of self-regulation has been reported in research in the field. Larsen and Prizmic (2004) write: “It may seem ironic that the use of energy (to exercise) actually elevates energy, but the impact of exercise on affect and felt energy has been reliably demonstrated in a number of studies” (p. 48). A study by Stevens and Lane (2001), for example, found exercise to be an effective strategy for regulating depression, tension and fatigue. Thus, the finding of the current study that exercise is also an effective way to regulate boredom and control satiation is not dissimilar to these previously noted discoveries.

Environmental control and kanji learning
Whenever environmental control was raised in the interview data, it was presented as a means of regulating another form of control. Such results indicate that environmental control may not be a separate category of control in itself, but a self-regulatory mechanism or strategy to control other forms of regulation. In this capacity, the strategy of controlling one’s learning environment was shown to have extremely positive effects on a learner’s self-regulation. Participants, for example, reported regulating their study environment in order to alleviate boredom (by changing the study environment regularly), stress (by exercising while studying, or choosing a relaxing environment), or procrastination (by creating an environment free of distractions). For the learner’s perspective, therefore, environmental control shows an ability to positively affect a learner’s self-regulation, which has clear teaching and learning implications (discussed next). From a research perspective, this result is significant because the Tseng et al. (2006) study, on which this study is loosely based, suggests that their approach and model of self-regulation would be “transferable to researching other facets of second language learning” (p. 80). However, this study revealed that the inclusion of the category of environment control did not yield results in the same way as the other four categories for the task of kanji learning. This result also suggests that this model of self-regulation may be subject to the same definitional fuzziness for which Dömyei (2005) has criticized previous models of strategic learning (see Rose, 2012, for further discussion).

CONCLUSIONS AND PEDAGOGICAL IMPLICATIONS OF THE STUDY
Implications for Japanese language teachers
Shimizu and Green (2002) note that Japanese language teachers widely agree that kanji learning is an extremely difficult task for students. Beginner learners of Japanese are often oblivious to this difficulty, and instructors have to strike the right balance of being honest with students over the difficulty of kanji learning, while not dissuading them from their pursuit of Japanese language study. This case study has attributed part of the breakdown in self-regulation to the setting of unrealistic and unachievable goals in kanji learning. Many students expect to become fluent in the language after a few years of university study. This is perhaps due to comparisons with European languages, which the L1 English speaker is able to acquire more quickly
than the Japanese language. Students need to be aware that kanji learning is a life-long task, and that even L1 Japanese speakers spend nine or more years of formal education to achieve adult functional literacy.

This study has shown it is at the intermediate and advanced levels where students have the biggest breakdown of commitment control. This is due to progress being less obvious to the learner, as opposed to the beginning stages in which knowledge of kanji may double in a single semester-long basic or pre-intermediate Japanese language course, making it is easier to track progress. At the intermediate and advanced level, the responsibility to retain previously learned kanji as well as new kanji often shifts to the learner. For the advanced learner progress is not only less obvious, but can seem at times to be moving in the wrong direction, as previously known kanji become forgotten. Learners need to be systematic about their goals for kanji learning. According to McCombs and Pope (1994), a goal must be believable, achievable, conceivable and desirable. A breakdown in emotion control often stems from the fact that a goal no longer seems believable to a student, which manifests in a loss of self-efficacy. According to Zimmerman (2000) self-efficacy beliefs and goal setting are strongly connected. Achieving goals improves self-efficacy, and a higher self-efficacy influences good future goal setting. A student at times might set a goal that is only achievable in the long-term, such as mastering the 2,000 essential kanji, or passing the first-level of the Japanese Language Proficiency Test. Without short-term goals to measure progress toward this long-term goal, this goal will no longer seem achievable to a learner. Japanese language students, therefore, would benefit from more realistic, achievable and believable goal setting, which would reduce the negative affect associated with the failure to reach a goal.

The kanji instructor can help students overcome barriers associated with kanji learning from the outset of their program of studies. The instructor needs to be aware that frequent quizzes, while a necessary part of kanji learning, detract from the importance of maintaining knowledge of previously taught kanji and using kanji to read authentic and meaningful texts. Instructors could make use of assessment techniques that shift the focus from testing knowledge of new kanji through kanji quizzes to learning kanji for communicative purposes. Such purposes include reading for pleasure, reading to reinforce and increase content knowledge, and to learn about cultural practices, products, perspectives, and points of view and provide informal opportunities for review. Doing this also puts emphasis on the importance of the learning process and ultimate usefulness of kanji learning, rather than regurgitation of knowledge that often is crammed into short-term memory before a student takes a test, and then is soon forgotten. This study has also shown that controlling the environment can be a powerful strategy to improve a learner’s regulation over negative factors affecting learning. Japanese teachers are in a position to change the teaching and learning environment of a learner, through the provision of materials and assessment which are based on communicative pedagogical practices, rather than the rote memorization of kanji lists popularized by Japan’s examination culture. Everson’s (2011) call for the creation of more authentic reading materials aimed at varying proficiency levels in Japanese would prove as a useful practice for students to review previously learned kanji in a more realistic way. These actions will all help the learner to take more control over the negative emotion connected to kanji learning, because the value of what they know will be bought to the forefront, rather than what they have yet to learn.

The emotional toll of kanji learning for students is not a matter than should be treated lightly—nor is it a problem that is easily solvable. Japanese teachers are in a position to raise awareness that the learner’s struggles are a normal part of kanji acquisition. Everson (2011) argues “teachers serve as powerful purveyors of both language and culture, and can influence students’ views that their difficulties in learning
*kanji* are not because they are somehow ill-equipped for the learning task which is somehow beyond them*" (p. 265). Bandura (1986) argues that self-reflection and self-evaluation are key to the development of a healthy sense of self-efficacy. Zimmerman (2000) also stresses the importance of self-evaluation on self-efficacy beliefs. Thus, the act of having students measure and reflect on previous accomplishments and achievements rather than focusing on goals yet to be achieved can help the *kanji* learners’ emotional state.

Thus, the instructor can play an important role in avoiding breakdown of self-regulation in *kanji* learning, through discussing the difficulty of learning from the outset of their study of the Japanese language, by aiding students to set realistic short and long-term goals for their *kanji* learning, and by providing students with a systematic way to measure progress as well as use previously learned *kanji* in a meaningful way. The implications of the study firmly concur with Everson’s (2011) assessment that “getting to know our students and how they feel about learning these languages and what they believe the difficulties are will be helpful to remedy these problems” (p. 265). This study, therefore, increases our understanding of students’ feelings, struggles, and triumphs when learning the Japanese language.

**Conclusion and implications for further research**

This study was the first to examine the task of *kanji* learning through the theory of self-regulation and has implications for both theory and practice. In terms of theory, the framework of self-regulation has shown its strength in highlighting the difficulties students have when managing their learning of kanji, but it has also revealed a categorical fuzziness in terms of environmental control. Such a result has implications for future studies that apply Dörnyei’s model of self-regulation to other domains of language learning. In terms of practice, this group of learners revealed much about how students regulate their study of *kanji*. Interviews showed metacognitive, satiation and emotion control as particular areas that challenge students in the *kanji*-learning task. Interviews also highlighted a number of strategies that learners use to self-regulate the *kanji*-learning task, including the manipulation of the environment and methods of learning. The study also highlighted how level of commitment has an effect on satiation and emotional control, as does also the level of proficiency of the student. The study indicates that these are areas that may need to be addressed by both teachers and students in order to advance in the *kanji*-learning task. Without dealing with these issues, students such as the ones in this study may feel defeated by the magnitude of the task as their learning progresses.

**References**


Dwyer, E.S. (1997). *Getting started the right way: an investigation into the introduction of kanji study to neophyte Japanese learners*. PhD Dissertation, The University of Texas, USA.


APPENDIX 1 INTERVIEW QUESTIONS

The interview questions have been organized into main questions, which were always asked to all participants, and follow-up questions or probes used to elicit more information were necessary.

Part One (For initial interview only): These questions concern students’ past experiences of studying Japanese.

i. Can I first ask you about your Japanese learning background?
   a. Probes: How long have you studied Japanese? / Where have you studied?

ii. What kind of learning have you taken part in?
   a. Probes: What kind of Japanese classes have you taken in the past? / How active where these classes? / What did a typical lesson consist of?

iii. How do feel about learning kanji in your Japanese learning so far?

Part Two (For initial and ongoing interviews): The questions concerned students’ regulation of learning in the preceding week(s).

1. What kanji learning goals, if any, did you set for yourself since our last interview?
   a. Probes: What do you think of your willpower in achieving these goals? / Did you feel satisfied/confident about your willpower? / Did you feel the methods to control your willpower were effective/useful? / Any other reflections on the methods used?

2. Think back to your last Japanese kanji lesson or study period dedicated to learning kanji. How did you feel during this lesson/period?
a. Probes: Did you feel bored/afraid/impatient about this situation? / If so, what did you do about this feeling? / Did you feel satisfied/confident about your methods to control this negative feeling? / How effective/useful were the methods?

3. Think about the last kanji test you had to take. How did you prepare for it?
   a. Probes: Did you procrastinate in reviewing the words? If so, what made you procrastinate? / Comment on the methods used to stop procrastination. / Did you feel easily distracted? If so, why did you feel easily distracted?

4. How did you feel when learning a new group of kanji this week?
   a. Probes: Did you feel easily bored? / If so, why did you feel easily bored? / Comment on the methods used to get rid of the feeling of boredom. / If not, how do you maintain interest? / Comment on the methods used to enhance concentration.

5. Where and when did you study kanji in the past week?
   a. Probes: How did you select a conducive time and place for your learning? (e.g., waiting for a bus, during a classroom break, your own room.) / Which environments were best/worst for you? / Comment on the methods used to control the learning environment.