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Issues in Strategy Classifications in Language Learning: A Framework for Kanji Learning Strategy Research

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Abstract

A significant amount of research has contributed to our understanding of language learning strategies in the past decade. Orthography-specific characteristics of kanji (Chinese characters used in Japanese language) have seen the development of a growing interest in kanji learning strategy research. This paper examines recent trends in language learning strategies in general and identifies unresolved issues related to research in kanji learning strategies. A conceptual framework for further research is discussed in order to assist approaches to kanji learning strategies and research conducted within the area.

1. Introduction

This paper examines recent studies in language learning strategies in general and identifies unresolved issues related to research in kanji learning strategies. The particular issues related to kanji learning and the classification system as a whole compared to general language learning play an important role in understanding the learner and problems that arise in the task of learning kanji.

Language learning strategies are specific behaviours or techniques that students use to improve their language learning (Oxford 1990, 1993; O'Malley and Chamot 1990; Rubin 1981). Learning styles on the hand, are defined as more general behaviours in language learning (Oxford 1994). In some cases, the two are seen to complement each other, with styles made obvious by learning strategies (Ehrman, Leaver and Oxford 2003). All language learners, whether they are skilled learners or not, tend to use some kind of language learning strategy in order to enhance language skills. At the early stages in learner-strategy research, strategies used by 'good learners' were identified in order to enhance the learner capabilities of 'poor learners' (Chamot and Kupper 1989; Naiman et al. 1978; Rubin 1981; Stern 1975; Wenden and Rubin 1987). However, recent research tends to concentrate more on individual differences in strategy preferences (Goh and Lin 1999; Oxford 1993; Oxford and Ehrman 1993; Oxford 1992; Toyoda 1998) and on the complex relationship between language performance and strategy usage (Hall 1996; Nam and Oxford 1998; Oxford and Burry-Stock 1995). Much of this research agrees that strategies help learners to become autonomous in the target language. The concept behind 'strategy training' mainly aims to foster this autonomy by making learners aware of the range of strategies available in foreign language learning and making them more responsible in the learning task.

Identifying strategies related to learning Chinese characters or Japanese kanji has gained considerable attention among researchers and educators in the past decade (Bourke 1996; Douglas 1992; Okita 1995). Several reasons can be posited for this increased attention. From a pedagogical point of view, the number of students learning Japanese as a foreign language (hereafter JFL learners) has increased considerably during the past few years (Japan Foundation 2000) and has necessitated further research in the learning of kanji. From a psycholinguistic point of view, it is conceivable that JFL learners from alphabetic backgrounds employ distinctive strategies in learning kanji, since kanji as a logographic writing system differ considerably from a syllabic or an alphabetic form of writing. Kanji is defined as a morphographic (meaning + symbol) or a logographic (logo + symbol) system of writing in which a unit of representation signifies a meaning or a word (Taylor and Taylor, 1995: p.88). In this sense, kanji learning strategies can be equated to Japanese vocabulary learning strategies. However, the complexity of certain characters, the opaque sound-to-shape relationship, the multiple pronunciations and meanings attributed to one kanji and the vast number of kanji to be learnt, all mean that kanji learning strategies should be treated as separate from general vocabulary learning strategies.

Learner strategies have been examined by researchers through interviews, questionnaires, diaries, observations and think-aloud protocols. The research is mainly found in the following three areas: (1) classification of language learning strategies, e.g. Oxford 1990; O'Malley and Chamot 1990; Wenden and Rubin 1987, (2) variables affecting language learning strategy, e.g. Nyikos and Oxford 1993; Oxford and Nyikos 1989; Oxford, Nyikos, and Ehrman 1988; Wharton 2000; Young and Oxford 1997, and (3) the effect of strategy training on second language learning, e.g. Bourke 1996; Kitajima 1997; Oxford 1990. All these studies provide insights into understanding the learning process by learners of a second language and are crucial in underpinning a framework for second language acquisition. The

first area of research identifies strategies used by learners and classifies them according to a system or taxonomy. The second examines potential variables related to language learning strategies such as age, motivation, gender and learning styles. Finally, the third area of research explores the effect of explicit instruction in strategies to produce better performance. This paper confines its discussions to issues related to strategy classifications, as this is fundamental to laying the foundation for the other two areas of research. Additionally, this paper aims to identify related unresolved issues in strategy research on kanji learning in order to propose a conceptual framework for further strategy research.

2. Language Learning Strategy Classifications

Classification of language learning strategies has primarily followed the theory of *cognition* (Macaro 2001). Cognition refers to how the brain works for information processing and retrieval. Strategies are used to retrieve and store new information in the brain till this information becomes 'automatic' and such strategies are classified into a system by researchers and educators. Classification of strategies has many advantages. Strategy subsets enable researchers to describe the correspondence between mental processes and strategic processes (O'Malley and Chamot 1990). Strategy inventories may also serve as a valuable reference guide for educational instructors in the process of promoting autonomy in the language learner.

Oxford's (1990) Strategy Inventory for Language Learning (SILL) is one such classification system linking groups through a series of self-report assessments and questionnaires. Oxford divides strategies into two major classes: *direct* and *indirect*. *Direct* strategies refer to subconscious tasks, which are inherently learnt while indirect strategies refer to more conscious strategies. These two classes are again subdivided into six sub-groups of memory, cognitive, compensation, social, affective and meta-cognitive. These subsets are interwoven with each other, creating an occasional overlap in the strategy groups. Oxford's inventory is attractive in number of ways. It is designed in a way to suit not only students learning English as a second/foreign language (ESL/EFL) in America but also students of any country. The inventory has already been translated into many languages and used as an effective tool for measuring strategy preferences and developmental stages in strategy usage (Watanabe 1991; Oxford and Burry-Stock 1995). The inventory also has a well-understood underlying structure for strategy categorization and employs a wide range of strategies, all items of which are checked and rechecked for validity and reliability. However, the SILL categorization system is not without its limitations. SILL has been mainly based on research conducted on either groups of mixed nationalities learning English as a second/foreign language or native speakers of English learning a foreign language in the United States. As a result, Wharton (2000) refers to the dangers of ethnocentric bias and applicability regarding the definition of 'good language learning strategies' as defined by educators and researchers from the United States alone. Some studies have demonstrated that the most frequently used strategies in a foreign language context in Asia vary considerably from those in the second language context in the United States (Takeuchi et al. 1999; Takeuchi and Wakamoto 2001). Takeuchi (2003) recognizes the importance of distinguishing between common strategies and context-specific (or environmental-unique) ones as "promoting the survival of learners in the environment" (p.391).

O'Malley and Chamot (1990: p.99), on the other hand, have differentiated strategies into three categories: cognitive, metacognitive and social/affective. Cognitive strategies are specified as learning steps that learners take to transform new material, for instance,

inferencing, contextual guessing and relating new information to other concepts from memory. Metacognitive strategies involve consciously directing one's own efforts into the learning task. Social/affective strategies involve interaction with another person or taking control of ones' own feelings on language learning. Wenden and Rubin (1987) again classified learning strategies into two categories: cognitive (steps used by learners to process linguistic and socio-linguistic contents) and self-management (planning, monitoring and evaluating), on the basis of their learning functions. Macaro (2001) conceptualises all language learning strategies as standing in a continuum without a clear line dividing the strategy types into particular areas. Cognitive strategies lie at one end with their inherent, subconscious, automat zed tasks and metacognitive/social/affective at the other end with their conscious, evaluative strategies.

Much of this classification research has been conducted in English as second/foreign language (ESL/EFL) settings. Regardless of how they are classified, the exact number of strategies available and how these strategies should be classified still remain open for discussion. A comparative analysis of various kinds of strategy classifications reported so far supported the view that O'Malley and Chamot's (1990) classification of strategies into cognitive, metacognitive and socio/affective strategies as well as Oxford's six-subset strategy taxonomy are more consistent with learners' use of strategies than the direct and indirect dimensions (Hsiao and Oxford 2002). Purdie and Oliver (1999) discuss the potential dangers of applying results of strategy studies with adults and adolescents to child second language learners. Apart from the psychological and sociological differences that exist between adults and children (Purdie and Oliver 1999), the approach to second language acquisition among child learners has been associated more with first language acquisition (Larsen-Freeman 1991). Wenden and Rubin (1987) refers to four criteria that must be taken into consideration when developing an inventory of cognitive strategies (p.24). The inventory must:

(1) be understood by the majority of participants. Jargon that is not comprehensive in an inventory may end up in statements being misunderstood by the respondents.
(2) consist of only selective strategies that are useful for a particular language skill. For example, vocabulary-learning skills may differ from conversational skills.
(3) have strategies only for language use in a particular language setting. Learning kanji in Japan may differ from learning kanji in Australia, and
(4) confine itself to strategies that are most often used. Rhythm, for example, is rarely used in kanji learning.

Additionally, research has indicated that language learning may involve different independent learning strategies for different cultural backgrounds, learning environments and language-specific tasks (Hsiao and Oxford 2002). Oxford et al. (1994) admit that SILL fails to provide details of language learning strategies related to any specific language. A language-specific task such as strategies for learning kanji, for example, employs only a few or no interactive strategies and may perhaps be inadequate to explain skills in learning a logographic script such as kanji.

3. Kanji Learning Strategy Classifications

Many of the attempts to identify strategy categories in learning kanji have relied mainly on learner perspectives with the aim of contributing to kanji education, specifically for learners from alphabetic backgrounds. Many of these were conducted in university settings using questionnaires (SILL or a modified version of SILL) as their main instrument. Okita (1995), for example, investigated the strategy usage of non-native learners of Japanese by conducting

a survey on kanji learners of different years of Japanese study in Hawaii. Her strategy instrument was a revised version of Oxford's SILL consisting of thirty items on kanji learning. The findings revealed that the most commonly used strategy irrespective of level of study was 'repeated writing', followed by reading of signs and other notices outside the classroom. Rhyming was identified as a strategy that was less commonly used by all learners. The study exposed strategy preferences according to the year of study in the Japanese language with third year (advanced) students preferring 'the usage of dictionaries' and 'comprehending without translating into the mother tongue' while second year students reported 'remembering the place where kanji were learnt' as the most preferred and beginner-level first year students favoured flash cards more often than any other level. Okita's study, although providing insights into learning strategies according to the year of study, fails to describe any in-depth relationship between actual proficiency levels and strategies used. As is apparent, the great diversity of JFL learners and the rich Japanese community in Hawaii may have contributed fundamentally to strategy preferences, impeding further generalizations from the study.

Another such study was that of Douglas' (1992) quantitative survey which gives an insight into patterns of developmental differences in kanji learning strategies by levels (years of kanji study, cloze test procedures and formal institutional study period) of Japanese study in America. The most-used strategy reported across all three levels was a *social* strategy, 'trying to learn about Japanese culture', and the least was 'keeping a private diary or journal for writing insights into Japanese language.' Although Douglas has attempted to address reading and writing strategies in particular, it is doubtful whether such social strategies, mentioned above play a role in the improvement of reading and writing skills of the learner. Listening and speaking skills are often viewed separately from reading and writing skills. Strategies such as 'watching TV shows or movies or listening to the radio in Japanese' (see Okita 1995) or 'paying attention to the thoughts and feelings of other people with whom the learner interacts while learning Japanese' (see Douglas 1992) may inevitably facilitate listening/speaking skills but such strategies play no part in kanji learning.

Nonetheless, the above research presents three insights into the application of language learning strategy research to kanji learning: (1) The differences in strategy preferences among learners according to the level of proficiency, learning styles, motivation and so forth are common phenomena across strategy research. (2) It relates to linguistic and cognitive transfer of strategies from ones' L1 to L2. Although empirical studies on lower-level processing (word recognition) strategies have identified transfer effects from one's L1 to the application of kanji learning (Chikamatsu 1996; Mori 1998), the above self-reported questionnaires or top-down strategy studies have failed to directly address the issue of how exactly alphabetic learners cope with a morphographic writing system. (3) It sets important limits on the generalizations by identifying strategies that are unique to orthography-specific characteristics, such as memorizing multiple readings together whilst learning a new kanji (Okita 1995). These three insights therefore seem crucial in formulating questionnaires and inventories in kanji learning to learners from various orthographic backgrounds.

Bourke's (1996) Strategy Inventory for Learning Kanji (SILK) is one such systematic taxonomy example where orthography-specific characteristics are incorporated into a language-learning strategy inventory. A combination of interviews, think-aloud protocols and free recall tests on the kanji learning process of several Australian students and observations of native children studying kanji in Japan were used as resources for the formulation of the inventory. Strategies are grouped into direct (strategies dealing directly with the task) and indirect (strategies for managing your learning) groups, similar to that of Oxford's SILL.

These are again subdivided into fifteen subsets that are specifically focused on the learning processes of kanji. Each strategy is briefly explained with examples in order to facilitate better understanding of the strategy items. The concept of a task-based language-specific strategy inventory that Hsiao and Oxford (2002) refers to may somewhat correspond to Bourke's SILK.

The statements of the SILK, however, are yet to be confirmed for grouping of each statement in a certain category. According to Oxford (1993), such confirmation through retest and analysis may provide much needed evidence for formulating psychological and educational categories in a relatively objective manner rather than subjective assumptions of categorization. One such 'self-monitoring' strategy 'I test myself and relearn the kanji I didn't know' in Bourke's SILK, for example, may overlap with 'I test myself to check whether I know the kanji I have studied' in the category of 'evaluating your learning,' although the intentions of the two strategies are stated as being different, the former related to the process of learning from mistakes and the latter to overall learning. The sample answers from SILK, too, were not measured for reliability (whether all statements relate to the same underlying construct of kanji learning), although the validity of each statement may have been confirmed by consultation with other experts in Japanese.

It would thus seem fair to assume that any taxonomy of kanji learning strategies should be observed in the light of the above arguments. Still, there are several issues that seem more plausible for discussion prior to formulating categories in kanji learning. Several of these unresolved issues are discussed herein in order to assist further research in this area.

4. Issues in Kanji Learning Strategy Research

4.1. Consciousness in Self Reported Strategies

The exact level of consciousness, if any, on the part of the learner when using strategies is an issue that remains unresolved in previous research. Some researchers distinguish between process and strategy (Cohen 1998) while some avoid drawing a line between strategy and skill/process or behaviour (Macaro 2001). Others define strategies as a combination of conscious techniques and unconscious processes (Everson and Kuriya 1998; Barnett 1989). Macaro (2001: p.24) argues that "there is no consensus in the literature as to whether strategies can clearly be defined as conscious or subconscious" and whether all learners are able to identify any one strategy or not. 'Linking a word to a visual image' and 'planning a week's revision' are two examples that he provides as standing between the continuum of subconscious (difficult to articulate) and conscious (easy to articulate) levels. The term, 'processing strategies' may perhaps refer to strategies that are effortlessly deployed in the course of learning. These strategies may not easily be identifiable to either the learner or the observer. This issue is more prominent in self-reported kanji learning strategy research where learners are forced to express the means by which they remember visual logographs. How could learners possibly report using such strategies? The answer may perhaps be to provide examples of a situation/context/task where the learner may tend to use such strategies, which may conjure up images of behavioural patterns in learning. In this sense, due respect can be given to Bourke's SILK where specific examples and descriptors are provided for each strategy statement, even when they are subconscious by nature. "Visualization," for example, is described as "when the learner can picture the kanji in their head before transferring it to paper" (p.369).

4.2. Cognitive Transfer of Processing Strategies

Several studies on foreign language learners including JFL learners have contributed to conceptualising the theory of orthographic transfer of strategies from L1 to L2 (Briggs and Goryo 1988; Chikamatsu 1996; Hayes 1988; Koda 1988, 1990; Machida 2000; Mori 1998; Matsunaga 1999; Hall 1996). In other words, language groups from various orthographic backgrounds were observed to use different processing strategies. Learners from alphabetic backgrounds depend more on phonological strategies than learners from Chinese character backgrounds. Most of these studies have relied on lower level processing skills such as word recognition measures (for example, Koda 1988; Chikamatsu 1996), with a few utilizing observations of reading behaviour (Machida 2000; Hall 1996). The results of some studies, however, appear contradictory to the orthographic transfer processing theory. Ke's (1998) word identification study, for instance, revealed that language background (being heritage learners of Chinese or not) was not a significant factor influencing recognition or production of Chinese characters. Moreover, the analysis revealed that language background, in other words, being a heritage learner or not, did not influence the recognition or production performance of the learners. Further observations through self-reported strategy usage revealed no significant differences between the heritage and non-heritage students' perceptions of learning strategies. Grainger's (1997) implementation of SILL, too, on groups of JFL learners from various ethnic backgrounds studying in Australia, failed to identify any significant differences in strategy use among the groups. Further, most processing strategy research as well as self-reported strategy research is confined to advanced learners of Japanese from Chinese and English backgrounds alone. It would be interesting to note any cognitive strategy transfer differences in perceptions as well as processing skills of learners from various proficiency levels and orthographic backgrounds, not confined to Chinese and English orthographic backgrounds alone.

4.3. Cognitive Strategies and Processing Strategies

According to Oxford and Burry-Stock (1995: p.5), "cognitive strategies process the greatest variety of items covering strategies related to practice and to the all-important 'deep processing' in which the learners analyze, synthesize and transform new information."

Learner-reported cognitive strategies have been reconfirmed or re-examined through experimental approaches such as word recognition studies or free recall tasks. Free recall tasks allow the researcher to note comprehensive trends in writing, while word recognition tasks may offer several possible interpretations of processing strategies related to reading (mostly specific to vocabulary knowledge) in the short-term memory. Both methods have been examined in kanji learning situations with JFL learners (Takagi 1995; Fujiyoshi 2001). The main issue here, however, is the extent of the relationship between reported use of cognitive strategies and processing strategies observed in word recognition tasks by JFL learners. Do word recognition tasks alone adequately explain processing strategies used by L2 learners? What are the major differences in the reported use of cognitive strategies and processing strategies observed in word recognition tasks? The empirical validity of word recognition procedures conducted in experimental settings and the application of such word recognition studies in foreign language reading and teaching still remain open to discussion. Hence, it may be worth investigating the relationship between perceived uses of cognitive strategies and processing strategies observed through word recognition or free recall tasks.

4.4. JFL Learner and Native Learner Strategies

Multidimensional features of a morphographic script such as kanji could be an entirely novel experience for a beginner language learner from an alphabetic background. Koda (1996) refers to three fundamental differences in L1 (first language) and L2 (second language) readers: (a) learners of L2 have diverse goals in learning, (b) they have prior experience in L1, and (c) L2 reading is cross-linguistic. These differences appear also to influence the choice of L1 and L2 language learning strategies. With respect to kanji, native Japanese speakers' processing strategies have been compared with proficient non-native adult learners of Japanese in some studies (Flaherty 1993), with the presumption that kanji is processed like pictures rather than a script because of its ideographic nature. Others have observed kanji learning strategies used by Japanese children, so as to form the basis of recommendations for learning kanji among JFL learners from alphabetic backgrounds (Bourke 1996). However, caution must be exercised when comparing learners with native speakers, especially in the case of kanji learning strategies. Three issues limit further discussion of comparison of JFL learners and Japanese children learning kanji. The first is that with JFL learners' levels of proficiency and exposure to kanji in certain groups may constrain objective comparisons; the second is the measure of cognateness of JFL learners' first language orthography and kanji, which may require different strategies for learners from different language backgrounds; and the third is the complex nature of Japanese orthography itself. The Japanese writing system is a combination of two kana syllabaries (hiragana and katakana) with kanji (logography). Therefore, it is difficult to categorize native Japanese readers as 'pure' morphographic readers in order to compare their usage of strategies with those of advanced learners of Japanese from alphabetic or other logographic backgrounds.

4.5. Strategies for Teaching versus Learning Kanji

Another unresolved issue in second language strategy research is the effect of instructional strategies on learner preferences for strategies. Some researchers have argued that learner strategy preferences differ according to national origin and/or the country in which they learn the foreign language (Politzer and McGroarty 1985; Oxford 1996). Does this in any way signify that the learning styles of the teacher and the educational context in which the language is taught have influenced learner preferences for certain types of strategies? A small number of studies has already suggested the possibility of a strong relationship between teacher and student attitudes/beliefs and strategies used in learning a foreign language (Kern 1995; Wong-Fillmore 1985). However, further research is crucial in recognizing the importance of teaching strategies on the deployment of learner strategies. Shimizu and Green (2002) note that this is of particular importance in a L2 setting in which the writing system differs significantly from that of the native language script. They note that in situations where a learner from an alphabetic background confronts a quite distinct writing system from their own (for instance, kanji), "the language instruction strategies used by a teacher may significantly impact the choices that students make in their effort to develop effective learning strategies" (p.228).

Studies that appear to address kanji teaching are generally concerned with methodological issues rather than kanji teaching strategies themselves. Foreign language teaching methodology is defined as "the activities, tasks and the learning experiences used by the teacher within the teaching and learning process" (Richards 1990: p.35). In one sense, teaching methodology implies "a fully worked-out system for teaching which, in the perceptions of language teaching community, exists independently of any particular teacher

(who may apply it in the classroom)" (Littlewood 1994: p.2027). Hence, language-teaching methodologies, whilst consistent with some teaching or instructional strategies, may not include all components in teaching strategies such as lesson planning, assisting individual learners or getting feedback from learners. Sakai (1995: p.67), for example, proposed a cognitive system of kanji teaching methods to learners of Japanese as a foreign language with a four-step methodology. The first, the image/image association method, relates to instructor-provided imagery/pictures for remembering the meaning/shape of kanji. The second is 'the long term-memory method' where 'recital' of a sentence with already learnt kanji/kana is used as a memory aid. 名 *na* 'name', for example, is remembered as タロはいぬの名前です *Taro* (Katakana syllables constituting the kanji 名) *is a name for a dog*. The third method is the 'production method' in which radicals play a major role in the introduction of a new kanji. For instance, the new kanji 空 is introduced along with the previously learnt 家 and 字 which have the 'same top' radical. The fourth is the 'distinction method' where the new kanji is introduced with possible error writings identified in previous lessons, which are discernible for learners from kanji and alphabetic backgrounds respectively. 空 for example, is introduced along with 穹 for character-background learners and 究 for alphabetic-background learners. The efficacy of this proposed methodology for teachers as well as learners is yet to be examined, although it is presumed to be well adapted as a systematic strategy instruction system for teachers of Japanese and kanji.

Besides research that deals with kanji teaching methodologies, Shimizu and Green's (2002) study is one of the few that identifies strategy domains for teaching kanji. Their data was gathered by means of a questionnaire. The strategy subsets identified were (1) Memory strategies – the teacher links previous knowledge of kanji taught to the learning of the new kanji, (2) Context strategies – context-specific cues are used for instruction, and (3) Rote learning strategies – the student is encouraged to do repetition, drill and practice. This study reported the strategy type most supported by teachers as being rote learning strategies, a result consistent with some experimental and self-reported strategy studies (Wang and Thomas 1992; Naka and Naoi 1995; Okita 1995; Onose 1988) where rote writing appeared to be significantly used and to be more effective than other strategy types by learners of kanji and Chinese characters. Strategy research on both learners and teachers in the same setting may provide much needed evidence for the impact of teaching methods on the learner use of such strategies

5. A Framework for Kanji Learning Strategies

A major challenge, therefore, for future researchers involved in kanji and language learning strategies will be to address one or more of the issues discussed above with evidence and support from empirical research from natural contextual kanji learning situations. How specific could kanji learning strategies be with regard to language learning strategies? What is the specific influence of the native orthography of the learner in relation to kanji learning strategies? What characteristics are common to teaching methods and learner use of intentional strategies? These are some of the issues that have had scant attention in past research and need further empirical and theoretical research in future.

Kanji learning strategies may be viewed as part of the whole language learning process while having their own specific features. Identifying these features is essential to developing a systematic inventory or taxonomy of kanji learning. These features must be viewed in the light of learner characteristics and orthography-specific characteristics. Major learner-specific characteristics involve the language background of the learner, learner attitudes and beliefs,

past experiences, motivation, language context or environment in which the learner acquires L2 and also learning and teaching methodologies in such an environment. Orthography-specific characteristics of kanji raise issues on awareness of such strategies, the exact relationship between processing strategies and reported use of cognitive strategies and, finally, cross-orthographic transfers. These are additional features other than the ones described in language learning that should be kept in mind by researchers and educators of kanji or Chinese characters when implementing further research.

Kanji learning strategies and immediate issues that surround the learning process are illustrated in Figure 1 below. This illustration is not intended to be a model of kanji learning strategies but a framework for understanding the underlying concepts of learning a logographic script by learners from various orthographic backgrounds. It also provides a view of the complex nature of the relationship between language learning strategies and kanji learning.

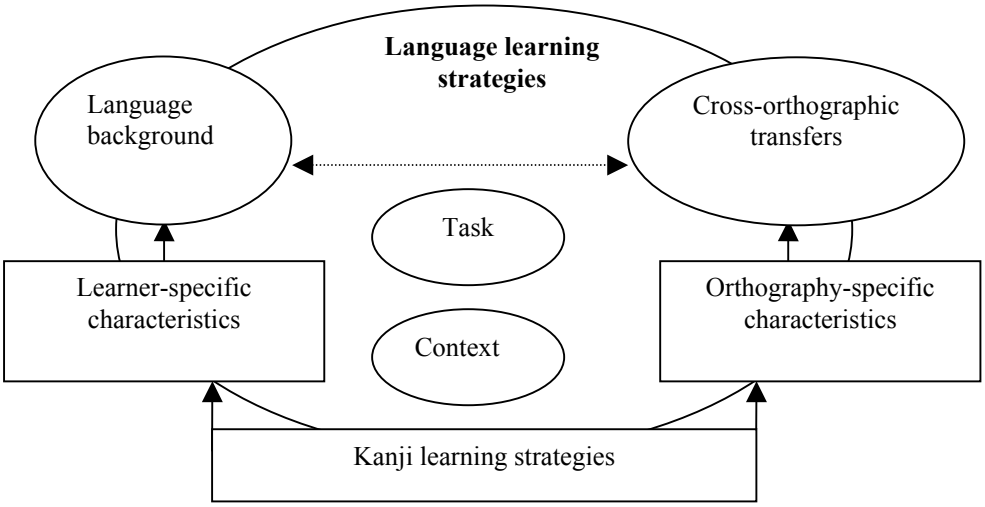

Figure 1: A simple framework for kanji learning strategy research.

As exemplified in Figure 1, kanji learning strategies highlight the necessity for distinguishing between learner-specific and orthography-specific characteristics. Motivation, beliefs, aptitude and performance have all been investigated in second language acquisition research and have contributed immensely to language learning strategy research. Learner-specific characteristics interrelate vastly with orthography-specific features such as cross-orthographic transfers in language learning. These characteristics, however, have contributed little or occasionally conflicting empirical evidence for strategy research in kanji learning. Although this point should be carefully observed within the context and task of generic language learning strategy research, we believe that a classification system for kanji learning cannot be properly approached without a framework based on orthography and learners-specific characteristics.

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