European Approaches to Japanese Language and Linguistics

edited by Giuseppe Pappalardo and Patrick Heinrich

A Consideration About Competence in Kanji and Their Teaching

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Abstract This essay deals with the definition of 'kanji competence' from the point of view of the three main approaches to language in Japanese: *shiru* (to know), *wakaru* (to understand) and *dekiru* (to be able). After outlining competence, the essay proceeds to investigate how to carry on a comprehensive teaching process which takes into account: 'who' (are the learners), 'what' (they need to learn) and 'how' (to teach). The considerations presented here are based on the Author's personal experience as a former learner, now reconsidered in his role as a teacher.

Keywords Kanji competence. Reading ability. Kanji strings. Japanese written language. Teaching strategies.

Summary 1 Overview of the Learning Process. – 2 Knowing (知る), Understanding (わかる) and Being Able (できる). – 3 Educational Approaches. – 4 Concluding Remarks.

In the following pages, I will deal with teaching and learning Japanese *kanji*, with an empirical approach based on my own experience as a student of Japanese language when I was young. *Kanji* are one of the greatest obstacles in learning Japanese language, sometimes an insurmountable barrier which discourages students and makes the study of Japanese hard and often monotonous. Considering this, studies on *kanji* learning should receive more

1 I use the word *kanji* instead of sinogram, Chinese characters, or other terms, because *kanji* is less ambiguous and understood by many. I use the word *kanji* both for singular and plural.



scholarly consideration. The impression is that this field of teaching and learning has seen little progress. In the following, I will focus on kanji competence to understand what 'knowing kanji' actually means, because this represents a prerequisite to develop efficient teaching strategies.

First, there are a few points that I would like to highlight about *kanji* education and *kanji* ability, as concerns the learning process:

- Teaching *kanji* to non-native speakers is different from teaching it to native speakers.
- Teaching *kanji* to non-*kanji* area learners (outside of China, Korea, Vietnam, etc.) is different from teaching it to learners from kanii areas.
- Adult education is different from child education.
- This paper deals with Japanese *kanji* education to adult non-native speakers, and non-kanji area learners.

Overview of the Learning Process 1

The learning process rests on three pillars: 1. Learners, 2. Goals of learning, 3. Method of learning.

- Learners: who are the learners? Children, adults, workers, academics, etc.
- 2. Goals of learning: What do they want to learn? What are their needs? What is their motivation?
- 3. Method of learning: How to learn and how to teach. How should the actual learning process be carried on? Textbooks, exercises, methods of instruction, etc.

We have thus three items at hand we need to consider: who, what and how. While all three points play an important role in determining the learning process, I restrict the discussion here to the second point only, i.e., the learning goals. These are important, and they should be clearly identified. However, often these goals of learning remain rather vague, and many unnecessary learning activities take place as an effect thereof. Teachers should therefore be careful to focus on these goals. Focused and unfocused *kanji* learning may be compared to differences of (normal) light and laser light. Laser light is concentrated, and its power is therefore stronger. Teachers should decide on their educational approach depending on who the learners are, what their motivation is, and what they envision the study of kanji to be good for. On this basis, it is possible to design an effective course. In other words, the learner's language ability (in this case, kanji ability) should be determined in advance. What the students will be able to do at the end of the course should be clear from the start.

2 Knowing (知る), Understanding (わかる) and Being Able (できる)

In foreign language education, three verbs can be applied in Japanese: 知る (shiru, to know), わかる (wakaru, to understand) and できる (dekiru, to be able). They all correspond to goals of foreign language education.

- 1. 知る: Know a foreign language (e.g. English) 外国語 (例:英語) を知る;
- 2. わかる: Understand a foreign language (e.g. English) 外国語 (例: 英語) がわかる;
- 3. できる: Be able (to speak, write, etc.) a foreign language (e.g. English) 外国語 (例:英語) ができる.

If you combine the above three, you have the goals of foreign lanquage learning and teaching:

- 知る means having knowledge about something, to recognize the existence of something or to be aware of something.
- わかる means to the meaning or value of something and to react adequately to the linguistic stimuli of another person.
- できる means to be able or to have an ability or capacity. It implies being able to perform something adequately.

All the above, applied to the field of language teaching, become:

- 知る To have knowledge about the mechanisms of a given language; having an analytical approach to language.
- わかる To understand a linguistic interaction or a text; a passive approach to language.
- できる To have the ability of using the language and to be able of linguistic performances; a behavioural and active approach to language.

From the viewpoint of the educational process each of these three Japanese verbs denotes a different process. If the three are well balanced, they can provide a comprehensive language education.

If we apply this to *kanji* education, we come to the following insights:

- 1. Knowing *kanji* means to have knowledge about the mechanisms of *kanji*.
- 2. Understanding *kanji* means to understand single *kanji* or entire texts that use *kanji*.
- 3. Being able to use *kanji* means to have an operational ability of *kanji*.

From the standpoint of learning, this implies:

 Learning kanji by analysing them (their structure, or form, strokes).

- 2. Understanding a text written in *kanji* (mainly applicable to reading ability).
- 3. Understanding a text and ability to react and interact appropriately (productive behaviour vis-à-vis the language).

All of this concerns what we could call 'kanji ability' or 'kanji competence' (Kanji nōryoku 漢字能力), but what exactly is kanji competence?

The Japanese *kanji* proficiency test (*Nihon kanji nōryoku kentei*, 日本漢字能力検定) measures *kanji* proficiency, not only by examining the amount of knowledge in reading and writing, but also the ability to use them appropriately within sentences. In the Internet site of this particular test, we find the following definition (Nihon Kanji Nōryoku Kentei Kyōkai 2020):

漢字を「読む」「書く」という知識量のみならず、漢字の意味を理解し、文章の中で適切に使える能力も測ります。

(The test) evaluates the competence not only to "read" and "write", but also of understanding the meaning of *kanji* and the ability to use them appropriately in sentences.

As we can see from this definition, an operational ability of *kanji* is required here. More concretely, it is a comprehensive competence that includes an understanding of contextual meaning, an analysis of the semantic structure of compound *kanji* words, and the understanding of the meaning of a given sentences on the basis of compound *kanji* words. Since this is a comprehensive ability, the three competences of knowing, understanding and being able are covered by this kind of approach.

3 Educational Approaches

In *kanji* education, we should apply knowing, understanding and being able to the learning process. In the following, I will examine these three activities in the teaching and learning processes.

Generally speaking, to know a *kanji* means knowing the information about shape, mapped sound and meaning, plus the mechanism how the *kanji* can be combined with other signs. To put it a little more in detail, I would like to examine the competence in shape and meaning, leaving out sound here. *Kanji* are governed by combinatory rules of strokes, something which could be called the grammar of *kanji* form. Perhaps one of the most serious problems for non-*kanji* area learners is that a certain set of *kanji* strokes cannot be associated with already existing knowledge about writing. For such learners, *kanji* may initially look like an accidental combination of strokes. An

adequate graphic memory of kanji can be obtained by special exercises which develop abilities such as distinguishing kanji, deconstructing and combining kanji constituent elements, individuating meaningful elements and phonetic elements of the kanji and reproducing kanji by drawing on constituent elements. In short, this is a practice intended to teach students to 'see' kanji. Because the learners of alphabetic area are not familiar with the physical structure of *kanji*, they initially cannot see them in the same way as learners from kanji areas do. Before starting *kanji* education, it is therefore necessary to go through preparatory exercises that allow learners to 'see kanji' in an informed way. This is thus a practice of educating the eye, so to speak. The result will be that *kanji* are perceived as a set of interrelated elements that have a set position within the overall *kanji* structure. To educate the eye implies developing the ability to recognize differences, however small these may be. Already Ferdinand de Saussure famously argued that in "language there are only differences. [...] A linguistic system is a series of differences of sound combined with a series of differences of ideas"([1916] 1959, 121-2).

Gi 義 in Japanese refers to the meaning of a kanji. It can be laborious and tedious to memorize the meanings of long lists of *kanji*. Also, *kanji* often accumulate multiple meanings from their application across regions and time. As a result, kanji can take on different meanings in different compounds. For example, the word-character <密> has four different basic meanings: 1. 'secret'; 2. 'perfectly adhering'; 3. 'confidential'; 4. 'well closed, letting no entrance'. In order to learn the meanings of this *kanii*, the learner must also memorize a long list of *kanji* with which it may be combined. It is doubtful whether this is a productive learning strategy, though. Besides, the meaning of kanji also involves different parts of speech. When teaching the meaning of *kanji*, a more comprehensive approach is desirable. It is preferable to learn *kanji* not by themselves but as constituents of words. This matter will be dealt with in more detail further below.

Kanji ga wakaru (漢字がわかる, 'understand kanji') corresponds to a part of the learning process that aims at the comprehension of kanji in written sentences. It concerns mainly reading comprehension (dokkai 読解), and it is part of learning the Japanese writing system. It is based on the premise that if you know all script characters, then you can read Japanese. However, I do not think that the knowledge of the characters alone can lead to a good reading performance. Since reading is a psycholinguistic process, I think that it is difficult to substantially improve reading comprehension unless this psycholinguistic process is also taken into consideration. The goal of education should thus not be simply that of knowing *kanji* (individual script characters) but rather fostering the ability to read a Japanese text effectively. Put differently, kanji education rests not only on knowing what a specific character is but on the ability of reading texts. Of course, knowledge of individual characters helps to develop this ability and therefore must be included in kanji education. However, thinking that *kanii* education is paramount to knowing characters would be mistaken. Learning to read texts is important. Recent studies into reading have revealed some interesting facts. While reading the eyes move quickly forth and back to arrive at a general image of the written string. From this image the brain accesses already acquired images. As a matter of fact, this process is an activity where more than one single word is involved in the perception (Hunziker 2006; Wotschack 2009). Only knowing a character and reading texts are clearly different mental activities. The reading process must be performed quickly, and this does not allow to identify one character after the other so to speak. When reading a text, the brain can recognize longer strings in a psycholinguistic process that is similar to parsing by computers. Reading is thus a continuous process which leads to an understanding by means of a parsing-like overview, followed by a mental process of what is seen, and a comparison of this with information stored in the memory of the reader. The ability to read Japanese texts rests not only on whether the *kanji* are stored in the brain; it also involves the ability to access this information quickly and accurately in their specific linguistic context. The task of quickly and accurately accessing information in the brain and to elaborate it in the given linguistic context is a task that takes time for non-kanji areas adult learners of Japanese and this needs to be considered in *kanji* education. In order to acquire this ability, we have two principal educational strategies (Borowsky et al. 2007; Rayner, Clifton 2009).

Sub-lexical reading involves teaching to read by associating characters or groups of characters with sounds or by using phonics or synthetic phonics in the learning and teaching methodology.

Lexical reading involves acquiring words or phrases without attention to the characters or groups of characters that compose them or by using whole language learning and teaching methodology.

Normally, phonemic reading is considered the strategy for reading *rōmaji* and *kana*, and whole-word reading is thought to be reading *kanji*. However, in actual reading, it is difficult to distinguish phonemic reading from whole-word reading, and in many cases the second strategy largely applies to both. When *kanji* appear in combination, it is better not to teach each *kanji* as separate or as individual grapheme, but rather to teach the *kanji* compounds that represent words. If *kanji* are taught as individual graphemes, then learners will acquire one *kanji* after the

² In this regard, it is interesting to recall Martinet's 'double articulation' theory which refers to the twofold structure of the stream of speech, which can be primarily divided into meaningful signs (like words or morphemes), and then secondarily into distinctive elements (like letters or phonemes).

other, and then they will have to learn a combination of kanji. Only as a result the combination of characters, leaners will actually be able to read words and texts. Let us consider an example: $\langle \bar{n} \rangle$. If we read each kanji one by one, we read \bar{n} $t\bar{n}$ (east' and \bar{n} $t\bar{n}$ $t\bar{n}$ (or $t\bar{n}$), 'capital', that is 'eastern capital'. The reading of each single $t\bar{n}$ causes a very burdensome process of reading comprehension. It is much more efficient to learn directly that the entire combination $t\bar{n}$ represents $t\bar{n}$ $t\bar{n}$ $t\bar{n}$ $t\bar{n}$ $t\bar{n}$ and their combinations as words takes time, but as a result, the reading method becomes smooth from the start.

Kanji stings are prominent in Japanese written texts and they are often hard to understand for learners of non-kanji areas. By kanji strings I refer to sentences composed mostly of kanji with very few kana. For example, how can you analyse and understand a kanji string such as <経済取引局企業結合課>? This is difficult if one is not familiar with the combinatory mechanism of kanji and the knowledge of each individual kanji that appears in this string is insufficient. In addition to knowledge of the individual kanji, knowledge about the relations between kanji words (Sino-Japanese lexicon) is essential. Learning the mechanism of kanji strings should also be included in the process of kanji education. The reason why kanji strings are difficult for non-native speakers of Japanese is that native speakers already possess knowledge of the Sino-Japanese lexicon, and they can therefore recognize such information immediately.

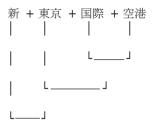
Another problem is that words are differentiated by space as it is the case in alphabetic writing. In the case that *kanji* and *kana* script are mixed, then *kana* plays an important role in recognizing word boundaries. In the case of *kanji* strings, this becomes much more difficult. Consider, therefore, a few examples.

If we change the following kanji string <市民講座会員専用サイト> in one where kanji and kana are used together (kanamajiri), then we obtain <市民のための講座である会員に専用されるサイト>. The structure of the last one is easier to understand as it involves more grammatical information.

The kanji string <新東京国際空港> $(shint\bar{o}ky\bar{o}kokusaik\bar{u}k\bar{o})$ for a beginner level student who reads combining characters one after the other, may easily become <新東京の国際空港>, that is, the international airport that is located in 'new Tokyo'. In fact, mistakenly, the above kanji string might be decoded in the following way:



However, the string is correctly decoded as follows



The New International Airport of Tokyo

When analysing *kanji* strings, two successive steps should thus be taken:

- Step 1: separation of words.
- Step 2: mutual relations of words.

For example, <接触性伝染病> (sesshokuseidensenbyō)

- Step 1: separation of words: <接触-性 + 伝染-病> is correct, while the following two are erroneous <接触 + 性伝 + 染病> and <接 + 触性伝 + 染病>.
- Step 2: Mutual relations of words:

接触-性/伝染-病
L_____J
L_____J
Contagious infectious disease

Taking the above into account, $kanji\ ga\ wakaru$ teaches not only kanji as single characters, but also as words. Learners do not deal with interpretation of kanji strings simply as successive combinations of single characters, but rather as a combination of single words and their combinatory rules.

We are now prepared to discuss the next point. What then does $kanji\ ga\ dekiru$ (漢字ができる, being able with kanji) or $gengo\ ga\ dekiru$ (言語ができる, being able with language) mean? Above we stated that dekiru (being able) refers to the following abilities:

- 1. In general: to have the ability to use language. Ability to perform language acts. A behavioural approach to language.
- 2. As to *kanji*: to have the ability to use *kanji*. The ability to act and operate with *kanji*.
- 3. Teaching aims: to understand texts, to and be able to respond freely. Ability to produce written language acts.

In the case of *kanji* education, *dekiru* implies to write sentences that express, for example, personal opinions and attitudes. Clearly, this is the last and highest stage of *kanji* education. After completing the *kanji ga wakaru* learning process, we can now turn to a behavioural and productive stage of *kanji* usage. At this stage, *kanji* education has the purpose of developing and improving two kinds of abilities: Firstly, the ability to correctly write *kanji* (correct writing sequence) and to achieve an overall character balance, that is, an appropriate pattern of characters. After acquiring such writing ability, the teaching process should secondly move on to develop the ability to write *kanji* as words. That is, the ability to write *kanji* as meaningful language elements. This step connects the three elements of *kanji* (shape, sound and meaning). By means of such exercises, students learn while practically using *kanji* or strengthen their ability to use them. Needless to say, the acquisition of this skill in *kanji* education is time-consuming.

What kind of education is necessary to enable learners to produce sentences containing *kanji*, in particular given consideration to the fact that writing by hand has become rare? The main emphasis should therefore be the development to use *kanji* appropriately. This involves two main abilities. Firstly, the ability to produce sentences composed of *kanji*-only strings and, secondly, the ability to produce sentences which include a mixture of *kanji* and *kana* (*kanjikana-majiri* 漢字かな 交じり). Of course, writing *kanji*-only sentences is rare. This notwithstanding, when reading a text of this kind, problems may arise, and it is therefore advisable to acquire this ability. Since the production of *kanjikana-majiri* sentences are also part of *kanji* education, the relationship between *kanji* and *kana* should be learned.

In most cases learners write using machines (computers, mobile phones, etc.) when writing Japanese sentences. I therefore do not include here discussions of writing kanji by hand. Rather, I prefer to examine briefly which points are relevant in kanji education when writing with machines. Normally, when writing with machines, mistakes can occur. The most common are the following:

- 1. Vocabulary mistake 1: homophonous (especially Sino-Japanese) vocabulary, e.g. 創造 ($s\bar{o}z\bar{o}$, creation) instead of 想像 ($s\bar{o}z\bar{o}$, imagination).
- 2. *Kanji* mistake 1: homophonous expressions, e.g. 言って (*itte*, say) instead of 行って (*itte*, to go).
- 3. Kanji mistake 2: although synonyms, depending on kanji, the nuance or usage is different, e.g. 会 5 instead of ূ 5 or $_{ } 6 5$ (all three au, to meet).
- 4. Misprints, e.g. 愚禅 (*guzen*, non-sensical input) instead of 偶 然 (*quzen*, coincidence).
- 5. Reading mistake, e.g. 色欲 (*shikiyoku*, sexual lust) instead of 食欲 (*shokuyoku*, appetite).

When writing Japanese sentences, it is normal for learners of non-kanji areas to produce input words with $r\bar{o}maji$ on the keyboard and to leave the conversion to kanji or kana to the machine. However, without checking the accuracy of this automatic conversion, mistakes and errors are likely to occur. In order to check the conversion, learners need to recognize characters quickly and accurately. As mentioned above, it is important to educate the eye. Effective checking and correction depend on fast control. For that reason, training in checking character mistakes becomes important. In addition, since prefixes and suffixes are often used, their knowledge (shiru), cognitive ability (wakaru) and operational capability (dekiru) are of great help.

In summary, at the level of kanji ga dekiru education, the most important ability is the recognition of kanji. I am convinced that the ability to recognize kanji and their correctness in context is much more useful than the ability of producing kanji writing them by hand, though. This does not imply that kanji handwriting should be excluded from kanji education.

4 Concluding Remarks

Above, I have discussed the need to teach the three linguistic competences shiru (knowing), wakaru (understanding) and dekiru (being able) in a balanced manner from the viewpoint of kanji learning. We came to understand that as concerns shiru, it is important to foster an ability to quickly and accurately recognize the difference of kanji form. Students need to learn to see kanji. As for wakaru, it is important to learn kanji as (parts of) words and to understand texts. This requires knowledge about the structure of *kanji* strings. Finally, dekiru requires the ability to quickly and accurately control the conversion of alphabetic input into machines. The ideal learning process must include these three interrelated abilities. What is important in *kanji* teaching is to clarify their mutual relationships, decide upon their respective roles and to harmonize them. In the field of education, two methods are recognized, the analytic and the synthetic methods. The first consists in analysing the language and learn language mechanisms, the latter consists in comprehensively remember the language and (re-)produce it. Both methods are relevant also in linguistic education and the approach proposed in this essay does justice to both. It is desirable that learners also apply an analytic approach, since it is not enough for them to learn and apply language samples as they appear in authentic language use. What matters is the order in which the two approaches are carried out. The best strategy is to start with a synthetic approach which allows the memorization and comprehension of a text and then turn to the analytic approach that allows for a deeper comprehension of text structures. To put it briefly, I advocate the point of first learning a language and then moving on to better understand it.

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