

Community-based orthography development: Experiences from the Kuy

Kees Jan Bos

Mirjam Bos

Christina Page

International Cooperation for Cambodia

Abstract

Developing an orthography for a minority language requires that the writing system is embraced by members of the language community. This happens only when the community owns the orthography development process. In the case of Kuy speakers in Cambodia, the orthography development process is faced with the challenges of a broad phonemic inventory, the use of the complex Khmer script and the fact that few Kuy speakers have had the opportunity to acquire good literacy skills in Khmer. Despite these complications, community participation in the orthography development process has been significant through a process of language awareness meetings, an orthography workshop, the establishment of a Kuy Language Committee, and orthography testing. These activities have encouraged a cross-section of the Kuy community, including some with limited literacy skills, to contribute to the development of their orthography. This paper outlines the activities undertaken in the creation of a community-based orthography development process that lays a foundation for ongoing community initiatives in Kuy language development and preservation.

1. Introduction: The Kuy in Cambodia

Kuy people are found in three countries: Cambodia, Thailand and Laos, with a combined total population of approximately 380,000. The number of Kuy in Cambodia is estimated to be greater than 23,000. The Cambodian Kuy live primarily in Preah Vihear Province and the northern part of Kompong Tom, as well as in Kratie and Stung

Treng provinces (Mann and Markowski 2005, 5-6). Most Kuy earn their livelihood through subsistence rice farming.

Although there are four known Kuy dialects in Cambodia, only two are spoken by a large number of speakers and are considered viable: the Kuy Ntua dialect spoken in the north part of Preah Vihear, and the Kuy Ntra dialect spoken in southern Preah Vihear and northern Kompong Tom. Recent research and language development activity has focused on these two dialects, which account for 90 percent of Cambodian Kuy speakers. The two dialects share a high degree of lexical similarity (Mann and Markowski 2005, 16, 20), and thus the orthography development process has engaged both groups simultaneously with a goal of producing an orthography that is accepted by speakers of both dialects.

In 2005 language researchers with International Cooperation Cambodia (ICC), moved to Preah Vihear province to begin researching the Kuy language and facilitating language development. The development of an approved orthography for Kuy was one of the target outcomes of this research, in order to allow the Kuy to preserve their linguistic and cultural heritage and participate in language development.

2. Principles of Orthography Development and the Kuy Orthography Development Process

An effective orthography must meet four major criteria: it must represent the sounds of the language well, be acceptable to the community, be teachable, and be able to be reproduced (Cahill and Karan 2008, 1). Of these factors, community acceptability is a highly relevant factor determining whether an orthography will be used; simply

stated, if the community does not like the way their language is written, they are unlikely to use the orthography (Powlison 1968, 3). Thus, it is not sufficient for linguists to develop an orthography without significant community input and decision making. For this reason, effort was made to involve the Kuy community in each phase of the orthography development process.

The development of an orthography for the Kuy in Cambodia brings several challenges. The first of these is the government mandate that all minority languages in Cambodia be written using Khmer script. The Khmer orthography is considered to be a “deep orthography”, that is, an orthography with a complex relationship between sounds and symbols (Cahill and Karan 2008, 7). This complexity requires significant effort for teaching and learning the writing system. In its favour, however, is the ability of the Khmer script to represent the large number of Kuy vowels with existing symbols. Additionally, the use of Khmer script allows for an easy transition from reading Kuy to reading Khmer, and vice versa, as confirmed by experience in other Southeast Asian languages (Kosonen 2004), as well as the five other minority languages in Cambodia with Khmer script based orthographies.

A major challenge faced in the orthography development process is the small number of Kuy speakers who are functionally literate in Khmer, and thus only a small percentage of Kuy speakers are able to fully participate in the orthography development process. However, a good orthography is one that has full community acceptance, and that the speakers of the language enthusiastically choose to adopt. A high degree of community involvement is needed in order to ensure this kind of acceptance and support of the new orthography (Cahill and Karan 2008, 12). Thus, a process of

orthography development that incorporated the Kuy community as much as possible needed to be developed; but at the same time, a process that allowed for the involvement of participants with limited literacy skills. The process has involved the following stages:

1. Village language awareness meetings
2. Orthography development workshop
3. Formation of a Kuy Language Committee; resolution of some orthography difficulties
4. Orthography testing to address remaining orthography difficulties
5. Formal approval

In each of these stages, a team of linguists worked together with members of the Kuy community to develop the orthography.

2.1 Village Language Awareness Meetings

In the first half of 2007, meetings with local leaders were held in five communes (government jurisdictions made up of two or more villages), three in the region where Kuy Ntua is spoken and two in the Kuy Ntra area. After a short introduction about the world's minority languages, two hand-outs were discussed. The first one showed how a minority language can subtly be lost in the presence of a dominant language of wider communication. The second hand-out was adapted from Fishman (1991) and described the process of language loss and revitalization. After discussion of the different stages of language loss, participants in each meeting concluded that the Kuy language is in real and acute danger of being lost. Participants readily understood the benefit of having a

Kuy orthography as a tool for language preservation. The language researchers explained that Khmer script could be adapted to Kuy in order to capture the unique sounds of the language and discussed the scope and benefits of Kuy language development.

2.2 Orthography Development Workshop

After gaining community awareness and support for the orthography development process, an orthography development workshop was arranged. Prior to the workshop, a phonological analysis of Kuy was completed, providing clear information on the sounds that must be represented orthographically. Following this, in July of 2007, an orthography workshop was held, sponsored by the Provincial Department of Education and ICC. The 25 workshop participants represented both the Kuy Ntua and Ntra dialects. These are the two linguistically viable dialects of Kuy in Cambodia, with approximately equal influence; both groups were included in the workshop process in order to ensure that the orthography developed would be usable by both groups.

The orthography workshop was designed to allow participants to determine how each sound in the Kuy language should be written. Groups of five participants were given a list of words (in Khmer), and asked to write each word in Kuy; each group generated a preferred spelling of the Kuy word based on their knowledge of Khmer orthography. After the groups had completed this task, the large group discussed how each smaller group had chosen to write the word, and attempted to reach a consensus on the preferred way of writing each sound. In some cases, this differed between the two

dialects. At the conclusion of the workshop, six participants were chosen by the large group to continue the orthography development work (3 from each dialect) by forming a Kuy Language Committee.

2.3 Formation of a Kuy Language Committee; Resolution of Some Orthography

Difficulties

The development of the orthography committee was a key step in ensuring continuous community involvement. Several of the committee members have been key leaders in advocating for language development in their villages. Following the workshop, the six members of the language committee convened several times to resolve most of the remaining orthography issues. Moreover, a story booklet was produced in both dialects, which was informally tested in Kuy communities.

The tentative orthography was presented to the linguists at the Royal Academy of Cambodia in September 2007. Four of the language committee members participated in the meeting, and the orthography development efforts were positively received by the Royal Academy. For the Kuy Ntra orthography, however, one significant problem remained, requiring testing. The Kuy Ntra members of the language committee, along with ICC expatriate staff, determined that the remaining orthography issues should be worked out through a process of testing.

2.4 Orthography Testing to Address Remaining Orthography Difficulties

Many of the remaining orthography issues pertaining to the Kuy Ntra dialect relate to the linguistic phenomenon of register, a feature common to Mon-Khmer

languages. Preecha (1993) describes the first register as the tense register, and the second as the lax register. The tense register, as described by Preecha, is characterized by a clear sound, and higher pitch. The lax register is characterized by a breathy voice quality, and slightly lower pitch. Among the Kuy in Cambodia, the register phenomenon is most present in the Kuy Ntra dialect, while also present weakly in the Kuy Ntua dialect.

Initially, it was thought that the use of second series consonants in Khmer would adequately account for vowel register in the orthography; that is, first series consonants would be used alongside tense register vowels, and second series consonants used alongside lax register vowels. The Kuy Ntra members of the language committee felt that this way of writing could represent the sounds of the language well. However, a problem of ambiguity arose with certain groups of vowel sounds. In some cases, the Kuy vowel inventory included distinct pairs of clear and breathy vowels that in Khmer script only occur with second series (i.e. breathy) consonants. Three such pairs were encountered: /i:/ vs. /ḭ:/ /u/ vs. /ṵ/ /u:/ vs. /ṵ:/

The vowel sounds associated with the corresponding first series consonants are (in the same order): /ɕj/ /o/ /o:/

The following options were explored in order to resolve this orthographical problem.

The first option, initially chosen by the language committee, was to write the clear vowel with the corresponding first series consonant. In that case /ɕj/ and /i:/ would both be written with the same consonant (𑜀 representing /p^h/ in 1st series):

e.g. ផ្អ ^៤ /p^hɛj/ and ផ្អ ^៤ /p^hi:/ would have identical orthographic representations. It was felt that this could create difficulty with ambiguity in the orthography, particularly for new readers.

A second option was to write the vowel sounds according to the Khmer orthographic convention (ផ្អ representing /p^h/ in 1st series, and ផ្អ representing /p^h/ in 2nd series), and using an additional Khmer symbol, the ផ្អ to indicate breathy register.

e. g. ផ្អ ^៤ /p^hɛj/ and ផ្អ ^៤ /p^hi:/ and ផ្អ ^៤ /p^hi:/

However, the second series consonant with the clear vowel was thought to be “too heavy” (i.e. too breathy) by some members of the language committee, although this way of writing allowed for a three way distinction to be easily made.

A third possible way of making the distinction was proposed, using a symbol (ផ្អ) which in Khmer convention gives a first series consonant second series’ value.

e.g. ផ្អ ^៤ /p^hɛj/ and ផ្អ ^៤ /p^hi:/ and ផ្អ ^៤ /p^hi:/

Although this represents the Kuy sounds in a linguistically correct manner, it departs from Khmer convention in that the symbol (ផ្អ) is never with first series consonants that already have a second series counterpart. It was also felt to be somewhat awkward for reading and writing. Since at the end of the discussion about these three possible ways of writing Kuy there was no clear solution, it was agreed that each of these three options would be tested using a formal test in the community.

2.4.1 Orthography Test Design

Because both ease of reading and sociolinguistic acceptability were key concerns at this stage of the orthography test, a multi-part test was developed to address both areas of concern. The aim of the test was to determine which of the three orthography options was most easily read, and therefore likely a good phonological representation of the language, and which option was most accepted by the community. The test required participants to read individual words as well as short texts, an approach successfully used for community based orthography testing in other contexts (Kosonen 2004; van der Haak 1999).

The first portion of the test required participants to read a short passage in Khmer. This was to ascertain whether they were sufficiently literate to complete the rest of the test. During testing, the participants' reading level was noted on a qualitative scale: reads fluently, reads moderately well or weak reader.

Second, the participants were asked to read several short sentences in Kuy. This was to help them transition from reading Khmer to reading in Kuy.

Third, participants were asked to read six ambiguous Kuy words. Although all were written with first series consonants, either a first or second series vowel read with the consonant would generate a meaningful Kuy word. The testers noted whether participants read the word with the first or second series value. The purpose of this section was to determine how participants would handle orthographic ambiguity (i.e. whether first series vowels would always be read with first series consonants, or whether second series vowels would also be paired with first series consonants).

In the next section of the test, participants were shown three possible ways of writing a single Kuy word, and asked to state their preference, being asked questions such as “Which do you think is the right way of writing this word?”, “Which way of spelling do you like?”. This was to address the sociolinguistic aspect of orthography testing by asking participants’ preferences for different spelling possibilities.

The fifth and final component of the test required participants to read three short stories in Kuy. The purpose of this test was twofold: to determine which orthographic possibility was easiest for the participants to read, and to provide them with another opportunity to give input as to which system they preferred. The stories were composed by members of the Kuy language committee, and each story included a selection of words with the vowels to be tested. Each of the three stories was written using a different one of the orthographic possibilities. This was randomized among the participants; for example, some read the first short story with only first series consonants used with clear vowels, some read the first story with the (\tilde{o}) used to distinguish first and second series clear vowels, and others read the story with both first and second series consonants used with clear vowels. As the participants read, the testers noted words that were read incorrectly. After reading all three stories, the testers marked which of the three stories the participants read with the greatest degree of fluency, and participants were asked which way of writing they felt was the easiest to read and most correct.

2.4.2 Orthography Test Participants

The orthography test was carried out in December 2007 in four villages in Preah Vihear province. Participants for the test were required to be of Kuy ethnicity and fluent in Kuy, as well as able to read in Khmer. Each of the testers travelled with one member of the Kuy Language Committee, completing the testing process together.

In total, 31 orthography tests were completed. Several more participants began the test, but the testing was discontinued when their reading ability was judged to be insufficient by the testers. In some cases, the participants were able to read the Khmer text, but had difficulty decoding the Kuy texts. A possible explanation is that although the participants had sufficient education and literacy experience to read many Khmer words by sight in the Khmer text, they lacked a sufficient understanding of the Khmer alphabet to be able to decode words they had not previously read.

Eighteen men and 13 women were participants in the orthography test. They ranged in age from 12 to 63, with a median age of 28 and a mean age of 33. All had attended formal schooling, with a range of grades completed from grades 1 to 12. The median level of education was 5 years, with a mean education level of 4.8 years. Eleven were judged to be fluent readers, 17 as moderately able readers, and three as weak readers.

2.4.3 Orthography Test Results

After orthography testing, the results were brought to the Kuy Language Committee for discussion and approval. A recommendation was made on the test results, which indicated both ease of reading and broader community preference for

second series clear vowels to be written with second series consonants. This method of spelling provides several potential benefits. First, this spelling method is like that used by the Kuy Ntua dialect, allowing for greater sharing of materials and a common spelling system. Second, the lack of ambiguity in spelling presents pedagogical advantages, making the learning process easier for new literates. Third, because the use of second series vowels with second series consonants is like that used in the Khmer orthography, the transition from reading Kuy to reading Khmer would be facilitated by using this method. The language committee agreed to use the method of spelling recommended by the test, and to proceed towards government approval of the Kuy orthography.

Besides the clarity gained in resolving orthography problems, other benefits were gained by the orthography testing process. First, it provided an additional opportunity to raise awareness in the community, allowing the language committee to share developments in the Kuy orthography development process with village leaders and test participants. Second, it broadened the number of participants in the orthography development process beyond those who had initially been involved in the orthography workshop and language committee; in general, a wider social group was represented in the testing than in the initial development process. Third, the language committee's participation in the research ensured that they owned the results, and that those decisions were not unilaterally imposed by the researchers.

2.5 Formal Approval

In the development of the Kuy orthography, ICC has continually sought cooperation with official institutions such as the Royal Academy of Cambodia. After formal orthography testing had been completed, the tentative Kuy orthography was presented to the Royal Academy in April 2008. A statement of acknowledgement from the Royal Academy will be an important step towards formal approval. Once the Kuy orthography is ready to be used for educational purposes, ICC will request final approval from the Ministry of Education, Youth and Sports.

3. Lessons Learned and Future Orthography Development

The story of the Kuy orthography development in Cambodia is far from over. As experience among other minority groups demonstrates (Person 2008), after a period of use in the community, revisions to the orthography are sometimes necessary. For example, the researchers have speculated that perhaps, for the Kuy Ntra dialect, the additional marking of heaviness on second series vowels may eventually be dropped. However, because the community clearly has stated their wish to mark this feature, it will be marked initially in reading and writing Kuy. The Kuy now have the opportunity to test their orthography in the community in a broader and more “real” way than structured orthography tests facilitate.

Hopefully, the story of community participation in the Kuy orthography development will grow in the coming years. As mentioned earlier, only a small number of Kuy are literate in Khmer, and have thus been able to play an active role in orthography development at this point. (It should be noted, that some with fairly limited

literacy skills have been actively involved in the process, and were able to participate well in work that was carried out in a group setting). The development of the Kuy orthography provides an opportunity for more Kuy to gain literacy skills, and as they begin to produce and read their own literature, a broader cross-section of the community can become involved in the development of their writing system, and by extension, in the preservation and development of their language.

It is hoped that, by seeing their language in written form the Kuy people will gain in self-respect and self-confidence—a solid foundation for learning and a source of confident participation in national development.

References

- Cahill, Michael and Karan, Elke. 2008. *Factors in designing effective orthographies for unwritten languages*. SIL Electronic Working Papers 2008-001. Available online: www.sil.org
- Cha, Duk Geun. 2007. *Orthography development challenges in Western Cham*. Unpublished thesis.
- Fishman, Joshua. 1991. *Reversing language shift*. Clevedon: Multilingual Matters.
- Kosonen, Kimmo. 2004. *Testing Chong orthography in Thailand*. Paper presented at the Conference on Language Development, Language Revitalization and Multilingual Education in Ethnolinguistic Communities, Bangkok, Thailand.
- Mann, Noel and Markowski, Linda. 2005. *A rapid appraisal of Kuy dialects spoken in Cambodia*. SIL International. Available online: www.sil.org
- Person, Kirk. 2008. *Orthography creation and revision in Bisu: A drama in three acts*. Payap University, Chiang Mai, Thailand.
- Powlison, P.S. 1968. Bases for formulating an efficient orthography. *The Bible Translator*. 19:74-91.
- Preecha, Sukgasame. 1993. Correlates of the register complex in Kuay. *Mon Khmer Studies* 22:245-251.
- van der Haak, Feikje. 1999. *Orthography development for Bru Khong Chiem*. Unpublished .