Kamasau Orthography

Arden and Joy Sanders

0. Introduction

The Kamasau language is located in the East Sepik Province, about half-way between Wewak and Angoram. It is in the center of the Marienburg language family which has five other languages. This paper presents an overview of Kamasau orthography.

1. Phonemes

The Kamasau phonemes discussed in Sanders and Sanders (1980b) are given in the following chart, followed by a summary of the symbols chosen to use for the orthography.

Kamasau Phonemes

Vowels:			Consonants:				
i	ɨ	u	p	t	tš	k	ʔ
e	a	o	b	d	dž	g	
			mb	nd	ndž	ŋg	
			β	s		ɣ	
			m	n	ñ	ŋ	
			w	r	y		

The orthographic symbols chosen for the vowels and for the alveolar consonants are the same as the phoneme symbols. Of the six bilabial consonants, the symbol chosen for /p/ is **p** and for /b/ is **v**; the symbols chosen for the other four are the same as the phoneme symbols.

The symbols used at present for four of the five alveopalatal consonants and four of the six velar and glottal consonants are different from the phoneme symbols: /tš/ is **ch**, /dž/ is **j**, /ndž/ is **nj**, /ñ/ is **ny**, /g/ is **gh**, /ŋg/ is **ng**, /ŋ/ is **ng**, and /ʔ/ is **q**. The symbols chosen for /y/, /k/, and /g/ are the same as the phoneme symbols.

We need to address the issue of syllable patterns, since our present analysis differs from that given in Sanders and Sanders (1980b). There we proposed five syllable patterns: V(C), CV(C), CCV(C), CVV(C), and CCVV(C). Now our analysis is that all syllables begin with a consonant, so that means there is no V(C) pattern. Consonant clusters occur syllable initially, so we also have CCV(C). As we checked for unambivalent sequences of vocoids, we found none. (No /Coe/, /Coɑ/, or /Cɑe/ clusters.) The people preferred to write **w** for the word final /u/ sounds that we heard: **ghav gɨduw** 'I help you'; **ɨrew** 'moon'; and **kew** 'I give you'. Some preferred to write **y** word finally for /ɨ/ as in **ngɨm suay** 'junction', so these fill a hole we previously had in the syllable final consonant distribution. In the orthography we have been writing the final /w/ as **w**. But following the Pidgin pattern we have continued to write the final /y/ with an **i** for easier transfer as in the following words: **momoi** 'swing'; **mai** 'heavy'; and **kei** 'day before yesterday'.

Also we would now analyze the words **kuas** 'you sit', **puat** 'drum', **muai** 'where', **ngɨm suai** 'road junction', **tuan** 'right', **buid** 'strong', and **baj buede** 'ridge cap' as having vowel clusters /uɑ/, /uɨ/, and /ue/. We had previously analyzed these as being CCV(C) syllables with [u] interpreted as semivowel

/w/. But the people responded to these with a **u**, so we decided they must be vowel clusters.[1]

2. Neighboring Orthographies

None of the five other languages in the Marienburg language family has any language work being done at this time, and no orthographies have been developed for any of them. The Murik language is the nearest language with a developed orthography. Contact between the Kamasau and Murik people is very limited as the languages are unrelated and the Murik live on the coast, usually traveling by sea, and the Kamasau are inland. The Murik language orthography uses an **ɨ**, and a **v** for /ʋ/ as does Kamasau. It differs from the Kamasau orthography in that it represents /ɡ/ with **h** rather than **gh**. Also it represents /ŋ/ with **ŋ** (as we have done in Kamasau previously), and /ŋg/ and /ŋkh/ with **ŋg** and **ŋk**, respectively. The Murik language has contrast in the later two, so needs to maintain the distinction.

The Boiken language is the closest language to the west with an orthography. It too is unrelated and is about 50 km. from the edge of the Kamasau language. There is little contact between the Boiken and Kamasau people either. The orthography developed by Freudenberg (1974) also uses the **ɨ**. The Boiken language has no velar nasal. Freudenberg uses **f** for /ɸ/ because **p** is used for the stop /p/, and **h** for [ɡ] and [x]. The rest of the symbols used in the Boiken orthography are either comparable to those used in the Kamasau orthography or represented sounds not present in the Kamasau language.

[1] Palatalization turned out to be predictable, see section 7.2, so **y** is not a part of a consonant cluster either. The consonant clusters **br**, **gr**, **tr**, **pr**, and **kr** still occur.

The next closest language after that would be one of the languages around Maprik. These are so far away that there is very little contact.

3. Trade Languages

There was no orthography for the Kamasau language before SIL began to work in the area and no orthographies from neighboring vernacular languages which have influenced peoples' opinions about how to write the Kamasau language. Hence in formulating the orthography, we have tried to take into account particularly the English and Pidgin alphabets, since increasingly more children are going to school and are literate in those languages and familiar with those alphabets. We hoped thereby to make the transfer to reading vernacular as easy as possible. Pidgin was considered more than English, since it has more regular sound correspondences to vernacular than English, except that **ch** was chosen for the voiceless affricate because it parallels the English **ch**.

A committee of men met with us in 1978 to help formulate the alphabet, and their decisions and preferences were influential in the choices made. Originally we did not feel that **ny** should be used to symbolize the alveopalatal nasal, because we assumed that it would be confusing to English readers. However it was the committee's choice and has given no problems to readers.

Also the committee chose the letter **q** for glottal stop, preferring that to an apostrophe. This has also been tested and gives no problems. Glottal stop occurs both syllable initially and finally. In consultation with speakers of the language it was decided not to write the word initial glottal stop unless the **q** is followed by a /uV/. This is now an arbitrary spelling decision that arose from our original interpretation of [ᵘ] as /w/. Then, if /ʔwɑt/ was written as **wat** instead of **qwat**, the

orthographic word would be ambiguous between /ʔɯɑt/ and /ɯɑt/ (in one dialect). After reinterpreting the [ᵘ] as /u/ (as they preferred to write it), the initial **q** is unnecessary since /ʔuɑt/ would be **uat**, which contrasts with /ɯɑt/ **wat**. But the men questioned prefer to retain the initial **q**, because they have gotten used to how it looks. Therefore we have been writing 'thorn' as **quat**. There are several other words that are similar: **quan** 'many', **quayi** 'man/men', **quem** 'white', and **wapi quaw** 'bird of paradise'.

The voiceless bilabial fricative is symbolized by **p**, since it is filling the position of a bilabial stop. This transfers well since in reading a Pidgin **p** the speakers of the language usually use a fricative (except some of those who have gone to school and know the voiceless stop as well).

The symbol chosen to represent the bilabial fricative /ʙ/ is **v**, which transfers quite well since the sounds are quite close. The Pidgin words **hevi** and **vot** are spoken with the /ʙ/, for **gavman** an English **v** is used, and in the word **faivpela** either /v/ or /ʙ/ is used. There is no contrast between these sounds in the Kamasau language or in English, so this works well. We have found out that one of the dialects does not have this phoneme, but it is infrequent in the other dialects as well so is not too important.

The voiced velar fricative /ɣ/ has been symbolized by **gh** and has been well accepted. This rarely used digraph in the English word **ghost** is easily transferred to its own unique usage in the vernacular. One person who had been to school looked at it and seemed pleased at this choice, as he recognized that the symbol **h** indicated that the wind was coming out on that sound.

The above are the sounds which might raise questions because they are slightly different in usage from English and Pidgin, but which have been tested and found to be adequate.

The other phonemes which have similar sound correspondences to English and/or Pidgin are self-evident and so have not been discussed.[2]

Questions have also been raised concerning the committee's choice of the symbols **ɨ** and **ng**. The symbol **ɨ** for the high central vowel does not appear to be causing any problems at the moment. It is in definite contrast to the other vowels. People read it with no difficulty and it enables them to readily determine the vowel quality in words. They do not mind that it looks different than either English or Pidgin. This symbol is also in use in the Boiken and Murik language orthographies. After recent testing and questioning of people we feel it is necessary to represent it for the sake of contrast. The people prefer having it in the alphabet.

The one problem area which remains concerns the two phonemes /ŋ/ and /ŋg/. Initially we gave the committee of men two options:

a. **ng** for prenasalized nasal stop
   ŋ for velar nasal

or b. **ng** for both prenasalized nasal stop and velar nasal.

They chose the second option which we realized would present more difficulties for teaching due to underdifferentiation, but we went along with their decision and tested it. Before we began our first trial literacy with illiterates in 1981, however, some school leavers reading portions of translated materials came to one sentence that they could not understand on the first try. They had to reread it several times before they finally got the sense of it. The sentence involved the two words /nɨŋg/ 'for the purpose of' and /nɨŋ/ 'his own'. When

[2] All correspondences between the Kamasau language and English and/or Pidgin are listed in Appendix A.

written in that orthography both came out **n‡ng**. At that point we decided, with the school leavers, that two separate symbols needed to be used. Without approaching the men who formed the initial committee we began using **ng** and **ŋ**.

We have been happy with this decision and developed primers using this orthography. The people have no difficulty reading the vernacular, but we have noted some difficulty in those transferring from vernacular to Pidgin. Since they have been taught that **ng** at the end of the word is the prenasalized stop, they pronounce Pidgin words like **long** and **bilong** incorrectly.

The functional load of /ŋ/ in vernacular is quite high, as it occurs frequently word initially, medially, and finally. We have wondered how the people might feel about the unusual symbol several years from now, and how they will reproduce materials with the **ŋ** on their own. Some of our materials have been printed with **ng** and **ŋ**, while others have been printed with only **ng**.

We tested two speakers of the language with a set of ten sentences. Some were written with the symbols **ng** and **ŋ**. These were read with no difficulty. Others were written with just **ng**. Those took longer to figure out. Then I tried writing some with **ng** and **ngg**, as suggested by a consultant. These looked funny to them (and us!) but they were able to distinguish readily the different words. We asked which of the symbols they preferred, and they said they were willing to try **ng** and **ngg**. But after printing a story with those symbols, their reaction was that it looked funny. If we find there is too much ambiguity we will try using **ng** for both phonemes except for the minimal pair /n‡ŋ/ and /n‡ŋg/ which we will try spelling **n‡ng** and **n‡ngg**, respectively, to get feedback. We are uncertain as to which solution to this problem would be the best, so we feel it needs continued testing to see what is preferred.

4. Word Division

Word division has caused complications in two areas: verb phrases and the particle **ne**.

4.1. Verb phrases

We have debated whether to combine sequences of verbs which form one semantic unit into one orthographic word, or to divide them into two smaller words. Since these verbs can be combined in different ways to have different meanings we had kept them separate. There are two types of verb phrases. One type is illustrated in (1-4).

1) K-eti n-owi
   1s-get.3ms 3ms-come.down[3]
   'I get him/it.'

2) N-owi n-aghe.
   3ms-put.3s 3ms-go.down
   'he puts him/masc. object down.'

3) N-owi n-i.
   3ms-put.3m 3ms-comes
   'He comes down.'

4) Gos w-eq w-ughe.
   sago 3f-puts.3f 3fs-goes.down
   'She cooks sago.'

In these examples the verb phrase is very close-knit. It is not possible to put any modifiers between the two parts of the verb phrase. In testing the men, they read them equally well whether

[3] The following abbreviations are used for pronouns in the morpheme glosses: '1', '2', '3' indicate person; 's', 'p' indicate number; 'm', 'f' indicate gender.

the two parts were combined into one orthographic word or were written as two words. However, they said they preferred to write them as one unit, i.e., **Gos weqwughe.** So we are going to try this out. When we gave them a text with these phrases written as one word, the men were generally satisfied. Their sole criterion for judging acceptability of the results was the length of the resulting word; their preference is for short words.

The second type of verb phrases is not quite as close knit as the first. As illustrated in (5-6), modifiers (including **ne**) can occur between the verbs in these phrases.

5) K-are-ne k-o.
   1s-carry-yet 1s-go
   'Carrying it I go.'

6) Yumbo w-are bri w-andi?
   things 2p-carry perhaps 2p-come
   'Are you coming carrying things?'

We feel that because the modifiers can occur between these verbs, these should be written separately. The addition of **ne** in the middle seems to result in unacceptably long words.

4.2. The particle **ne**

The particle **ne** can follow verbs, adverbs, or adjectives. Examples are given in (7-10).

7) Ni ɨri ne n-o.
   3sm one yet 3sm-goes
   'He is going alone.'

8) Nge brequ ne k-o.
   1s bad yet 1s-go
   'I go quickly.'

9) Nge segi ne g-adi.
1s no yet 1s-come
'I just came (for no reason).'

10) Ni n-andi segi ne.
3sm 3sm-comes no yet
'He hasn't come yet.'

In the past, the particle has been at times written separately and at other times affixed to the preceding word. We tested two men, and they could read sentences equally well whether the **ne** was separated or combined with the preceding word but said they preferred them to be together. So we will try this. The above sentences then be written as follows.

7) Ni ɨrine no.
8) Nge bregune ko.
9) Nge segine gadi.
10) Ni nandi segine.

This may be helpful in another way as well. There are two other homophones, one meaning 'thoughts' and the other 'he eats', which have at times been confused with this particle. So perhaps it will help clarify things for them as well. We hope it will assist new literates in learning to read.

5. Effect of Orthography on Literacy

The major complication in literacy (aside from dialect problems to be discussed later) will be teaching **ng**, if this symbol is chosen to represent the velar nasal instead of **ŋ**. In the present primer series the phoneme /ŋ/ is introduced in the second book of the series (lesson number 67 of 105). The primer has used the symbol **ŋ** until now. This phoneme is quite common, occurring word initially, medially, and finally. The less frequently used /ŋg/ is introduced in book three of the primer

series (lesson number 84). If **ng** were used for /ŋ/ this lesson would need to be changed to include more drill of specific words with word medial **ng**, so that they would become sight words rather than words to be sounded out. Additionally, the spelling for **niŋg** and **niŋgg** will have to be taught specially. Finally, other primer lessons will have to be changed as they currently use the symbol **ŋ**. On the other hand, using **ng** for both /ŋ/ and /ŋg/ will make the orthography closer to that of Tok Pisin and English.

Other differences between trade language orthographies and the Kamasau orthography will also affect the transfer in learning to read each.[4] The following are the extra items which must be taught to transfer from the Kamasau language into Pidgin:

1. The long vowel quality of the letters **e**, **i**, **u**.
2. The short quality of the vowel **o** (**dok**).
3. The different pronunciation of some vowel clusters -
   aim in Pidgin is at times **bai-im**
   uai in Pidgin is at times **bu-ai**.
   (These are in contrast to a vowel cluster with one stress in the Kamasau language.)
4. The letters **f**, **l**, and **h**.
5. The consonant clusters **sp**, **sk**, **st**, **str**, **skr**, **pl**, **bl**, **sl**, **kl**, **sm**, and **sn**.

For those who have already learned to read Pidgin, but not English, the following letters must be learned in transferring to reading vernacular:

1. The vowel **ɨ**.
2. The consonants **ny**, **gh**, **ch**, **nj**, **q**, and **ng**.
3. The vowel clusters **ua**, **ue**, and **ui**.

[4] See footnote 2.

4. The vowel cluster **uai** which is one syllable in vernacular rather than two as in Pidgin.
5. The consonant clusters **ngr** and **mbr**.

For those who can read English as well, the same items would still need to be learned as for Pidgin, except for the **ch** which occurs in English.

6. Dialect Considerations

It has been impossible to ignore dialect differences in the Kamasau language, since it is made up of only 650 speakers speaking three or four dialects. As reported in Sanders and Sanders (1980a), a dialect survey conducted in March 1978 after eight months working in the language showed four dialects by lexicostatistics: Tring-Wau, Yibab-Wandomi, Kamasau, and Kenyari-Paruwa with the percentages running from 84% to 94% cognate (i.e., phonetically similar words synchronically).

When the phones were examined, the villages seemed to divide into three groups: Tring-Wau-Kamasau, Kenyari-Paruwa, and Yibab-Wandomi. The differences in voicing and palatalization within these three dialects will be discussed in Section 7. But there are also some consistent phonological changes. The major change involves the consonants related to /s/ and /t/ in the Tring dialect. In Kenyari both /s/ and /t/ become /h/, while in Yibab-Wandomi /s/ becomes /ʦ/ and /t/ remains unchanged. Examples are given in the following chart.

Trg-Wau-Km	Yb-Wand	Ken-Par	English
nas	naʦ	nah	he sits
wase	waʦe	waha	fire
sawo	ʦawo	hawo	tooth
sual	ʦual	hual	junction
nati	nati	nahi	he dies

The verb person prefixes and suffixes do not use the phonemes /s/ and /t/ and so their functional load is somewhat lower than it would be otherwise. We plan to maintain the **s** and **t** distinction as in Tring. This will make spelling harder for Kenyari-Paruwa speakers, but reading easier for the other dialects. In addition, most terms (at least those with these regular changes) can be determined in context in the other dialects.

There are also lexical differences which cannot be predicted, and some other phonological changes which are not as regular. We are hoping that with some teaching and practice people will be able to read materials in the Tring dialect. Tring is in the center of the language and people from Tring have frequent contact with people from all the other villages in the language.

We held a course for older men who could read Pidgin to help them transfer to reading the Tring dialect of the language. This course was an experiment to see if transfer would be possible with the present primer and post-primer materials. The three men at the course, one from each of the dialects, were able to transfer to reading the Tring dialect. As we worked checking through the primer it seemed apparent that those from Kenyari-Paruwa would be able to use the materials as they are, but at least for the primer the Yibab-Wandomi readers were going to require some revision. We have not decided which of the following options to use:

1) make additional lessons at the beginning of the primer for the Yibab-Wandomi dialect, then move into the primer; or
2) develop completely separate primers for this dialect, then near the end of the class try to bridge into Tring dialect materials.

It is not certain, however, that people in the other dialects will want to make the effort to read the Tring dialect. An ancestor story book to be distributed will have stories in all the dialects, so it should be interesting to see people's response to this.

7. Morphophonemics

There are two major areas in which morphophonemics affect the orthography. These are voicing (with possible prenasalization) of consonants and palatalization of consonants preceding front vowels.

7.1. Voicing of consonants

The voicing and prenasalization of stops is a minor feature of the Tring dialect, occurring only in one preposition when following a word which has a final nasal consonant. (The only other preposition that begins with voiceless stop is **pu** 'from' in (14) which never occurs in a similar environment.)

11) /ŋe **stɑɑ pe k-o**/
1s store to 1s-go
'I go to the store.'

12) /ŋe **bɑj pe k-o**/
1s house to 1s-go
'I go to the house.'

13) /ŋe **wuny mbe k-o**/
1s garden to 1s-go
'I go to the garden.'

14) /nɨ **wuny mbe pu n-ɑndɨ**/
3sm garden to from 3sm-comes
'He has come from the garden.'

We have been writing the preposition as **pe** in all contexts, although in the Yibab-Wandomi dialect this preposition is always pronounced /**mbo**/.

In a second process involving the voicing of verb prefixes, there is variation throughout the dialects. Three of the four dialects in the language have major phonological differences. In the Yibab-Wandomi dialect, the first person singular and plural, and second person singular verb prefixes are consistently voiced, while in the Tring-Wau and Kenyari-Parua dialects they are voiceless unless they are followed by a nonprenasalized oral voiced stop in the verb stem or suffix. Other prefixes remain unchanged across the dialects. Examples are given in the following chart.

Yib-Wan	Tr-Wau	Ken-Par	English
/g-o	k-o	k-o/	I go
/g-at|	k-at|	k-ah|/	I die
/g-ad|	g-ad|	g-ad|/	I come
/g-ab	g-ab	g-ab/	I hit
/gu-o	ku-o	ku-o/	you go
/gu-at|	ku-at|	ku-ah|/	you die
/gu-ad|	gu-ad|	gu-ad|/	you come
/gu-ab	gu-ab	gu-ab/	you hit
/b-o	p-o	p-o/	we go
/b-at|	p-at|	p-ah|/	we die
/b-ad|	b-ad|	b-ad|/	we come
/b-ab	b-ab	b-ab/	we hit
/n-o	n-o	n-o/	he goes
/n-at|	n-at|	n-ah|/	he dies
/n-and|	n-and|	n-and|/	he comes
/n-amb	n-amb	n-amb/	he hits

The following examples from another conjugation in the Tring dialect show the same change takes place in the third person neuter singular (3ns) prefix when person suffixes are added.

/ŋe num k-ure-g/
1s sickness 3ns-need[5]-for.myself
'I am sick.'

/nɨ num k-ure-w/
3sf sickness 3ns-need-for.herself
'She is sick.'

/nɨ temɨ num k-ure-m/
3p two sickness 3ns-need-for.themselves
'The two men are sick.'

/nɨ num g-ure-g/
3sm sickness 3ns-needs-for.himself
'He is sick.'

/begɨ num g-ure-gu/
1p sickness 3ns-need-for.ourselves
'We are sick.'

Compare these with /ŋe kopɨ kɨpɨŋ/ 'I work coffee for him' where the voiced nasal velar does not cause voicing in the prefix.

By adding different indirect objects to the verb /e/ 'I give', we can see the voicing changes again.

/ŋe k-e-w/
1s 1s-give-3sf
'I will give it to her.'

/ŋe g-e-g/
1s 1s-give-3sm
'I give it to him.'

[5] The gloss of /ure/ as 'need' is uncertain.

/ŋe k-e-m/	/ŋe k-e-ñ/
1s 1s-give-3pm	1s 1s-give-3pf
'I give it to them/msc.'	'I give it to them/fem.'
/begɨ p-e-w/	/begɨ b-e-g/
1p 1p-give-2s/3sf	1p 1p-give-3sm
'We give it to her/him.'	'We give it to him.'
/begɨ p-e-m/	/begɨ p-e-ñ/
1s 1s-give-3pm	1p 1p-give-3pf
'We give it to them/masc.'	'We give it to them/fem.'

Only the masculine suffix marker, the voiced velar stop, causes the voicing changes in the subject marker, as there are no other stops in prefix markers.[6]

We are not sure whether this is actually a voicing or a devoicing process, as we have not done diachronic analysis at this time. But we feel it would increase the reading load for all the villages to symbolize all the prefixes which change as voiceless stops. On the other hand, to make tham all voiced would facilitate two villages (Yibab-Wandomi), but would increase the work load for the other five villages. So we propose maintaining the distinctions as found in the Tring-Kamasau-Kenyari dialect. Since the voicing occurs consistently in the Yibab-Wandomi dialect it should not be as difficult for them to transfer. In our first course for older speakers, the man from Wandomi was able to read the materials as written. We still hope to do further testing of readers from other dialects.

7.2. Palatalization of consonants

[6] The other prefix markers are a liquid (r), a fricative (g), nasals (m, n), and semivowels (y, w).

The other phonological phenomenon that is relevant to this discussion is palatalization of velar contoids when followed by the front vowels /e/ and /ɨ/. Since this is predictable, the palatalized stop is an allophone of /k/. The [kʸ] and [gʸ] in Tring-Wau have regular correspondences in the other dialects as shown in the following chart.

Tr-Wau	Kam	Yb-Wnd	Kn-Par	
[ky-ew	k-ew	dž-ew	tš-ew]	I-give.you
[ky-e-q	k-eq	dž-ɑ	tš-eq]	I-put.her
[ky-es	k-es	dž-et	tš-eh]	I-get.up
[ky-ewo	k-ewo	dž-ɑwo	tš-ewo]	I-go.up
[ky-ɨ	k-ɨ	dž-ɨ	tš-ɨ]	I-hit.him

In the Tring dialect the [ky] is at times realized as [tš], as in the Kenyari dialect.

[gos tšeg/kyeg wughe]
sago 1s-put 3sf-goes.down
'I cook hot water sago.'

Because Kamasau village did not have any palatalization, we wondered if this might be the underlying form, and began writing the words without any palatalization, i.e., **Gos keg wughe.** It has been well accepted and read without any problems in Tring. Other palatalized words which are spoken either with or without palatalization in the Tring dialect include the following forms.

Variations	Gloss	Spelling
segyɨ/sedžɨ/segɨ	'no'	**segi**
duɑgyɨ/duɑdžɨ/duɑgɨ	'cassowary'	**duagi**
gyɨdmo/džɨdmo/gɨdmo	proper name	**Gidmo**
kyeme/tšekme/keme	'bat'	**keme**

In all cases, people preferred to write these without the palatalization. Therefore we do not feel we need to symbolize this in the orthography.

In a related phenomenon, the masculine object is indicated in the verb with /ɨ/. Its location seems to vary. We have heard [b-uʔod-ɨ/buʔoɨd/buʔoɨdž] for 'we see him'. These forms should be compared with [b-udoʔ] 'we see her' and [ɨye kapɨ/kaɨp] 'I pick the coconut.' The word for 'husband' follows a similar pattern: [ŋamɨ/ŋaɨm]. These variations appear to be dialectal. The first instance, [buʔoɨdž], shows that an [ɨ] preceding a consonant can also cause palatalization of the consonant. We are writing these words as **buqoid**, **iye kaip** and **ngaim**. Now we need to test how readers from other dialects respond to these choices.

Appendix A

The following chart lists the transfer values between the Kamasau orthography and that of Pidgin and English. The following conventions are used.

1) If a letter has the same sound in Pidgin or English as in the vernacular but a different spelling, this is marked with parentheses. ()
2) If the spelling is the same, but the pronunciation is different, this is indicated with brackets. []
3) In some cases the final consonant is voiceless in Pidgin, whereas in English the same consonant would be voiced. These are <u>underlined</u>.
4) Those that are the same in sound and representation are unmarked.

Symbol		Kamasau examples	Pidgin	English
Consonants				
1.	b	bobo 'aunt'	banana	banana
		bab 'we do'	rap	rub
2.	d	dodi 'door'	dai	die
		gad 'I do'	hait	hide
3.	p	pu 'pig'	pik	[pig]
		kap 'I do'	tuptup	[cup]
4.	t	tami 'string bag'	tupela	two
5.	f	//none except for loans//	faiv	five
6.	g	wuge gab 'I pound sago'	givim	give
		bag gab 'I feed them'	dok	dog
7.	k	ko 'I go'	kam	king, (come)
8.	h	//Kenyari & loans??	haus	house
		hagi 'no', hami 'string bag'		
9.	j	jebe 'shelf'	Jun	June
10.	l	//loans only//	longpela	long
11.	r	ruso 'they go'	ran	[run]
12.	m	moyu 'my mother'	mama	mother
13.	n	nandi 'he comes'	nau	now
14.	ny	nyoq 'egg', minye 'greens'	//none//	[many]
		wuny 'garden'		
15.	ng	ngɨny 'sun', gang 'old'	singsing	sing
16.	ng	mange 'limb'	pinga	finger
17.	v	veri 'enemy'	(hevi)	[very]
18.	w	wuye 'water'	wara	water
19.	y	yari 'swamp'	yu	you
20.	gh	ghatɨ 'snake'	//none//	[ghost]
21.	ch	choi 'grub'	//none//	cherry
22.	ng	njoqu 'limbum'	//none//	(mange)
		yuwanj 'fly'		
23.	nd	rand 'mountain'	Mande	Monday
		sinde 'torch'		
24.	mb	mbɨski 'lice'	mambu	bamboo
		mamb 'they hit'		
25.	q	quayi 'man'	//none//	//none//

puqo 'breadfruit'

Consonant clusters

1.	pr	praimo 'fruit bat'	pret	(pretty)
2.	br	brapɨ 'flying squirrel'	brum	broom
3.	gr	griny bad 'we play'	gras	grass
4.	tr	Tring 'proper name'	tripela	tree
5.	kr	kring yo 'yet back'	kros	(cross)
6.	ngr	ngrowngrow 'bird sp'	//none//	//none//
7.	mbr	mbret 'braid'	//none//	//none//
8.	sp	//none//	spik	speak
9.	sk	//none//	skin	skin
10.	st	//none//	ston, stua	stone
11.	skr	//none//	skru	(screw)
12.	str	//none//	stretim	straight
13.	pl	//none//	plaua	plow
14.	bl	//none//	blakpela	black
15.	sl	//none//	slip	sleep
16.	kl	//none//	klia	(clear)
17.	sm	//none//	smel	smell
18.	sn	//none//	snek	snake

Vowels

1.	a	tami 'bilum'	papa	car
2.	e	ede 'shelf'	belo	bad
3.	i	bɨdi 'part'	liklik	bid
		//none//	tekewe	(make)
4.	o	//none//	dok	(boat, smoke)
		mo 'they go'	nogat	no
5.	ɨ	kɨme 'nose'	//none//	//none//
6.	u	nu 'you(sg)'	nupela	(noose, soup)

Vowel clusters

1.	ai	mai 'heavy'	kaikai	(my, buy, bite)
2.	au	Wau, Kamasau 'proper names'	kaukau	(about)
3.	oi	moroi 'swing'	boi	(boy)
4.	Cua	puat 'kundu'	[stua]	[Stuart]

5.	Cue	kuen	'you do'	(swet)	(sweat)
6.	Cui	buid	'strong'	(swit)	(sweet)
7.	Cuai	muai	'where'	[buai]	//none//

Bibliography

Freudenberg, Allen and Marlene Freudenberg. 1974. Boiken phonemes. Workpapers in Papua New Guinea Languages 4:97-127.

Sanders, Joy and Arden G. Sanders. 1980a. Dialect survey of the Kamasau language. Papers in New Guinea Linguistics, no. 20:137-170. Pacific Linguistics A-56.

Sanders, Arden G. and Joy Sanders. 1980b. Phonology of the Kamasau language. Papers in New Guinea Linguistics, no. 20:111-135. Pacific Linguistics A-56.