

# Alphabet Design Workshops in Papua New Guinea\*

## A Community-Based Approach to Orthography Development

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*In this paper, I aim to discuss a method of orthography development that has been widely used in Papua New Guinea since the mid 1990s known as the Alphabet Design Workshop (ADW). Through the ADW method, over 100 language/dialect groups have developed orthographies in the last five years. Based on community interaction, the ADW relies on speakers' perceptions of their language rather than phonological analysis, and consequently reflects the 'sound system' in its cultural context as viewed by the speakers of the language. I describe the process of an ADW and the role of outside language specialists as facilitators, not creators of the orthography, with examples from throughout Papua New Guinea. The influence of non-linguistic factors in orthography decision making, such as neighbouring and prestige languages, and dialect standardisation, will be discussed using examples from ADWs. Finally, I mention the breadth of application of this process throughout PNG, and more recently in Thailand where the method has been tried for the first time outside of PNG. This paper is not intended to be a technical paper discussing all the linguistic issues that have arisen, but rather reflections on the ADW method of orthography development and its ability to empower language communities to own the process of orthography development.*

## 1. ORTHOGRAPHY DEVELOPMENT IN PAPUA NEW GUINEA

Papua New Guinea is the most linguistically diverse country in the world. The population of over 5 million people come from over 800 different language groups (Grimes 2000:741). One hundred and twenty years ago, none of these languages had been studied or written. However, with the arrival of the first missionaries in the late 1800s came western style education. As the missionaries worked to produce religious material in a language that could be understood by the people, they began to develop orthographies for the local languages. By 1975 approximately 230 languages, including most of the larger languages, had orthographies for use in vernacular literacy. (Healey and Taylor 1975: 311). Most of these orthographies were alphabetical phonemic orthographies which had been developed by missionary linguists through a process of phonological analysis, followed by assigning graphemes to each phoneme. (Healey and Taylor 1975: 317)

### 1.1 Education reform in PNG

In 1995, after four decades of English education throughout most of PNG, the Education Amendment Bill was passed, and Elementary Schools (Prep through Grade 2) taught in the local languages became part of the formal education system. One of the criteria

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for establishing an elementary school in an area is the existence of ‘a written orthography of the vernacular language’ (National Department of Education 1997: 2). By 1995, the number of languages with orthographies had risen to 362 languages, or 44% of the languages in Papua New Guinea (Waters 1995: 70). However, approximately 475 languages remained unwritten. How could the Elementary Education policy be fully implemented? There were still more languages without orthographies than the number of orthographies developed in the previous century. Part of the answer came in a change of approach to orthography development.

## 1.2 A change of approach towards orthography development

With an increasing interest in vernacular education and preschools in PNG in the 1980s and early 1990s, more languages were requesting help from the Summer Institute of Linguistics to develop an orthography. (James 1995: 1) Knowing that they lacked the personnel to use traditional linguistic-based methods of orthography development, in 1993 a number of SIL phonology and literacy consultants held a series of meetings to discuss possible new methods of developing practical orthographies.

The result of these meetings was the Orthography Design Workshop, later called the Alphabet Design Workshop (ADW). An ADW is a two-week workshop with the aim of producing a trial orthography to be used and tested by the language community. Rather than an expatriate linguist designing an orthography to be ‘given’ to the language community, a number of language speakers attend the ADW and work through the process of developing an orthography for their own language. This significant change in attitude and approach towards orthography development is expressed in the following extract from an SIL report:

- A. *Attitude Change: As we are invited to help a community with the design of their alphabet, let us go with two attitudes in mind: 1) our job as a facilitator, not the doer; and 2) the ability to accept the imperfections that will arise...The ownership of the orthography...is in the hands of the speakers of a language. They must make the decisions regarding how the orthography should look and how to spell the language.*
- B. *Methodology Change: Traditionally, SIL workers elicited lengthy random wordlists on which the phonological analysis and resultant orthography were based....In order to start from a more emic base, the course will use directed wordlists... The course will also include a writers’ workshop in order to test the orthography decisions right away.*(Gasaway 1993?:1-2)

These changes reversed the roles previously held in orthography development, allowing for the process to be controlled by, and belong to, the language community itself.

From 1998-2002, SIL-PNG held a sub-contract with the National Department of Education (NDOE) Elementary Teacher Education Support Project (ETESP) and Australian Agency for International Development (AusAID) to provide orthographies for use in elementary schools for 68 specified languages. This provided an opportunity for the newly developed ADW method to be further tested in varying circumstances. During the contract, SIL was involved in 47 Alphabet Design Workshops, in which 103 trial orthographies were produced with language communities throughout PNG.

## 2. WHAT IS AN ALPHABET DESIGN WORKSHOP?

An Alphabet Design Workshop (ADW) is an opportunity for members of a language community to come together and begin developing an orthography for their own language. While being community-based, an ADW also provides input from trained facilitators during the initial stages of orthography development with the aim of enabling community members to continue the process and discussions after the workshop is completed. The following goals

for an ADW are given in ‘Manual for Alphabet Design through Community Interaction’ (Easton and Wroge 2002:1)

- *Facilitating members of a language group to develop a trial alphabet for their own language.*
- *Encouraging writers in other languages (Pidgin English, Hiri Motu or English) to write stories in their own language and become active participants in the process of deciding on how to write the sounds of their language.*
- *Developing people’s awareness of their language’s letters and sounds in order to assist them in producing elementary school materials in their local language.*
- *Completing the Worksheet for Alphabet Design through Community Interaction.*
- *Producing a Trial Spelling Guide, through silkscreening wax stencils cut by hand. The Spelling Guide includes stories written in the local language.*

An ADW usually runs for seven to ten days over a two week period, with a break in the middle for participants to return to their home area. Six to twenty participants attend from the language area and are involved in writing their own language from the first day. ADWs are based on the speakers of the language, and their perceptions of their language. During the course of the workshop, participants write and edit stories, explore the patterns of their language (allophones, word breaks, phoneme distribution, etc) and produce a Trial Spelling Guide, which includes their new alphabet, spelling rules and a short dictionary. Stories written during the workshop are also included, or collected in a separate book, to be used in testing the orthography. Through these activities, the participants develop a greater understanding of the structure of their language and the issues in making decisions regarding the development of a trial orthography.

The timetable of an ADW is very flexible and adjusted according to the needs of the language group(s) present. However, there is an underlying pattern that is followed during each workshop: write/read language, identify problem areas, discuss options for problem areas, make decisions, and test decisions (see Figure 1). This pattern is followed for the ADW as a whole, as well as being repeated many times during the workshop. The cyclical nature of this process allows for the orthography to be continually assessed and altered as required. It encourages participants to view their orthography not as a static object incapable of change, but as a tool to be used and moulded by the language community in order to reach their goals.

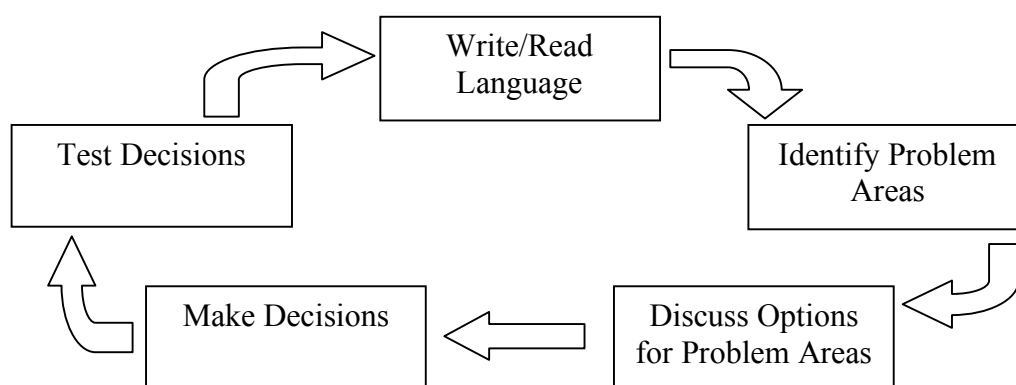


Figure 1 - cyclical process of orthography development

While figure 1 indicates a simple cyclical process, it is much more intricate and complicated. The same cyclical process occurs on a number of levels concurrently. An individual person may go through this cycle one or more times while writing a single story. The workshop participants work through this cycle a number of times as a group during the two weeks of the ADW. The language community as a whole also continues this process after

the ADW as they continue to test, use, discuss and change their orthography. For example, writing a story involves writing in the language, and problem areas are identified as the author has difficulty writing particular phones or language features. The storywriter considers options for representing the problem area and decides to try one or more of the options in the story. While writing the story two people may discuss a problem they have found, and try various solutions, resulting in many circuits of the five steps. However, within the context of the workshop, the story is only the first step, 'write language', which is then used by the group of participants to discover and discuss problem areas, some of which will be the same as those discovered by the individual. No matter what the speed of the circuit for a particular issue at a particular point in time, the same cyclical process is followed. The following table gives some examples of the cyclical process at different levels.

	<b>Activities (Individual)</b>	<b>Alphabet Design Workshop (ADW Participants)</b>	<b>Long Term (Language Community)</b>
<b>Write/read language</b>	<ul style="list-style-type: none"> <li>• Write and read stories</li> <li>• Produce wordlists</li> <li>• Play word games</li> </ul>	<ul style="list-style-type: none"> <li>• Write and read stories</li> <li>• Produce directed wordlists</li> </ul>	<ul style="list-style-type: none"> <li>• Trial Spelling Guide</li> <li>• Story books</li> <li>• Elementary school materials</li> </ul>
<b>Isolate problem areas</b>	<ul style="list-style-type: none"> <li>• Note difficulties in reading and writing, and inconsistencies in spelling</li> </ul>	<ul style="list-style-type: none"> <li>• Note difficulties in reading and writing</li> <li>• Note inconsistencies in spelling between different people</li> <li>• As a group, discuss the difficulties found</li> </ul>	<ul style="list-style-type: none"> <li>• Community feedback on materials produced during the ADW</li> <li>• Further difficulties faced by people using the orthography</li> </ul>
<b>Discuss Options for Problem Areas</b>	<ul style="list-style-type: none"> <li>• The author considers options for representing each phone, sometimes discussing them with a neighbour</li> </ul>	<ul style="list-style-type: none"> <li>• Participants, with input from facilitators, discuss options and their advantages and disadvantages</li> <li>• During the evenings/ weekend participants discuss issues with others in their villages</li> </ul>	<ul style="list-style-type: none"> <li>• A language committee, village leaders, teachers and curriculum committees with input from community members discuss problems and changes they think would be helpful</li> </ul>
<b>Make Decisions</b>	<ul style="list-style-type: none"> <li>• The author decides on one or more ways to write the phone</li> </ul>	<ul style="list-style-type: none"> <li>• Trial decisions made by participants incorporating the suggestions of community members</li> </ul>	<ul style="list-style-type: none"> <li>• Decisions are made in the way the language community considers to be most appropriate</li> </ul>
<b>Test Decisions</b>	<ul style="list-style-type: none"> <li>• The author uses the graphemes decided on in their story</li> <li>• Further writing, then reading written texts aloud</li> <li>• Decisions considered by participants leads directly to group discussions</li> </ul>	<ul style="list-style-type: none"> <li>• Write and edit more stories and wordlists</li> <li>• Participants return to their villages to receive feedback</li> <li>• Produce a Trial Spelling Guide</li> <li>• Decisions discussed by the entire language community</li> </ul>	<ul style="list-style-type: none"> <li>• Writing workshops</li> <li>• In the classroom, teaching people to read and write using the new decisions</li> <li>• Trial Spelling Guide</li> <li>• Story books</li> <li>• Any other way the community decides</li> </ul>

Table 1 - Activities in Cyclical Process

## 2.1 Write/read language

This section of the ADW process involves producing and interpreting written text. The quality of the content of the text is irrelevant to the process, however when people enjoy the text with which they are interacting, it helps them be motivated. One of the first activities in a workshop is for the participants to write a story in their own language. This may be the first time they have ever written their language. With a little encouragement, they soon discover they already know how many, if not most, of the sounds in their language can be written. They base their writing on an alphabet they already know (such as English, Tok Pisin, Hiri Motu or a local mission language) adapting it as they see appropriate for their language. Once the story is written, another language speaker reads this story aloud.

While the stories encourage people to try writing meaningful texts in their language, directed wordlists allow for more specific investigation of the distribution of each grapheme. Directed wordlists are based on the alphabet produced by the participants. For each letter (or digraph), the participants write lists of five words with the letter word initially, word medially, and word finally. A number of word games have also been found to be helpful in encouraging people to try writing their language in a non-threatening environment.

## 2.2 Identify problem areas

Problem areas are not based on the problems or questions that we have as linguists, but rather the problems the language speakers have in reading, writing or teaching their language.

While writing the initial story, the author marks anything (word, phone etc) that is difficult to write. The person who reads the story also marks anything that is difficult to read while others note any hesitations or mistakes in reading. These difficulties, which generally equate to the ways in which the patterns of the target language do not fit the patterns of the language of literacy, form the basis of the discussions of spelling options during the rest of the workshop. The participants are encouraged to repeat this process throughout the workshop for each new story, word list or other activity that involves writing or reading. Often participants will continue to discover new phonemes and areas of difficulty throughout the workshop.

Directed wordlists allow participants and facilitators to begin identify problem areas through discovering patterns in the language, in particular allophonic variation. The following are the directed wordlists for two letters of the Topura alphabet, a dialect of the Wedau language in Milne Bay province. From these two lists it became obvious to the facilitators that [s] and [t] were most likely allophones, with [s] occurring before [i]. This was one example where tasks completed enabled the facilitators to identify an area for discussion.

word initial	translation	word medial	translation	word final	translation
<b>letter: s</b>					
sisikwa	type of snake	isikai	broken/form		
sia	fish				
<b>letter: t</b>					
tanigha	ear	rautanighana	listening		
tevera	child	maiteni	with		
topa	pool	oroto	male		
tupona	short	vitumaghana	faith		

Table 2 - Allophonic Variation in Directed Wordlist

As shown in the example above, the workshop facilitators have a role in isolating problem areas. While they generally do not know the language, they can often help discover inconsistencies and ask questions about patterns they see arising. The facilitators are helped by previous linguistic research on the language, or related languages, as they look for expected phonemes, and patterns of various phonological processes. Facilitators also help the participants to understand the difficulties and why they are problematic. However, they must be careful not to introduce problem areas that are of no concern to the language speakers.

## 2.3 Discuss options for problem areas

For each of the problem areas identified, a list of options for writing the phoneme or feature (eg tone, nasalisation) is produced. Both the participants and the facilitators contribute to the list. The participants give their suggestions, while the facilitator's role is to give further suggestions and help participants consider the advantages and disadvantages of each option. To enable discussions to continue beyond the workshop, the participants need to become aware of how to assess advantages and disadvantages of the available orthographic options.

The options for a particular problem area generally fall into one of six categories. Graphemes used by:

- participants in their stories.
- neighbouring or related languages for the same or similar phone or feature.
- prestige languages for the same or similar phone.
- prestige languages that are not already being used in the target language.
- a prestige language for a similar phone or feature with an added diacritic.

Digraphs based on letters in prestige languages used for similar phones or features

One dialect of the Duwau language has a voiceless velar nasal /ŋ/. Both voiceless nasals and velar nasals do not occur elsewhere in the region. Consequently it was difficult to decide on orthographic options. The Duwau people suggested <nh>, as it consisted of two symbols which best described the sound for them. This is the option that was used and has been readily accepted.

For each option, advantages and disadvantages need to be identified and discussed. Participants are encouraged to consider the following: ease of teaching, reading, writing, typing, and transferring to English. The following tables list a summary of the options with their advantages and disadvantages for two of the problem areas for the Bilur language, in East New Britain. As during an ADW, non-technical language is used.

Problem: a second 'a' sound, (/ə/ contrasting with /a/)

Options	Advantages	Disadvantages
a	no special symbols, easy to write/type	confused with the other 'a' sound
aa	easy to type and write	longer words, confusing with long 'a'
á	not confused with other sounds	hard to type

Problem: a sound half-way between English 'v' and 'w', (/β/)

Options	Advantages	Disadvantages
v	follows Kuanua, similar to English 'v'	does not differentiate us from Kuanua
w	similar to English 'w'	harder for people who read Kuanua

Table 3 - Orthography Options

Whenever possible, workshop participants return to their villages during the middle weekend of the workshop and continue the discussions with the people in their village. This

helps the participants themselves to become clear about the issues of each option (with the advantages and disadvantages) as they explain the problem areas to others, while also enabling the discussion to include the entire language group, not just a select group who were chosen to attend the workshop.

As well as individual phones, phonological features such as tone, stress, and nasalisation, and patterns in the language such as word breaks are discussed. Other issues including the spelling of loanwords, choosing how to talk about writing in the local language and dialect differences are also discussed when necessary. Of all of these, dialect differences cause the most debate.

## 2.4 Make decisions

During an ADW, a number of tentative decisions are made by the participants. Depending on the way decisions are made within the culture of the language group, this may take a variety of forms, and varying amounts of time. It is important to include people such as village leaders and elders who are able to facilitate decision making and make tentative decisions on behalf of the language group as a whole. Otherwise the participants can be wary of making any decisions regarding their orthography. While the decisions made during the workshop are only trial decisions, some agreement has to be reached to enable the process to move forward to testing.

Decisions made are rarely objective or ‘scientific’. As the language speakers make the decisions, the orthography developed represents their sound system as they perceive it, not necessarily as it would be described in a phonological analysis of the language. Language attitudes are at the core of this process, not an added extra to make the orthography acceptable. Issues of social identity, in particular how the language group views itself in relation to other languages, in particular prestige languages, church languages, and neighbouring languages, are often the most influential in discussions and decisions made. Other factors, such as ease of learning and teaching, that reflect the goals set by the language community for developing their orthography are also influential. Consequently, it has proven to be useful to have participants list their goals for developing an orthography. Reference to these has assisted a number of groups in reaching a decision on an issue that seemed unlikely to be resolved.

### 2.4.1 Prestige languages

In PNG the most influential prestige language is English due to its status as a national language and its consequent use in schools and government. The influence is particularly strong when using the ADW method as the language of literacy effects how the target language will be written. While this may be seen as a disadvantage, it assists the process to address issues which may have otherwise been ignored. In the case of Taupota, which has the same allophonic variation of the voiceless alveolar plosive as Topura (see Table 2), the participants decided to differentiate the allophones in their writing system rather than writing phonemically by writing <si> rather than <ti>. Such preference for overdifferentiation has been my experience throughout PNG when the two allophones are separate phonemes in a prestige language of the area such as English or Tok Pisin. In this case, the closely related mission language, Wedau, writes <ti>, however it has rapidly lost prestige over the last 30 – 40 years, and a desire among the Taupota people to assert themselves as a group separate from the Wedau people and identify more closely with the English language was reflected in their decision.

### 2.4.2 Church languages

While church languages have acted as prestige languages in the past, this influence is quickly diminishing. Some language groups continue to follow the patterns set by the church languages, while others choose to deviate from them in order to claim their own identity. Table 4 gives an example from East New Britain. Kuanua is the church language and culturally prestigious. Bilur and Lungalunga are both neighbouring and closely related languages. Bilur saw creating their orthography as an opportunity to assert their difference, while Lungalunga, who see themselves as in some ways inferior to Kuanua (Lungalunga is a Kuanua word for ‘crazy/stupid’), followed the Kuanua alphabet except where they saw that it did not ‘fit’ their language.

Phone	Example	Kuanua	Bilur	Lungalunga
/ə/	/batə/ ‘rain’	<a> <bata>	<á> <batá>	<á> <batá>
/β/	/βat/ ‘stone’	<v> <vat>	<w> <wat>	<v> <vatu> /βatu/
/j, i/	/kaiə, kajə/ ‘spirit’	<i> <kaia>	<y> <kayá>	<i> <kaiá>

Table 4 - East New Britain Orthographies

### 2.4.3 Neighbouring languages

As with church languages, language groups either align themselves with a neighbouring language, or differentiate themselves through their orthography options. The Kayan language in Madang province has a syllable final glottal plosive [ʔ], that appears to be an allophone of the voiceless velar plosive /k/.

/k/ > [ʔ]/\_ \$

When discussing options for writing the glottal plosive, the language speakers would not consider <k>. In their opinion, ‘That would be Watam language!’ the neighbouring language in which [k] is used instead of [ʔ] word finally. The Kayan people decided to use <c> for [ʔ]. While [ʔ] does not have meaning in the traditional semantic sense, it carries cultural meaning and is therefore given a separate symbol by the people to represent the differentiation in meaning.

mboc	‘betelnut’
macbus	‘not yet’

On the other hand, during a multilanguage workshop in Western Province with a family of languages that had 10 or more vowels, the languages present used a system of diacritics to represent the vowels that was already being used by a related language. Their were some minor differences, but some languages chose to duplicate the existing vowel system exactly.

### 2.4.4 Educational factors

Ease of teaching and learning play a significant role for a number of language as the ADW was closely tied to the process of beginning Elementary Schools, which communities saw as instrumental in preserving their language and culture. In the Ghayavi ADW, the main issue was a voiced velar fricative. In the church language, which is a related language it had been written a number of ways, but the most prevalent was for underdifferentiation with the voiced velar plosive /g/. <gh> was being used by another neighbouring language and was preferred by most of the teachers who had already begun teaching in the Ghayavi language.



The discussion lasted a number of days. It was not until the participants were once again made aware of their goals in orthography development that they were able to come to even a trial agreement. <gh> was chosen as the underdifferentiation of two frequently used phonemes had proven to be disadvantageous to teaching and learning.

## 2.4.5 Dialects

At the start of each ADW, participants drew a map of their language area with the dialects marked. It was not unusual to find that this did not match the information from language surveys or published maps. For example, based on lexico-statistical data, Amben language in Madang was listed in a survey report as being very homogenous with dialectal variation in one village (Embor) (Hayward 1983, 18). They also collected data on reported dialect groupings however this was not used as the basis for dialect groupings. As might be expected, the participants drew a map which more closely reflected the reported dialect groupings, showing two distinct dialects with a boundary between two villages with cognate percentages of 97%.

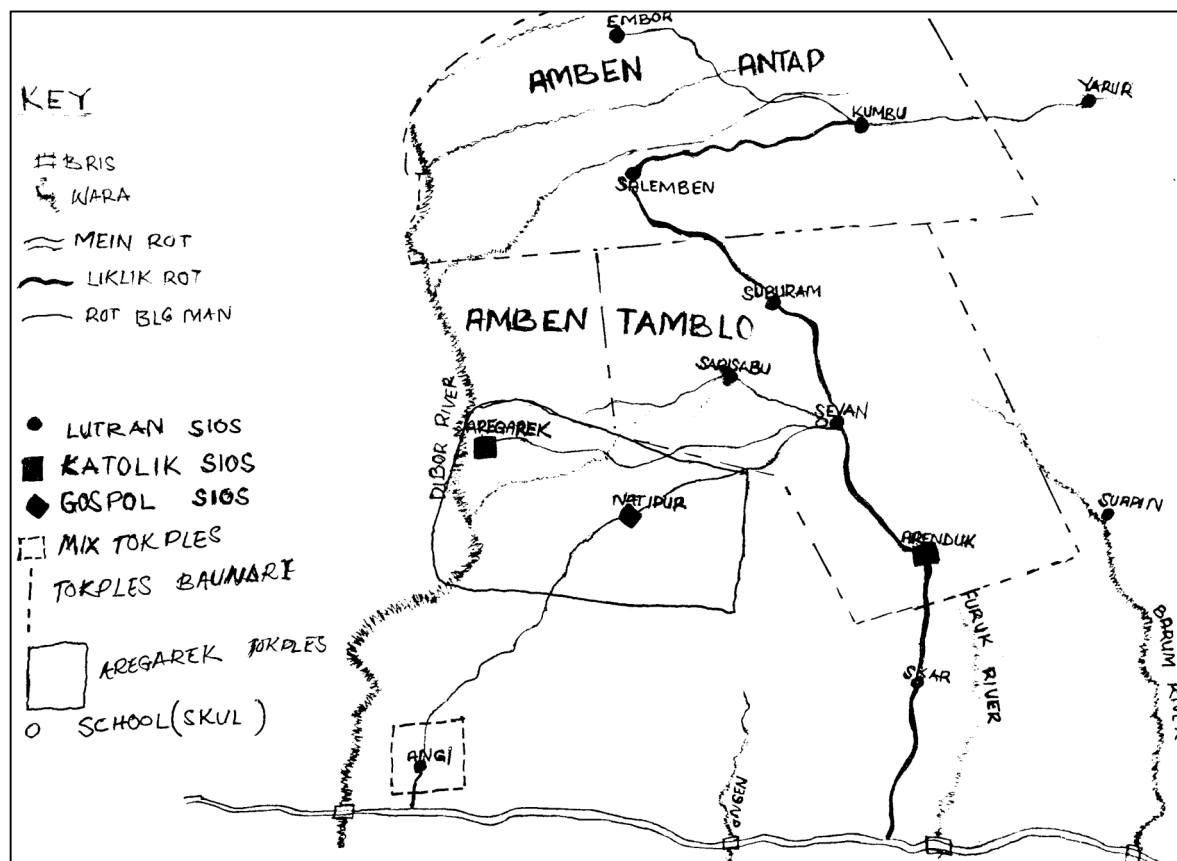


Figure 2 - Amben Dialect Map

Participants from both dialects came to the ADW. They decided that it was too difficult to work together, as they considered their speech varieties to be too different from each other. When speaking, they would use Pidgin English so that the people from the other 'dialect' could understand. The two alphabets developed differed for five of the 20 phonemes, and they produced separate Trial Spelling Guides.

It is not unusual for participants to make decisions and change them later in the workshop as they become more aware of the issues involved. While the facilitators are

instrumental in discussions, helping participants to remember all the important issues, they have no role in the actual decision-making. The alphabet belongs to the language group, and consequently decisions need to be made by the language group to enable them to take ownership of the alphabet. The ADW process also encourages discussions and decision making by the language community beyond the duration of the workshop.

## **2.5 Test decisions**

Decisions are tested through further writing and reading, as well as teaching others to read and write. If the workshop is held inside the language area, participants are also encouraged to test decisions made each day by having people in the village read their stories and wordlists during the evening. If the participants return home for the weekend, they take stories with them for people to read. Sometimes they write the same story twice using a different option for a particular problem area in each story, thereby allowing community members to test and evaluate the different options available.

Testing is intrinsically linked to the first section ‘write/read language’, as it once again begins the cycle, leading to the identifying of further problem areas and discussion. The ADW participants produce a Trial Spelling Guide and a collection of stories with the aim of using these books to educate other members of the language community about the work done during the workshop, and to have the community test the decisions that were made.

## **2.6 After the ADW**

The ongoing work of orthography development within the language community also follows this pattern of: write/read language, identify problem areas, discuss options for problem areas, make decisions, and test decisions. After the workshop, the participants have the role of informing the community of the work done during the ADW and the decisions that were reached. The Trial Spelling Guide is one of the tools used to assist in this process. People can also try writing their language following the decisions made. Other options for testing are only limited by the ideas and commitment of the language group.

After the ADW, discussions continue as further difficulties are found, and previous decisions are found to be problematic. The process of discussing the orthography and making related decisions needs to become a part of the decision making process of the community as a whole. Sometimes a language committee is formed, or the teachers and curriculum committees from the elementary schools take on the role of the language committee and are made responsible for making any future decisions.

By modelling this cyclical pattern during the Alphabet Design Workshop, the aim is that the participants leave with tools to continue assessing and improving their orthography. The ADW acts as the first opportunity for people to write their language. However without the community continuing to identify issues as they arise, discuss options, make decisions and then test the decisions through further using the orthography, it is likely that problems will go unaddressed.

## **3. DOES IT WORK?**

The flexibility of the ADW method and the variety of situations in which it can be applied can be seen by contrasting two ADWs in which I was involved.

The Ghayavi language is very strong and its speakers have an 88% literacy rate in other languages. Elementary teachers had already begun writing the language in order to produce literacy materials, and had found a number of problem areas. The phonology was

very similar to that of Wedau, a related language and also the church language in the area for 100 years. Language surveys had been conducted of the language, and research is readily available on neighbouring and related languages. The community was also very supportive of the work involved in developing an orthography, both during the workshop and beyond its duration.

Conversely, Kominimung is possibly in danger of dying out in the next two generations. Only 10.4% of its speakers are literate, and no previous attempts had been made at writing the language. The phonology was quite complex and unlike English or Tok Pisin, the languages in which the people are literate. No research was available on the language or other languages in the same family. Kominimung was part of an ADW that included three other related languages from the area and each group was able to gain some insight from the other groups. Like Ghayavi, the community was very supportive, but had difficulty putting the support into action due to the low literacy rate and number of new sound/symbol correspondences they needed to learn to transfer their literacy skills.

From these descriptions it is obvious that the process of orthography development has been much easier for the Ghayavi language group. However, despite the difficulties that faced Kominimung, like Ghayavi they were able to produce a trial orthography to be used and tested in the following months and years. They used the orthography to produce a Trial Spelling Guide which included their stories and a short dictionary compiled from their word lists. It is not perfect, and probably requires a lot more work. For groups such as Kominimung, learning the process of writing/reading language, discovering problem areas, discussing options, making decisions, and testing decisions was more important than the finished product. However during the ADW, both language groups discovered that they themselves are able to discover new things about their language and make decisions on their orthography.

A year after the Ghayavi workshop, a colleague made a brief visit to the language area and found the community had taken up the challenge to continue the work started during the ADW. Their orthography was being used in Elementary Schools, and the priest in the village where the workshop was held had begun translating the church materials into the Ghayavi language. They have also requested help with a literacy workshop to enable them to produce further literacy materials in the area. A little encouragement and instruction has allowed them to continue the work on their own, taking it in the direction that they choose.

There are many other stories from around PNG of languages using the ADW as a springboard for vernacular literacy programs. The Aroma or Kaekalo language has begun adult literacy classes as well as Elementary Schools since members of this language group attended an ADW. The following is from an AusAID project officer:

*I was in Aroma ... and I witnessed a followup to the workshop. At the request of the community Oneau Vagi ran a Literacy Workshop for a women's group but he told me he had two agendas - one to enskill the women and the other to check out the orthography with community members...In the morning 83 women and 23 men from two villages turned up for the first session and they worked through the orthography! In the afternoon the women who were very excited about the whole idea came back and Oneau with three Elementary teachers ... to help, ran a literacy Workshop. Although I only came in at the end of the workshop, the enthusiasm and excitement of the participants and commitment of Oneau and the teachers was fantastic to witness (and this was after six hours of intense work!) Many of the women had not gone beyond grade two, some were grade six school leavers. They were unable to read or write in Kaekalo. It was very empowering for the women who are parents and grandparents of children in the two Elementary Schools. This*

*workshop is being followed by weekly workshops conducted by the three Elementary teachers.*(pc, Rosemary Green)

Since 1995, over 60 ADWs have been held resulting in over 130 languages/dialects producing orthographies. A small percentage of these have been revisions to previous orthographies, or dialects of languages with existing orthographies. However in general they are language communities that did not previously have a writing system. As language groups hear about ADWs and see what nearby languages have achieved, there have been further requests for assistance.

In April this year, the first ADW outside of PNG was held for one of the Pwo Karen languages in northern Thailand. This was facilitated by Audra Phillips of SIL, and two colleagues who had been involved with ADWs in PNG: Anongporn Kongton and Scott Breden. This was the first time an ADW had been attempted with a non-Roman script. Reports from this workshop have been positive. As in PNG, it was found that the people's view of their sound system produced an orthography that was easier for them to read and write than a purely linguistic analysis would have. One facilitator relayed an experience of hearing one of the teachers attending the workshop reading in her own language. "I heard her read in the second week. Very sweet to hear fluent Karen...To hear someone read like that is indicative of something having gone right." (pc, Scott Breden)

#### **4. TRAINING PAPUA NEW GUINEANS TO RUN ADWS**

The community-based approach has not only made orthography development more accessible to the language group, but also to educators and other language practitioners without a linguistic background. As well as running ADWs, SIL has trained a number of Papua New Guineans to lead ADWs and follow-up with communities afterwards. This is a method which village people with little education find easier to grasp than those with higher education, and consequently more influence from the national language. Training educated Papua New Guineans for the task involves not only making the linguistic theories understandable, but enabling the trainees to see the value in their own language, with its different structure and forms. From this grows an understanding of the need to represent the language as it is, rather than trying to squeeze it into an English mould.

During October 2002, SIL taught a one-week session on orthography development during the Certificate of Elementary Teacher Training (CETT) run by the National Department of Education (NDOE). The 'Manual for Alphabet Design through Community Interaction' (Easton & Wroge 2002) was designed for this purpose. This manual is written in simple English without the use of linguistic terminology where it can be avoided. It aims to assist Elementary Trainers to help language groups within their district to develop orthographies to be used in the elementary schools and provide advice and assistance after the ADW as required. Successful training of this type opens up the possibility of orthography development to every language in PNG. Training people who have continuing contact with the language group also has the potential of giving languages the ongoing assistance some of them may require in continuing to develop and refine their orthographies.

#### **5. CONCLUSION**

Just as each orthography option has advantages and disadvantages that need to be considered when making orthography choices, so do methods of orthography development. The ADW method has the advantages of strong community involvement and ownership of the work, the ability to quickly produce a usable alphabet without years of language learning on

the part of a linguist, producing books that can be used immediately, and encouraging community-based problem solving. As each situation is unique in some way, each of the advantages and disadvantages will be weighed differently, leading to different conclusions about the appropriateness of this method in each context. At the same time, what may be seemingly disadvantageous, such as orthographies that may not be phonologically systematic, or reflect everything that we as outside linguists believe is beneficial in an orthography, opens up opportunities for alphabets which will be created and owned by the language communities as they themselves continue to find problems and solutions.

Despite participants having a lack of conscious knowledge of the linguistic structure of some aspects of the language, the ADW works as a process of discovery about their language, and the two week time frame assists groups to be more self-reliant and own the process, rather than seeing an alphabet as something that is given to them by a linguist. While the orthographies produced may not be linguistically accurate, the influence of non-linguistic factors has been shown many times to be necessary in producing an orthography that is acceptable to the community. The influence of English (or other national language) and other prestige languages also cannot be avoided, and through transference from the language of literacy it is particularly prevalent in the ADW method. However, this reflects the reality of the cultural situation through which the language community view their language and its sound system. This method provides the opportunity for speaker perceptions of their language to be the basis of decisions, not an ‘added extra’ to linguistic facts.

Over the last eight years, the ADW process has been used in diverse situations in various parts of PNG, and now in Thailand as well. It has proven itself to be successful in helping language communities develop trial orthographies. As each language is unique, so are the needs of each language during an ADW. A flexible approach to the ADW method has enabled it to be moulded to fit the circumstances and the languages involved. However, we must not forget that much can still be learned by listening to the stories and experiences of those developing an orthography for their own language.

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A CD containing the ADW Manual, alphabet design worksheets, sample spelling guides, outlines and lesson plans for training workshops is available from SIL-PNG. Please send requests to: [LR-Literacy@sil.org.pg](mailto:LR-Literacy@sil.org.pg)