

A Sociolinguistic Profile of the Abadi Language Group

Alison Kassell Margaret Potter

A Sociolinguistic Profile of the Abadi Language Group

Alison Kassell and Margaret Potter

SIL International $^{\mathbb{R}}$ 2011

ABSTRACT

The Summer Institute of Linguistics (SIL) conducted a sociolinguistic survey of the Lala, Abadi, and Toura languages for two weeks during June and July 2003 in the Central Province of Papua New Guinea. Observation and sociolinguistic interviews were used to investigate language vitality and speakers' attitudes toward neighbouring languages. Additionally, interviews with community leadership were used to investigate interest in language development

It was found that the Abadi language is currently vital, although indicators suggest that vitality may decrease in coming years. Abadi speakers hold a positive attitude toward their language and community leaders are interested in language development.

Contents

Abstract

1. Introduction

2. General information

- 2.1 Language name and classification
- 2.2 Language location
 - 2.2.1 Description of location
 - 2.2.2 Maps
- 2.3 Population
- 2.4 Accessibility and transport
 - 2.4.1 Airstrips
 - 2.4.2 Roads
 - 2.4.3 PMV services
 - 2.4.4 Water routes
 - 2.4.5 Trails
- 2.5 A note on the use of "Motu" and "Hiri Motu"

3. Methodology

- 3.1 Sampling on the macro level
- 3.2 Sampling on the micro level
 - 3.2.1 Interviews
 - 3.2.2 Observation
 - 3.2.3 Wordlists

4. Churches and missions

- 4.1 History of work in the area
 - 4.1.1 United Church
 - 4.1.2 Christian Revival Crusade
- 4.2 Churches' attitude toward vernacular use and development
- 4.3 Language use in churches
 - 4.3.1 As reported by church leadership
 - 4.3.2 As observed
- 4.4 Summary

5. Schools

- 5.1 History of schools in the area
- 5.2 Sites and size
- 5.3 Staff
- 5.4 Enrollment, attendance, and academic achievement
- 5.5 Attitude to the vernacular
 - 5.5.1 Elementary schools
 - 5.5.2 Pinu Community School
 - 5.5.3 Avabadina Primary School
- 5.6 Summary

6. Social sketch

- 6.1 Social cohesion
- 6.2 Leadership
- 6.3 Population movement
 - 6.3.1 Immigration
 - 6.3.2 Emigration
- 6.4 Marriage patterns
- 6.5 Contact with other languages
 - 6.5.1 Trade partners
 - 6.5.2 Interaction with visitors

7. Cultural vitality

- 7.1 Material evidence
 - 7.1.1 Evidence of traditional influences
 - 7.1.2 Evidence of outside influences
- 7.2 Social practices
 - 7.2.1 Traditional practice
 - 7.2.2 Outside practices
- 7.3 Summary

8. Lexicostatistical data

- 8.1 Characteristics of the language
 - 8.1.1 Consonants
 - 8.1.2 Vowels
 - 8.1.3 Word order
- 8.2 Reported dialect grouping
 - 8.2.1 Reported speech differences
 - 8.2.2 Relative prestige of speech varieties
- 8.3 Methodology of lexicostatistic dialect survey
- 8.4 Lexical similarity
- 8.5 Interpretation

9. Language-use description

- 9.1 Children's language use
 - 9.1.1 As reported
 - 9.1.2 As observed
- 9.2 Adults' language use
 - 9.2.1 As reported
 - 9.2.2 As observed
- 9.3 Bilingualism
- 9.4 Summary

10. Language attitudes

- 10.1 As reported
- 10.2 As inferred from behaviour

11. Conclusions

Appendix A

- A.1 Materials published in or about the language A.2 Lexicostatistical data explanation
- - A.2.1 Affixes
 - A.2.2 Non-conforming lexical similarity sets A.2.3 Possible phonetic correspondences
- A.3 Abadi wordlists
- A.4 Lala and Toura wordlists

References

1. Introduction

Between 19 June and 4 July 2003, the Summer Institute of Linguistics (SIL) conducted a language survey of the Lala, Abadi, and Toura language groups in the Central Province of Papua New Guinea. The survey team consisted of SIL personnel Namsoo Kim, Duckshin Kim, Alison Kassell, Margaret Potter, and Michael Rueck.

The purpose of the survey was to determine whether a language-development program would be viable in the Lala, Abadi, and Toura area.

The goals of the survey were:

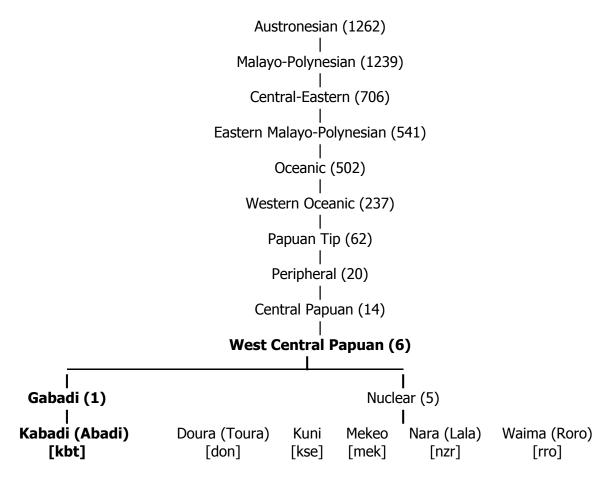
- To investigate the vitality of the Abadi language.
- To investigate whether the community is likely to use vernacular literature.
- To investigate whether the community leadership is interested in a language program.

Sociolinguistic interviews and observation were used to investigate language vitality and potential program viability. Wordlists and data obtained in sociolinguistic interviews were used to identify language and dialect boundaries.

2. GENERAL INFORMATION

2.1 Language name and classification

Abadi is an Austronesian language. The *Ethnologue* (Grimes 2000) gives the following classification for Abadi [kbt]: Austronesian, Malayo-Polynesian, Central-Eastern, Eastern Malayo-Polynesian, Oceanic, Western Oceanic, Papuan Tip, Peripheral, Central Papuan, West Central Papuan, and Gabadi. Abadi is called Kabadi [kbt] in the *Ethnologue* and Gabadi by speakers of the surrounding languages; Abadi is the term the speakers themselves use to refer to their language and will hereafter be referred to as Abadi in this report. According to the *Ethnologue*, Abadi has 49 percent lexical similarity with Toura.



2.2 Language location

2.2.1 Description of location

Abadi speakers live in the Kairuku District of the Central Province of Papua New Guinea, approximately 80 km northwest of Port Moresby. Abadi is bordered on the west by Lala, on the north by Fuyug [fuy], and on the east by Toura and Mountain Koiali [kpx]. Abadi has five main villages and numerous secondary villages, located near the Hiritano Highway and near the coast (see Table 1 and Map 1). In Pinu, it was reported that the village of Toutu is a mixture of Abadi speakers, Motu, speakers, and Australians. Educators in Pinu reported that children from Toutu

speak Motu, rather than Abadi. Therefore, Toutu has not been considered an Abadi village in this report. Aro'a was listed by Tauberschmidt and Onken (1999) as a Abadi village; however, no one in the Abadi area named Aro'a as a Abadi village when they were asked what villages belonged to their language group. The survey team suspects that Aro'a is the church land in Pinu where the Aroa Circuit Minister lives. Unfortunately, this data was not verified during the survey.

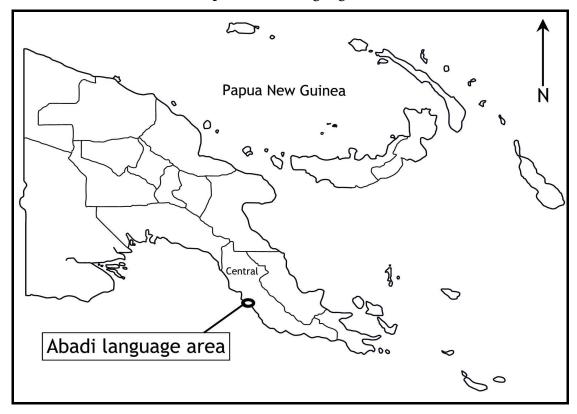
Table 1. Abadi villages as reported by Abadi residents

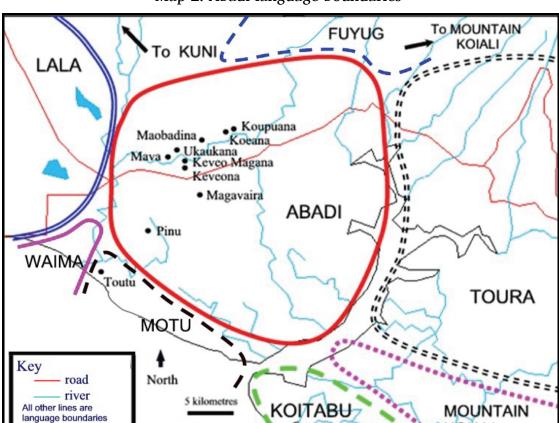
Main villages	Secondary villages related to main villages
Koupuana	Koeana
Keveona	Avabadina, ^a Maobadina, Keve'o Magana, and Camp (1, 2, 3)
Ukaukana	Mava and Idu Idu
Magavaira	
Pinu	

^a Avabadina is immediately adjacent to the village of Keveona and hosts the government services to the area, such as the Primary School and Aid Post. It appears that only the staff for these services live in Avabadina. For the purposes of this report, it has been considered to be a subsection of Keveona.

2.2.2 Maps

Map 1. Abadi language area





Gulf of Papua

Map 2. Abadi language boundaries¹

 1 These boundaries are language boundaries only and are not intended to establish land ownership boundaries.

KOIALI

2.2.2.1 Villages and facilities in the Abadi Area (see Map 3)

Kubuna Trading Doa Plantation To Port Moresby Maobadina. 2† UKAUKANA KEY 🕇 Mava 🕳 Avabadina KEVEONA 2 Abadi Village rgevairu 🛖 Main villages capitalised. Coastal Highway MAGAVAIRA † Facilities / Health Centre/ PINU 2 i 2 † Multiple facilities Plantation ■ Toutu River North Road 5 kilometres School Gulf of Papua

Map 1. Villages in the Abadi area²

Table 2. Latitude and longitude of main Abadi villages

Village name	Latitude	Longitude
Keveona	S 9 00 37.0	E 146 51 39.7
Koupuana	S 9 00 24.6	E 146 52 00.0
Magavaira	S 9 01 58.3	E 146 52 03.6
Pinu	S 9 03 03.8	E 146 50 04.2
Ukaukana	S 9 00 45.9	E 146 51 02.7

2.3 Population

Table 3 shows the population figures from both the 2000 National Population Census and as reported in the villages. A best estimate is given, based on the Census, if no further information was available or a modification of the census in conjunction with reported data.

² The School and Aid Post indicated by Keveona are in the area of Avabadina, a subsection of Keveona.

Table 3. Abadi population figures

Village vame	Secondary villages related to main village	2000 Census figures	Reported data	Best estimate
Koupuana	Koeana	450	500 ^a	500
Keveona	Maobadina, Keve'o Magana, and Camp (1, 2, 3)	443 ^b	600	500 ^c
Ukaukana	Mava and Idu Idu	739 ^d	Not visited	739
Magavaira		288	500 ^e	400 ^f
Pinu		280	780 ^g	780 ^h
TOTAL		2,342+		2,919

^a 610 total with approximately ½ living in Port Moresby.

In conclusion, the population of the Abadi area appears to be between 2,342 and 2,919. Reportedly, there are also a few Abadi speakers in Toutu (total population 82), and there are around 500 additional Abadi speakers residing in Port Moresby.

2.4 Accessibility and transport

The majority of Abadi villages (Keveona, Mava, Maobadina, Magavaira, and Pinu) are easily accessible by road and are about 2 hours driving time from Port Moresby. Ukaukana and Koupuana are located on the far side of the river. There is no bridge across to any of the villages but there is a steep incline down to the river on both sides, therefore, the river must be forded on foot. In the dry season, the river is about mid thigh at the deepest but, during the rainy season, the river swells and the only means of traversing the river is to swim.

2.4.1 Airstrips

The nearest airstrip is Jackson Airport in Port Moresby, about 90 kilometres away from the Abadi area. There used to be an airstrip nearer, called Rogers, but it closed in the 1970s.

2.4.2 Roads

The Hiritano Highway runs from Port Moresby to the Abadi area. It is paved (asphalt) for approximately the first fifty kilometres out of Port Moresby towards Abadi; however, it changes to a compacted-dirt road before it reaches the Abadi area. When the survey team was in the area, there was extensive work being carried out on the highway, with steamrollers flattening and smoothing the dirt road. There were dirt tracks leading from the highway down to Pinu, Ukaukana, and Keveona. The roads down to these villages are potholed and overgrown in parts, but are still accessible by four-wheel drive vehicles.

^b Keveona (304), Keve'o Magana (38), Camp 1, 2, 3 (no census data), Maobadina (101).

^c Middle figure between 400–600.

^d Ukaukana (461), Mava (278), and Idu Idu (no census data).

^e 400–600 reported, including those living in Port Moresby; take the middle figure of 500.

^f Middle figure between 288 and 500.

^g 780 plus 390 in Port Moresby or elsewhere.

^h Accept 780; the census statistics reported 46 houses, but residents said there were 70; this appears to be correct.

2.4.3 PMV services

Public motor vehicles (PMVs) run up to twice daily between the Abadi area and Port Moresby. The journey takes between 1½ to 2 hours and is travelled frequently by all members of the Abadi community. Five people in Magavaira own PMVs, three in Koupuana, two in Pinu, and one in Keveona. Many people in the area own private cars and travel back and forth regularly to Port Moresby (about thirty people in Pinu own a car, eight in Magavaira, and three in both Koupuana and Keveona).

2.4.4 Water routes

In the 1950s, people used to travel to Port Moresby by boat, following the coast. However, with the construction of the Hiritano Highway, this is no longer a common occurrence, though on occasion people still travel to the capital by boat, taking approximately 2 hours. Many people in the area own canoes and dinghies, some with outboard motors. In Pinu, these boats are used to fish at sea. In Koupuana and Keveona, people use dinghies, canoes, and inner tubes to transport produce from their gardens to their homes or down to the main road for market.

2.4.5 Trails

To walk from one Abadi village to another, people often follow the main roads but, in addition, there are smaller trails connecting the villages. It is a very flat area so walking is not arduous. It takes about 50 minutes to walk between Pinu and Koupuana, two of the villages that are farthest apart.

2.5 A note on the use of "Motu" and "Hiri Motu"

The use of Motu and Hiri Motu in this report may cause confusion for some readers. "Motu" is a language spoken in Central Province, in and around Port Moresby. "Hiri Motu" is a pidginization of "true" Motu and, according to the *Ethnologue*, is spoken "throughout Oro, Central, Gulf, part of Milne Bay provinces, and some in Western Province." Speakers of Hiri Motu cannot understand Motu speakers.

In this report, when referring to the church leaders and official use of Motu in the church, the authors are always referring to "true" Motu. However, when Abadi speakers refer to their own use of Motu in every-day situations, especially children's use, they are normally referring to Hiri Motu.

3. METHODOLOGY

The survey team used observation and group interviews guided by standard SIL-PNG survey questionnaires to investigate language identity, use, and attitudes, contact patterns, and cultural and social patterns. They used lexicostatistics to further investigate dialect differences and language boundaries. They also interviewed schoolteachers, pastors, and deacons to learn about the education and church in each village. Further details of methodology are described in the pertinent sections of this report.

3.1 Sampling on the macro level

The survey team visited four of the five main Abadi villages, passing over Ukaukana. In each of the villages, sociolinguistic interviews using the Language use, Contact Patterns, Culture, Church, and Education questionnaires were conducted, a wordlist was taken, and observations were made.

Since Ukaukana is very close to Keveona and Koupuana, it was thought that significant social or linguistic differences between the villages would be unlikely. People reported that Pinu is the main Abadi village, is the home of the paramount chief, and holds great influence over the entire language group. Because of these factors, the survey team opted to spend two nights in Pinu to allow ample time for interaction with village residents and leaders, as well as ensure sufficient time in the schedule for intentional language-use observation. It was reported that, while there were some Abadi speakers resident in Toutu, it was not considered to be an Abadi village and so the team did not visit Toutu.

3.2 Sampling on the micro level

3.2.1 Interviews

The survey team conducted both individual and group interviews to investigate language attitudes, language use, social contact patterns, and cultural practices. The interviews were guided by questionnaires developed by the Sociolinguistics Section of SIL-PNG. The surveyors interviewed groups consisting of people of all ages and both genders in order to discover typical opinions and practices of the people. Church leaders and school officials were interviewed individually to find out about language use in their institutions. Much of the information about traditional culture was obtained informally from small groups and individuals.

3.2.2 Observation

Observation is a natural, indirect way to learn about people's behaviour. Whereas interviews may reveal what people believe about their behaviour or the image they wish to portray of themselves, observation reveals what they actually do, although the presence of the survey team may have affected peoples' actions. Throughout the survey, the team remained alert to observe language use, social interaction, and other cultural phenomena.

3.2.3 Wordlists

The survey team elicited the 190-item standard SIL-PNG wordlist (1999 Revision) from a small group of informants in each village visited. Group elicitation was used to allow for discussion of the most appropriate word for each gloss and to avoid isolating people, which would be culturally inappropriate.

4. CHURCHES AND MISSIONS

The church is one of the main social institutions in Papua New Guinea; thus, churches' attitudes towards community projects, such as language development, significantly influence the potential success of a project.

The United Church is dominant in the Abadi area, with congregations in five villages. Other denominations in Abadi include Christian Revival Crusade (CRC) (located in three villages, Mava, Koupuana, and Pinu), Roman Catholic (located in one village, Ukaukana), Seventh-day Adventist (located in one village, Keveona), and Four Square.

In order to obtain information about the churches and missions that have worked in the Abadi area, the survey team interviewed pastors and deacons from the United Church and CRC churches. As formal interviews only took place with these two church leaders, information on other church denominations is lacking.³ However, the survey team did speak informally with a leader of the Seventh-day Adventist Church in Keveona. Additionally, the survey team was able to speak with the Aroa Circuit Minister of the United Church, as well as the assistant to the priest of St. Vincent Catholic Parish in Ukaukana.

4.1 History of work in the area

Data in the following section, regarding the history of Christian work in the area, was reported to the survey team during interviews.

4.1.1 United Church

The London Missionary Society (LMS) began work in Manu Manu in 1872, reaching the Abadi people shortly thereafter. The first LMS missionaries to the area came from the South Pacific, including Samoa and Fiji. Through a series of church mergers, the LMS congregations became the Melanesian Church, then Papua Ekalesia and, finally, the United Church in the 1960s. The leaders of the church in Magavaira reported that four LMS foreign missionaries worked among the Abadi between 1872 and 1968, when the church was "indigenized"; since that time, the United Church leadership has been entirely Papua New Guinean.

4.1.2 Christian Revival Crusade

The CRC began working in Mava in 1986; an Abadi pastor, who was then working as a teacher in Port Moresby, drove to Mava every weekend for church services. He worked as a layman with another pastor from 1991 to 1997. In 1997, the Abadi pastor moved to Pinu, where he started another CRC church. There are also CRC churches in Keveona and Koupuana.

4.2 Churches' attitude toward vernacular use and development

In general, church leaders expressed positive attitudes toward language development. When asked when people would potentially use vernacular literature, church leaders from all Abadi villages visited said that they thought vernacular

³ The survey team endeavoured to interview all church leaders in the area; unfortunately, some were unavailable for interview at the time of the survey.

literature would be used in the church. The Aroa Circuit Minister for the United Church favors the use of local languages in the churches. The Aroa Circuit includes speakers of Abadi, Lala, and Roro. The Circuit Minister and his wife, an important women's leader in the church, indicated that people need encouragement to use their own language in the churches because, in the past, it was not encouraged and people are not accustomed to using it in this setting. During one women's meeting, the minister's wife insisted that the women speak only Abadi—she disallowed English and Motu entirely from the meeting. She said that the women responded with great interest and the minister added that their interest was due to the fact that the message was clearer in Abadi than it would be in English or Motu.

Keveona's United Church pastor felt that the local language was so important that he asked a deacon to translate part of his Holy Week sermon into Abadi, so that he could present it in the people's language.

4.3 Language use in churches

4.3.1 As reported by church leadership

Church leaders reported the following information to the survey team during interviews; leaders were specifically asked what languages are used for the following activities: singing hymns, singing other songs, spontaneous prayer, sermon/homily, announcements, Scripture reading, youth services, and women's groups. A summary of their answers may be found in Table 4. Unfortunately, very little of this reported data could be verified by observation.

Table 4. Reported	l language	use in	churches
-------------------	------------	--------	----------

	Koupuana (United)	Keveona (United)	Keveona (SDA)	Magavaira (United)	Pinu (United)	Pinu (CRC)
Liturgy	English; Motu	Motu			Motu; English	
Hymns	Motu	Motu; Perobeta (Prophet's songs) ^a		Motu; Abadi	Motu	
Sponta- neous prayer	Mostly Abadi	Abadi; sometimes Motu; sometimes English; sometimes Roro; sometimes Nara	Tok Pisin	Abadi	Abadi; English (young people)	(Prayer for needs) English
Announ- cements	Abadi; Motu (if made by pastor)	Abadi; a little Motu		Abadi	Abadi	Abadi; some English

^a This is a style of worship music brought by, or at least influenced by, South Pacific missionaries.

Table 4. Reported language use in churches (continued):

	Koupuana (United)	Keveona (United)	Keveona (SDA)	Magavaira (United)	Pinu (United)	Pinu (CRC)
Youth services	Abadi	Hiri Motu; Tok Pisin; English		Abadi; English; Motu (if pastor shares)	English; Abadi	
Songs	Motu; Abadi; Samoan; Waima; Nara; Rigo	Abadi; Motu; Tok Pisin; Roro; Kuni; English; Mekeo	Tok Pisin; English; Motu; Abadi	English; Motu; Abadi	Motu; Abadi; English; Koitabu	Tok Pisin; English; few Abadi
Sermon/ homily	Motu; English; Abadi	Motu; Hiri Motu; a little English		Motu	Motu (pastor); Abadi (deacons); English	English; Abadi
Scripture reading	Motu	Motu	English	Motu; English	English (with oral translation into Abadi, even in youth services)	English
Women's groups	Mostly Abadi; Motu	Abadi; Motu		Abadi; Motu (if pastor's wife speaks)	Abadi; Motu	

4.3.2 As observed

On Sunday, 22 June 2003, the survey team attended the morning service in Keveona's United Church. The service was mostly in Abadi, except for the sermon, some hymns, the Bible reading, and a few small portions of the announcements. Two deacons prayed in Abadi prior to communion. The Motu hymnbook was used extensively in the service.

Immediately prior to the church's main meeting, the survey team heard children's Sunday school singing in a variety of languages, including at least two songs in Abadi (one had been translated from Tok Pisin to Abadi), a song in English, and a song sung in both Waima and Abadi.

The pastor preached primarily in Motu, but occasionally said a sentence in English, highlighting one of his main points. This was likely for the benefit of the survey team and for the schoolteachers from other areas who live in Keveona. During an interview the previous day, the pastor mentioned that he includes English for the sake of the non-Motu-speaking teachers. Other instances of English in the service included an official "thank you" to SIL for coming to the village and a

mixing of English, Tok Pisin, and Abadi in the announcements. The announcements were almost entirely in Abadi but, occasionally, the announcer would slip in a few words or sentences of English, quickly reverting back to Abadi. The Tok Pisin phrase *tok save* (announcements) was used, followed by an announcement in Abadi. The survey team also saw an English Bible lesson outline on a chalkboard in the front of the church.

4.4 Summary

The vernacular plays a prominent role in Abadi churches, indicating that the vernacular is valued by church leaders and vernacular literature would have a good possibility of being used.

5. SCHOOLS

5.1 History of schools in the area

Schools were introduced in the Abadi area by the London Missionary Society, reportedly during the first half of the 20th century. The government started Abadi elementary schools in 1997.

5.2 Sites and size

Table 5 gives some information about the schools in the Abadi language area.

Table 5. Sites and size

School name	Village/(year established)	Grade levels ^a
Avabadina Primary School	Keveona/1964	3,3,4,4,5,5,6,6,7,8
Keveona Elementary School	Keveona/1997	EP, E1, E2 ^b
Pinu Community School	Pinu/circa 1960	4, 5, 6
Pinu Elementary School	Pinu/1998	EP, E1, E2
Magavaira Elementary School	Magavaira/1997	EP, E1, E2
Koupuana Elementary School	Koupuana/1997	EP, E1, E2
Ukaukana Elementary School	Ukaukana/1997	Data unavailable

^a If a grade number is listed twice, it indicates that there is more than one class in that grade level; for example, Avabadina Primary School has two third-grade classes.

Educators reported that Abadi students have attended Laloki Provincial High School and Yarowari Provincial High School in Sogeri, both outside the Abadilanguage area.

5.3 Staff

School board chairmen and elementary school teachers usually come from the village where the school is located. Most community school teachers come from outside the language area where the school is located, although there are some Abadi teachers on staff at Avabadina Primary School and Pinu Community School.

5.4 Enrollment, attendance, and academic achievement

Daily attendance in the schools is significantly lower than enrollment. Often, all school-aged children are enrolled in school, but not all of them attend. The headmaster of St. John's Community School in Kuriva, which is located southeast of the Abadi-language area, said that a typical pattern is higher attendance at the beginning of the school year, diminishing dramatically as the year continues. Educators report that parents commonly blame school fees, the distance their child has to travel to school, dissatisfaction with teachers, or students' young ages as reasons why their children do not attend school.

The overall level of education in the Abadi area is relatively high. Probably due to their proximity to Port Moresby and the plethora of educated people there, Abadi speakers with Grade 10 education or lower are usually unable to get good jobs in town; nearly all of them are living in their home villages (see Table 6); however,

^b EP stands for Elementary Prep, E1 for Elementary One, and E2 for Elementary Two.

some Abadi speakers with Grade 10 education are working as teachers, carpenters, shop assistants, and medical professionals. The headmaster of Avabadina Primary School said that many families have asked their educated young people to come home; they want them to live in the "custom way." Pinu village has an unusual number of educated people, including thirty-five people who have attended university and nineteen people who have attended teachers' college. Individuals from Pinu who have been able to enter a variety of desirable professions include two doctors, two lawyers, an architect, a civil engineer, and approximately five accountants.

Table 6. Number of educated individuals present in villages

Village	Grade 10	Grade 12	University
Keveona	15		
Pinu	26	3	2
Magavaira	10	2	
Koupuana	Unknown	2	3

Table 7 lists Abadi higher-education graduates that are no longer resident in their original villages.

Table 7. Abadi higher-education graduates not resident in the area

Village	University	Teacher's College	Bible School (name/location of school)
Keveona		4 people	Elai Kolamba/Rabaul
Pinu	35 people	19 people	
Magavaira	2 people	7 people	
Koupuana	3 people	3 people	At least one person/Metago Bible College near Port Moresby

5.5 Attitude to the vernacular

5.5.1 Elementary schools

According to national policy, elementary schools begin educating children using the vernacular. In grades EP and E1, Abadi teachers reported that all education is in the vernacular. In grade E2, they begin "bridging" (transition) to English, using both English and the vernacular in the classroom; all elementary schools reported following this policy. The bridging approach is relatively new in the area, and, while it is supported by teachers, it has not always been well received by parents. Several educators in the Abadi area reported that there has been significant parent dissatisfaction because their children are not being instructed in English from the start. The headmaster in Keveona and the Teacher-In-Charge in Magavaira reported that, although parents were previously upset about vernacular education, most of them have changed their mind. Awareness meetings have played an instrumental role in effecting this change.

All elementary schools reported that children use the vernacular on the playground. Three elementary schools reported that, while children mostly speak Abadi on the playground, they also speak some Tok Pisin.

5.5.2 Pinu Community School

Information about Pinu Community School was provided by the headmaster.

Teachers primarily use English to instruct their students, sometimes giving explanations in Abadi, Tok Pisin, or Motu. As the students progress through the grades, an attempt is made to maximize use of English. Ideally, by grade 6 the class should be entirely in English, although the teacher did mention that, sometimes, Abadi, Tok Pisin, and Motu are also used.

One hour per week, there is a Community Activities class, which is sometimes taught by community members or by the teacher. Both English and Abadi are used during Community Activities.

According to school policy, students are allowed to speak Abadi up to Grade 5. Grade 6 students are prohibited from speaking the vernacular. Reportedly, they frequently speak Abadi by accident and are required to write out what they said in English ten to twenty or more times.

One teacher married an Abadi woman twenty years ago and speaks her language. Another teacher has been teaching at the school for three years and it is reported that he is also learning the language.

It is reported that Abadi speakers are "quite happy with their language" and that surrounding language groups do not have negative attitudes toward Abadi.

5.5.3 Avabadina Primary School

Information for Avabadina Primary School was provided by the headmaster.

Abadi, English, and Tok Pisin are all used in the classrooms in Avabadina Primary School. The use of some Abadi is required in the third grade; one of Grade 3 teachers is new and is still learning the language. Reportedly, one of the Grade 4 teachers is also learning to speak the language. There is no traditional language component in the curriculum; the headmaster said that such a component would be desirable because it is emphasized by the Department of Education but the problem is that the school does not have many Abadi teachers and there is not room in the curriculum.

Children are allowed to speak Abadi in class until Grade 5; after that, it is discouraged. Although English is encouraged, children are not punished for speaking the vernacular.

According to the headmaster, parents are still getting used to the idea that the vernacular is used alongside English in the schools; this change is fairly new, so they don't see the benefits yet. Parents would prefer that their children were only instructed in English in school.

5.6 Summary

Use of the vernacular in the classroom is a well-established practice in elementary grades EP, E1, and E2. There is an emphasis on English in the higher grades, recognizing students' need to master English, if they are to continue on to higher education. Several educators mentioned that parents were dissatisfied with schools, particularly because they were not in favour of their children being educated in Abadi in the early grades.

Many Abadi individuals have a high level of education; many well-educated people are residing in their home villages.

6. SOCIAL SKETCH

6.1 Social cohesion

In general, the Abadi group appears to be moving to a more individualistic, rather than community-minded society. Several generations ago, people would share the proceeds of hunting and gardening but now, people work their own gardens and divide the produce among their family. While the family unit is still fairly cohesive, with people living in extended family homes, it would appear that cooperation with people outside their own family line is limited. In Pinu, work was being carried out on a new platform⁴, with several clans working together. However, no examples could be provided of different villages working together.

Mention should be made of the tendency reported, and noticed, of educated people moving back to the village, rather than remaining in Port Moresby. There was a general feeling expressed that life in the village is better. Young people are encouraged to marry within their own village, so they keep growing in numbers, rather than diminishing.

One might conclude that, while family and village ties remain strong and people retain a sense of identity as Abadi, links between the various villages, other than through intermarriage, are tenuous.

6.2 Leadership

In the Abadi-language area, each person belongs to a clan and each clan in each village has a chief. Generally, there is an overall chief in each village, with one paramount chief for the entire Abadi area who lives in Pinu. When a chief dies, his eldest son becomes the new chief.

There was evidence that the traditional leaders retain a certain amount of influence within the Abadi area. Each chief has a platform made with bamboo flooring, 3–4 feet off the ground, with a corrugated iron or sago-palm roof. These platforms are used as meeting places where the chiefs and those they invite will sit and discuss issues. They also seem to function as general meeting places. The survey team was invited to use the platforms for the group interviews during their visit.

It would appear that, while the social structure of clans and chiefs remain, there is less authority associated with these positions than there was in the past. In Keveona and Koupuana, it was reported that village disputes were settled by the village elders and the chief, who will organize a feast in order to bring people together and discuss the problem. However, in Magavaira and Pinu it was reported that the Council or Committee would usually resolve the issue.⁵

In Magavaira, it was reported that there was no overall chief. In Pinu, home of the paramount chief, the survey team resided with the man who was traditionally the chief's servant. This man reported that this role involved organizing feasts, if the chief desired one. However, he reported that the chief rarely commands anyone to

⁴ See section 6.2 for explanation of platform.

⁵ Council or Committee usually refers to one person who represents the community on a local government level.

do anything these days. If he were to ask people to do something, they would have to do it. This was confirmed by the Aroa Circuit Minister in Pinu who said that, if the chief were to support a language-development project, the people would be obliged to help. However, the paramount chief works in Port Moresby, so is absent from the village a great amount of time; he was not present while the survey team was in the Abadi area.

In conclusion, while the traditional system of leadership still exists and is recognized in the Abadi area, the traditional elders exert less overt influence now than was the case in previous generations.

6.3 Population movement

6.3.1 Immigration

Approximately 9 percent of the adult population in the Abadi villages visited were reported to be immigrants from other areas.⁶

Figure 1 shows male immigration patterns, grouped by province, from the reported data collected in Keveona, Koupuana, Magavaira, and Pinu. The sections of the pie chart represent the number of men from a particular province as a proportion of the total reported to have moved to the four previously-mentioned villages.

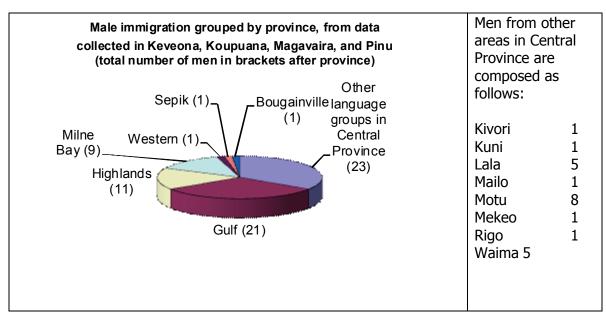


Figure 1. Male immigration patterns.

All the men who had moved into the Abadi area were reported to have done so for the purpose of marriage. It was reported that, in general, men who marry in learn to speak some Abadi, but few speak it fluently and most use Tok Pisin or Motu for their daily interactions within the village. However, it was reported that the vast majority of children of these mixed marriages speak Abadi, as well as Tok Pisin,

23

⁶ Based on the reported number of immigrants as a percentage of the best estimate adult population for Keveona, Koupuana, Magavaira, and Pinu, calculated as 60 percent of the total population for these villages (2000 Census states 40 percent of the population as under 15 years of age).

Motu, or their father's language. There were many cases where the children were reported to only speak Abadi and very few cases where they were reported to speak no Abadi at all.

Figure 2 shows female immigration patterns, grouped by province, from the reported data collected in Keveona, Koupuana, Magavaira, and Pinu. The sections of the pie chart represent the number of women from a particular province, as a proportion of the total number of women reported to have moved to the four previously-mentioned villages.

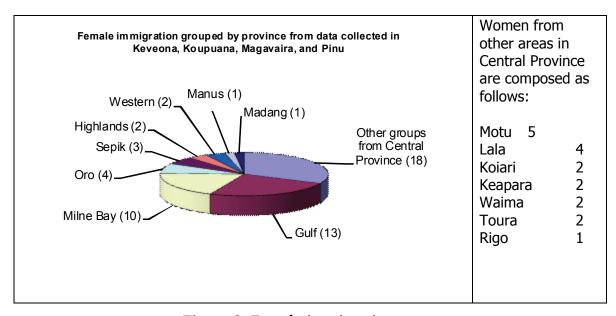


Figure 2. Female immigration patterns.

All the women who had moved into the Abadi area were reported to have done so for the purpose of marriage. In general, it was reported that women who marry in learn to speak some Abadi, but few speak it fluently and most use Tok Pisin or Motu⁷ for their daily interactions within the village. There were some women from Toura, Lala, and Waima (neighbouring and related languages) who were reported to speak Abadi fluently. There were also some women from the Highlands who have lived in the area for over twenty years who were reported to speak fluent Abadi. In Keveona, Koupuana, and Pinu, children of mixed marriages, where the mother was from another language group, were virtually all reported to speak Abadi, plus Tok Pisin and/or Motu and, in some cases, their mother's language too. However, in Magavaira, it was reported that the children of mixed marriages primarily spoke Tok Pisin; some were reported to speak only Tok Pisin.

6.3.2 Emigration

6.3.2.1 Urbanization

The main emigration trend in the Abadi area is for men to move to Port Moresby to find work, taking their families with them. Between ten and fifty men and their families from each Abadi village were reported to have moved to Port Moresby.

⁷ Both references to Motu in this paragraph could refer to either Motu or Hiri Motu; this was not confirmed by researchers.

Many of them return to the villages on weekends and holiday times to visit their relatives; these men use Abadi to communicate when they come back. However, while residents in Koupuana and Keveona reported that the children of these men speak both Abadi and Tok Pisin, respondents in Pinu and Magavaira reported that, in general, their children spoke only Tok Pisin.

There is no Abadi settlement or area in Port Moresby; rather, the Abadi speakers live in separate homes in various parts of the capital.

A few men from the Abadi area (approximately twenty from the four villages visited) were reported to have emigrated to Kainantu, Goroka (Eastern Highlands), Mount Hagen (Western Highlands), Alotau (Milne Bay), Wewak (East Sepik), and Lae (Morobe); they only return for holidays. The adults were reported to speak Abadi on their return, but their children were reported to speak Tok Pisin.

6.3.2.2 Emigration due to marriage

There is a limited amount of intermarriage with neighbouring language groups in Central Province; this contributes to a small amount of emigration of women. Approximately five women from each Abadi village we visited have emigrated to the surrounding language groups in Lala, Waima, Motu, Toura, and Mekeo. When these people return to visit their relatives in the Abadi area (which varies from occasional to frequent visits), they communicate in Abadi. The majority of the children of these emigrants are reported to speak the language of the area emigrated to, or Tok Pisin and/or Motu. Only a few of the children of emigrants to Lala, Waima, and Motu areas were reported to speak Abadi well.

Several women (approximately fifteen in total from the four villages visited) were said to have married and moved to Madang, Morobe, and Western Province. While the women were said to still use Abadi on returning occasionally to visit the village, their children were reported to use Abadi and Tok Pisin (for those in Morobe) or only Tok Pisin.

6.3.2.3 Summary

The majority of emigrants from the Abadi area are men who move to work in Port Moresby; most of them make regular visits to their home communities. About half of the children of these emigrants are able and willing to speak Abadi on returning to the village, the others use Tok Pisin.

Men and women who leave the area to live in areas other than Port Moresby, both in Central Province and in other provinces, return less frequently to the area than those who move to the capital. While these emigrants continue to use the Abadi language when they return, the vast majority of children of these emigrants speak Tok Pisin, rather than Abadi.

6.4 Marriage patterns

The vast majority of Abadi speakers marry within the Abadi area. In general, Abadi women move to live in the man's village. However, a small number of men in each village we visited were found to have moved to their wife's village, including men from outside the Abadi area. See the preceding section on immigration/emigration for details on population movement due to marriage and language use in mixed marriages.

6.5 Contact with other languages

6.5.1 Trade partners

Table 8. Reported trade partners, patterns, and language use

Traditional trade partners	What they trade Abadi/others	Language use
Motuans	Bananas, yams, and arm shells /clay pots and fish	No longer trading
Kunis	Salt/string bags, bird of paradise feathers	No longer trading
Kerema	Arm shells/sago	No longer trading
Lala (with Koupuana village)	Bananas, yam, wallabies	Each use own language
Koitabu (with Pinu and Koupuana)	Bananas and other food, shells	Motu,ª Abadi

^a Probably Hiri Motu.

6.5.2 Interaction with visitors

Table 9. Reported contact with outsiders who visit the Abadi area

	Personnel	Purpose	Knowledge of Abadi?	Language used in communication
	Pastors	Circuit meetings	No	Motu ^a
Church	Executives	Meetings	Yes	b
	Regional officers Meetings		No	Motu/Tok Pisin
Government	Parliamentary candidates	Election Campaigning	No, unless Toura or Lala	Tok Pisin (if Highlands), Motu and English (if Central Province), Abadi (if Toura or Lala)
	Department of Agriculture officers	Teach workshops	No	English, Tok Pisin, Motu
Students	Australian and Culture		Learned a little	English

^a CRC Pastors were reported to use English, rather than Motu.

Abadi residents did not report frequent visits from outsiders; those who do visit communicate in Tok Pisin, Motu,⁸ or English.

-

b No data available

^c Students from the Southern Cross University, Australia, stayed for several weeks.

⁸ Could be either Motu or Hiri Motu.

7. CULTURAL VITALITY

7.1 Material evidence

The majority of information on material evidence was gathered through observations during the time the survey team was in the Abadi area. Some direct questions were asked of a group, for example, how many houses had electricity and who made the traditional objects seen in the village.

7.1.1 Evidence of traditional influences

The Abadi live in large family homes constructed six to ten feet off the ground, on large wooden posts with detachable wooden ladders. Most homes have a veranda outside the front of the house, with roofs made from sago-palm leaves and no walls. Most homes have several rooms leading off the veranda. Many homes also have a bamboo platform underneath the house, extending across part or the entire underside of the house, providing a place for people to sit in the shade of the house. Cooking may be done outside in a separate cooking area (small shelter which may be built from traditional materials; sago-palm roofing, wooden sides, or no sides at all) or in a small area or room to the side of the veranda.

In addition to the platforms underneath the houses, all the Abadi villages visited



Traditional Chief's Platform

had freestanding platforms, which act as meeting places. Each chief has his own platform. These platforms are made with bamboo flooring, 3 to 4 feet off the ground, usually with a sago-palm roof. The sago palm may be folded, sown, or free lying.

A few traditional items that were observed in Abadi villages include headdresses, arm shells, brooms, a stick for shelling coconuts, and string bags.

It was reported that some of the young girls were learning to make string bags. The old men know how to make a type of traditional drum, called a *kundu* in Tok Pisin. It was reported that a thirty year-old man in Koeana had made a kundu drum last year; a lizard skin was shown (which was being dried to make the top of a drum). However, in Pinu and Keveona, it was reported that the children do not know how to make kundu drums. It was reported that some children who are interested in *singsings* (traditional dances and songs) know how to make traditional headdresses.

7.1.2 Evidence of outside influences

The majority of homes in the Abadi area are built from manufactured materials (see accompanying photo). The vast majority of houses have corrugated-iron roofing. Many houses have walls of man-made materials, though some had walls made from bush materials, such as bamboo. Many windows have flywire over them, and some have glass-louvre windows. It is common for the sleeping area of the



house to be made from manufactured materials, while the cooking area may be made from materials that are more traditional.

For cooking, many Abadi people use a metal grill over the fire, which may be raised off the ground. Several houses in Pinu had metal steps, rather than a detachable wooden ladder. Many of the chief's platforms have corrugated-iron roofs.

The churches and pastors' homes are made from permanent materials. The churches may have masonite walls or corrugated-iron walls with corrugated-iron roofing. The church in Magavaira is totally enclosed and built up on posts, like the homes. The church in Keveona, however, has corrugated-iron walls that extend half way up the sides, so that there was an open section between the top of the wall and the roof.

Other outside goods observed in the Abadi area include: nylon fishing nets, televisions, generators, solar panels, gas pressure lamps, water tanks, plastic containers, bicycles, metal pots, kettles, plates, cups and cutlery, linoleum, and football boots.

Many of the homes in the Abadi area had electricity from generators or solar panels. In Koupuana, fourteen homes (nearly half) have electricity provided by four generators.

In Magavaira, the people have a solar-powered generator to draw water from a well provided by AusAID.⁹

People in the Abadi area wear western-style clothing (t-shirts, shirts, trousers, shorts, skirts, dresses, caps, flip-flops, and shoes). All the children wear clothes, except the very youngest. The elementary school in Magavaira has a uniform of white shirt and brown skirt or shorts. It was observed that many of the children adhered to this dress code.

7.2 Social practices

Information on social practices was gathered with the use of interviews guided by the Culture and Society questionnaire developed by the Sociolinguistics Section of SIL-PNG. In most cases, the majority of respondents for the 'Culture and Society' questionnaire were men, or at least the men dominated when giving answers. The team sought to gain information from women on a more informal basis, while walking around the villages, or sitting to eat.

7.2.1 Traditional practice

7.2.1.1 Land

Land in the Abadi area is ultimately owned by the chief of each clan. Within each clan, this land is shared among the men who pass the land on from father to eldest son; the son will then share the land with his brothers. If a man does not have any sons, he may pass his land on to a daughter.

7.2.1.2 Rites of passage

When a child is born, it is immediately named. Often a child will be named after a relative, with the firstborn being named after a relative on the father's side of the family, and the secondborn named after a relative on the mother's. A child may be

⁹ Australian Agency for International Development, which sponsors various projects in PNG.

presented to the community through baptism at the church (as reported in Pinu), when they will also receive a Christian name. When they are older, the child may also take an English name. In Keveona, it was reported that, when a child is one year old, a feast may be held. However, in Koupuana, it was reported that there is no official ceremony for presenting a child to the community.

The mother of a newborn baby is required to eat only bananas and coconut and drink only water for two weeks after the birth.

Rites of passage, for boys to become men and girls to become women, are no longer held. Young men and women used to fast for four to six weeks and would then have their noses pierced and be initiated. However, the custom died out over forty years ago. Only those presently over sixty years of age old were reported to have taken part in such ceremonies when they were young.¹⁰

7.2.1.3 Marriage

Traditionally, to arrange a marriage, a man had to be over 25 years of age, and the girl over 20. If a man wanted to marry, he would go to his parents, who would then go to the girl's parents and, if they agreed, a bride price would be settled on before the marriage could take place.

Nowadays, young people get married a lot younger; between 15 and 20 years of age for a boy, and 13 and 18 years of age for a girl. A man is not always required to pay a bride price but, in most cases, the parents of the girl will request it. Current bride prices range between 4,000 and 14,000 kina, but are generally around 4,000 to 5,000 kina. A man will go to his family and ask them to help him collect enough money for the bride price; part may be required initially and, then, more after the first child is born. Alternatively, no bride price may be paid until the woman has had several children. In addition to money, other gifts included in the bride price may be arm-shell bracelets, pigs, flour, and rice. The bride price will tend to be higher if the girl is more respectful and will work well for her in-laws, or if the man is known to have a good income.¹¹ Bride price is rarely affected by the girl's level of education.

7.2.1.4 Feasts and singsings (traditional dancing)

Feasts are held in the Abadi area for funerals, initiation of new chiefs, harvest times, and pig exchanges. The only feast that was reported as being held in all four villages visited was the funeral, or headstone feast. This is held two to three months after a death; at that time, a headstone will be placed on the grave. The family of the deceased will cook a large meal of pigs and cassowary and there may be a *singsing*.

All the villages visited reported having had a *singsing* within the last year, with the exception of Magavaira, where the last *singsing* was said to occur 2 or 3 years ago. The *singsings* that did take place were performed in the Abadi, or old Abadi language. In Magavaira, it was reported that the *singsings* are dying out, and are mostly dancing, rather than accompanied by any words. In Pinu, it was reported that it is mainly the children who perform the *singsings* on special occasions. The purpose of *singsings* was reportedly to bring people together and to entertain.

¹⁰ An elderly man and woman in Koupuana showed the survey team the hole pierced through their noses.

¹¹ In Koupuana, the highest bride price reported was for a PMV owner who was required to pay 8,000 kina.

7.2.2 Outside practices

The many examples of Christian and English names (like Rose and Jack) are evidence of outside practises.

The Abadi people participate in a cash economy; cash is mainly acquired through the sale of garden produce and fish at local markets and in Port Moresby. The cash is used to purchase western goods in the capital and food items from local trade stores. One couple in Pinu said that, when they went into Port Moresby for market, only after they had accumulated 200 kina, would they spend any extra on a meal in a restaurant.

The Abadi people play rugby and volleyball.

In Pinu, one house, that had a TV, charged entrance fees and showed films and TV programs.

7.3 Summary

The people in the Abadi area are heavily exposed to outside influence, due to their proximity and ease of access to Port Moresby and relatively high disposable income. This has led to an influx of western goods into the village. People are less likely to make traditional items and more likely to buy modern items from town. Some traditions, such as initiation rites and traditional (arranged) marriages, are no longer practiced; others, such as *singsings*, are practiced infrequently. However, the Abadi still maintain a sense of community and belonging and are maintaining traditions, such as bride price.

8. LEXICOSTATISTICAL DATA

8.1 Characteristics of the language

The following phones were recorded in the wordlist elicitations:

8.1.1 Consonants

Table 10. Consonantal phones in the Abadi language

Pulmonic	Bilabial	Labio- dental	Alveolar	Palatal	Velar	Glottal
Plosive	p p ^h b		t d		k k ^h g	?
Nasal	m		n			
Trill						
Tap/flap			ſ			
Fricative	β	V	S			
Approximant				j		
Lat. approx.						

It appears that [β] and [v] are in free variation (c.f. gloss number 9). There also seems to be free variation between aspirated and unaspirated voiceless stops, [k] \sim [k^h] (c.f. gloss number 64, 65) and [p] \sim [p^h] (c.f. gloss 107, 123, 149).

8.1.2 Vowels

Table 11. Vocalic phones in Abadi

	Front	Central	Back
Close	i		u
Close-mid	e	Ә	0
Open-mid	3	Ð	
Open		α	

Note that [a] is pronounced towards the center, rather than the back of the mouth.

There were very few examples elicited of $[\epsilon]$, and it would appear to be in free variation with $[\epsilon]$. The schwa $[\epsilon]$ appears to occur in place of $[\alpha]$ between two consonants, as part of a diphthong or word finally.

8.1.3 Word order

From the twenty sentences elicited in the wordlists, it would appear that the word order of Abadi is SOV (subject, object, verb).

e.g. from Koupuana

kaune burena vegane man yam eat 'The man eats the yam.'

8.2 Reported dialect grouping

8.2.1 Reported speech differences

According to the self-reporting of the villages visited, the Abadi-speaking villages are the following: Koupuana (includes Koeana), Keveona (includes Maobadina), Ukaukana (includes Mava), Magavaira, and Pinu. It was also reported that Abadi was spoken in Toutu; however, the Pinu villagers reported the Toutu speakers mixed Abadi with Motu, so they didn't consider them pure Abadi speakers.

The respondents in Koupuana and Keveona grouped themselves as speaking the same as each other; those in Keveona also included Ukaukana in their group. These same respondents considered the speech of Magavaira to be slightly different, saying the people there spoke slowly, while both villages agreed that those in Pinu spoke quickly. In addition, the Koupuana residents said there were some lexical differences between their speech and that of Pinu, e.g. 'big' is *kome'a*¹² (Koupuana) and *babaga* (Pinu). However, when eliciting the wordlists, it was stated that, in Magavaira, the word *kome'a* means huge, whereas the word *babaga* means 'big'.

Speakers in Magavaira reported the same dialect grouping as in the previous paragraph, perceiving the speech of Koupuana and Keveona (which they grouped together) to be slightly different from their own, mainly in terms of a few lexical items. An example given was the word 'deep,' which is *na'ebo* in Magavaira but *orodi* in Koupuana and Keveona. The speakers in Magavaira also agreed that the speech in Pinu is faster.

Residents in Pinu said that they had several lexical items different from those in Koupuana, Keveona, and Magavaira, who they reported as speaking slightly different from themselves.

None of the speakers had any different names for the various reported varieties of their language. All adults reported that they were able to understand the other varieties without any hindrance. In Koupuana, it was reported that even children have no problem understanding the speech of those from Magavaira and Pinu. However, in Magavaira, it was stated that sometimes little children find the other varieties hard to understand. In Pinu, it was reported that, while most children can understand the other varieties without any problem, the children often speak Tok Pisin with children from other Abadi villages.

8.2.2 Relative prestige of speech varieties

There seemed to be no general consensus as to the presence of one prestigious village or variety of speech within the Abadi-speaking area. Those in Pinu claimed that, since they were the original Abadi village and since Pinu is the current home of the paramount chief, they were the most important. The respondents in Pinu said that, after themselves, Ukaukana was next in importance, since people had migrated

_

¹² The apostrophe is an accepted convention in the area for representing [?].

from Pinu to Ukaukana. The residents of Koupuana agreed that, after themselves, Pinu was relatively important, since it had been the location of the initial mission station in the area. The residents of Magavaira and Keveona had a long discussion about this issue, without reaching any conclusion. It was reported in Keveona, however, that the speech of the villages along the river was the standard for the Abadi language (i.e. Koupuana, Keveona, Ukaukana, and associated secondary villages). The residents of Koupuana insisted that their variety was indeed the most prestigious, that they spoke 'correctly'.

8.3 Methodology of lexicostatistic dialect survey

A standard SIL-PNG wordlist (1999 Revision)¹³ was elicited in all four of the Abadi villages visited (Koupuana, Keveona, Magavaira, and Pinu). The wordlist contains 170 words and 20 phrases. These wordlists were compared with each other, with four Lala wordlists, and two Toura wordlists elicited during surveys in these two neighbouring languages. These three surveys were all completed within a few weeks of each other by the same survey team. Wordlists for all three languages were elicited by the same person, with the exception of the Koupuana wordlist, which was elicited by another member of the survey team.

The analysis of wordlists was conducted using the "inspection" method described in *Guidelines For Conducting A Lexicostatistic Survey In Papua New Guinea* by Sanders (1977:33–34). Words were considered to be lexically similar if they were phonetically similar, according to the criteria described in *Survey on a Shoestring* (Blair 1990: 31–33). Namely, half of the phones of a word must be identical or very similar, and half of the remaining phones must be similar. Of the 170 words elicited, 35 were eliminated from the data comparison due to confusion over the semantics of the word elicited. For example, the word elicited for 'tobacco' in Koupuana was a general word for something that is smoked (gloss 140), whereas the word elicited in the other Abadi villages was the word for tobacco leaf. The entry for 'green' (gloss 150) was eliminated because there is no one word for this color in the Abadi, Lala, or Toura language. The total number of words compared was 134.

When comparing the wordlists, 14 words were grouped together as lexically similar, although they did not strictly follow the similarity criteria set forth by Blair. A list and explanation of these cases can be found in Appendix A, along with a list of possible affixes that were considered to be special markers; therefore, separated from the root of the word before the similarity criteria was applied.

8.4 Lexical similarity

Speech varieties that enjoy more than 80 percent lexical similarity are conventionally considered dialects of the same language (Wurm and McElhanon 1975:152). Speech varieties that are less than 60 percent similar have normally been found to be unintelligible (Grimes 1988:47).

The percentage of words considered to be lexically similar between the Abadi villages (Koupuana, Keveona, Magavaira and Pinu) was 100 percent.

-

¹³ Both the English/Tok Pisin version and the English/Hiri Motu version were available for reference during wordlist elicitation.

Table 12 is a percentage matrix of similar forms from the total number of compared words between the Abadi, Lala, and Toura languages, counted by WordSurv. If Since all the Abadi, Toura, and Lala wordlists gave 100 percent lexical similarity for all the wordlists elicited within each language area, overall percentages have been compared (rather than showing comparisons between individual villages). Table 13 is a variance matrix which shows percentages of error for Table 12, based on the reliability code, If the total number of forms compared, and the similarity percentages (Wimbish 1989:58–60.).

Table 12. Lexical similarity matrix

Abadi		
53	Toura	
47	57	Lala

Table 13. Variance matrix

Abadi		
7.1	Toura	
7.1	7.1	Lala

8.5 Interpretation

In summary, it can be concluded that there are no significant dialect divisions within the Abadi language. The Abadi language is, however, a distinct language from Toura and Lala, though it may be considered slightly more similar to Toura (53 percent lexical similarity) than to Lala (47 percent lexical similarity). The Kims (fluent Waima speakers) noted that Abadi was structurally similar to Waima, Lala, and Toura.

-

 $^{^{\}rm 14}$ A computer program designed to analyze word lists.

¹⁵ The reliability code is entered in the catalogue for each wordlist in WordSurv, indicating the reliability of the data on a scale of A to E. The code given to the Abadi, Lala, and Toura wordlists is C, meaning the elicitation situation was the average survey situation, with good bilingual informants and adequate opportunities to double check.

9. LANGUAGE-USE DESCRIPTION

9.1 Children's language use

9.1.1 As reported

It was reported that, in all four Abadi villages we visited, the children use Abadi when speaking to their grandparents, parents, siblings, and playmates.

In addition to the use of Abadi, it was reported that, in all the villages we visited, the children sometimes use Tok Pisin and English with their siblings. It was also reported, in Magavaira, that the children occasionally speak Tok Pisin to their grandparents. In Koupuana, it was reported that a few children speak Tok Pisin to their parents.

Some use of Tok Pisin was also reported for children's play in all of the villages visited. The children in Magavaira said that they mainly use Tok Pisin when playing, but also reported using some Hiri Motu. In Pinu, it was stated that boys mainly speak particularly Tok Pisin while they play. Children in Keveona were reported to speak a lot in Tok Pisin and English while they play.

Children in the Abadi area were said to sing in Abadi, Motu, English, and Tok Pisin.

In all the villages we visited, it was stated that Abadi was the first language that children learn. In Koupuana, Pinu, and Magavaira it was generally agreed that the children spoke good Abadi by the time they went to school. In Keveona, it was thought, however, that the children did not speak good Abadi by the time they began school.¹⁶

With regard to mixing languages, the children in Magavaira were reported to sometimes mix some Tok Pisin with their Abadi. Some mixing of Tok Pisin and Hiri Motu with Abadi was also reported in Keveona.

9.1.2 As observed

The survey team observed that children were speaking Abadi most of the time with their parents, grandparents, and peers. In Koupuana, some boys were speaking Abadi while playing rugby. During recess from the school in Magavaira, the elementary students were speaking Abadi to each other. The children at a Sunday school singing practice in Pinu were speaking in Abadi to each other, as were some children playing in the village.

While use of Tok Pisin was observed in all the Abadi villages visited, its use among children seemed strongest in Magavaira. In this village, the children responded very enthusiastically when asked if they spoke Tok Pisin, and seemed more conversant in it than the children in any other villages visited in the Abadi area. However, even these children were also heard speaking Abadi to each other as they played.

¹⁶ There was no other language that they were reported to speak better though, so it may well have been that the parents were simply comparing their own linguistic abilities to that of a child.

The use of English was more widespread among children in Pinu; in this village, girls were observed skipping rope to an English chant, and other children were heard singing, "London Bridge is falling down." A little boy was heard yelling at his father in English, who was yelling back in English too. Children in Pinu were heard scolding each other and speaking to the pastor in English. The Sunday school teacher conducting the singing/marching practice gave certain commands in English (Forward march, At ease, Mark time) and all the children responded appropriately.

The team did not hear any children speaking Hiri Motu but did hear children singing some Hiri Motu songs in Keveona and in Pinu. The pastor's wife in Koupuana, a Motu speaker, reported that the vast majority of children do not understand Motu; her husband called out to some boys in Motu and they answered in Abadi, showing that they at least understand some Motu.

Nothing was observed to contradict the reports that all children are learning the Abadi language and speak Abadi in more domains more frequently than Tok Pisin, English, or Motu. The greatest amount of English use was observed in Pinu but, even there, this English use was restricted to scolding, arguing, and situations where the domain or the people involved would necessitate the use of a language other than the vernacular.

9.2 Adults' language use

9.2.1 As reported

Tables 14 and 15 show reported language use for men and women respectively, in four villages: Keveona, Koupuana, Magavaira, and Pinu. The numbers in the charts are the number of villages (out of the previously mentioned four) that indicate a specific age group uses a language to talk to certain people. The numbers are not exclusive; i.e. one village could report use of more than one language in any given context. For example, three of the villages reported that young men use Tok Pisin when speaking to their brothers and sisters. The age groups are abbreviated as follows:

```
ym = young men, unmarried yw = young women, unmarried mm = married men, children at home mw = married women, children at home ow = old women
```

Ability to speak a language reported as 'a bit,' 'few,' 'a little,' or 'some' is indicated by a star after the number (e.g. 3* means that ability to speak the language was reported in three villages, one of which reported ability as 'a bit,' 'some,' or 'few').

Table 14. Men's language use by number of villages

	Abadi		To	k Pis	sin	E	nglish		Motu ^a			
You to	мх	mm	шо	м	mm	шо	мk	mm	mo	мk	шш	шо
your parents	4	4		0	0		0	0		0	0	
your brothers & sisters	4	4	4	3 ^b	0	0	1 ^c	0	0	0	0	0
your wife		4	4		1	0		1	0		1	0
teach your (grand) kids		4	4		3 ^d	0		1	1		2	1
scold your (grand) kids		4	4		1	0		2	0		0	0
Your wife to your kids		4	4		2	0		2	0		0	0
Your parents to your kids		4			0			0			0	
Your parents to you	4	4		0	0		0	0		0	0	

^a In two villages, Pinu and Koupuana, this was recorded as Hiri Motu. In the other two villages visited it was noted as Motu, but since most reports were of use of Motu for trading, it is possible that these reports were also of Hiri Motu.

Table 15. Women's language use by number of villages

		Abad	i	To	k Pis	sin	Е	nglis	h		Motu	a
You to	yw	мМ	мо	γw	wm	wo	wk	wm	мо	ΜÁ	мш	wo
your parents	2	4		1	0		1	1		1	0	
your brothers & sisters	2	4	4	2*	1	0	1*	1	1	0	0	0
your husband		4	4		2 ^c	0		1	1		0	0
teach your (grand) kids		4	4		3	0		2	1		0	0
scold your (grand) kids		4	4		1	0		1*d	2*e		0	0
Your husband to your kids		4	4		1			1	0		1	1
Your parents to your kids		4			0			0			0	
Your parents to you	2	4		1*	0		1*	0		0	0	

^a In two villages, Pinu and Koupuana, this was recorded as Hiri Motu. In the other two villages visited it was noted as Motu, but since most reports were of use of Motu for trading, it is possible that these reports were also of Hiri Motu.

^b This number 3 includes the village of Keveona, where use of Tok Pisin by young men to their siblings was only reported as 'sometimes'.

^c This number 1 includes the village of Koupuana, where use of English by young men was reported for joking only.

^d In Pinu, this was qualified with the statement that approximately 50 percent of the time married men spoke to their children in Tok Pisin.

^b In Pinu and Magavaira, the language-use questions were not asked of the young girls, so the results in this and consequent columns for young women are only for Koupuana and Keveona.

^c In Keveona, it was reported that only women married to men from other areas would use Tok Pisin to their husbands; however, in Pinu, it was reported that even women married to Abadi men occasionally used Tok Pisin to their husbands.

^d Use of English by both married women and older women to scold their children/grandchildren was reported to be restricted to the use of the word 'stupid.'

^e As previously noted, or alternatively, 'idiot.'

In the preceding tables, Abadi is presented as the most widely-used language across all age and gender groups. The highest use of Tok Pisin was reported by the following: married men and women when teaching their children, and young men when speaking to their siblings. If Abadi speakers were undergoing a shift to Tok Pisin or to English as their primary language, one might expect to see more villages reporting Tok Pisin/English use and a decrease from old age, middle age, to young in the number of villages reporting Abadi use. However, all villages reported Abadi use in all family interactions (NB questions to young women were omitted in two villages, thus, the results given still represent 100 percent positive response to Abadi use in the villages in which these questions were asked of young women). Because Abadi is still the main language used in the home, whatever the age of the speakers involved and, because parents are still teaching Abadi to their children, the situation seems to be that of stable bilingualism, rather than that of language shift; the Abadi language should continue to be spoken for at least the next few generations.

Table 16 compiles the responses for the four Abadi villages reporting language use in certain domains. These questions were asked of a group and the results as such represent the group consensus. The figures represent the number of villages responding positively (out of four visited).

Use of a language reported as 'a bit,' 'few,' 'a little,' or 'some' is indicated by a star after the number (e.g. 2* means that use of the language was reported in two villages, one of which reported use as 'a bit,' 'some,' or 'few.'

Table 16. Language use by domain

What when:	anguages do you use	Abadi	Tok Pisin	English	Motu	Waima	Lala
Arguing	g with family	4	1*	2*	0	0	0
Praying	at home	4	2	4 ^a	0	0	0
Organiz feasts	zing wedding or funeral	4	0	0	1 ^b	0	0
At the i	market	1	4	4	4	1	1
Joking		4	3 ^c	2	4	0	0
Playing	sports	4	2	3*d	2	0	0
Outside	ers who know your language	4	1	0	0	0	0
Outside language	ers who don't know your ge	0	4	2 ^e	4	0	0
_	Do you go to town?	2	4	4	3	0	0
ons in	Speaking to people on the way to town ^f	3	3	1	2	0	0
Fransactions town	Buying or selling at the town's market?	0	4	4	4	0	0
Trans	Buying something in a store?	0	4	4	0	0	0

^a In Pinu, it was commented that children who have grown up there do not know words relating to God in Abadi.

In Table 16, all of the villages reported that Abadi is used in every domain where it is possible to communicate using Abadi. There were two domains that could have been restricted to Abadi only but were not: Prayer (where English is used) and joking (where Motu is used); however, both of these choices of language use were said to pertain only to young people or children and neither are indicators of language vitality.

In situations where there is contact with non-Abadi speakers, the use of Tok Pisin, English, and Motu is prevalent. Depending on the situation participants, people reported selecting any of the three languages. They reported use of Tok Pisin with Highlanders, use of Motu and English with other people from Central Province, and use of English with foreigners in Port Moresby (such as the Chinese trade-store owners).

9.2.2 As observed

In all the Abadi villages visited, the surveyors observed a preference for Abadi in all domains where it was possible to use the vernacular. Use of Motu was heard when the Abadi people were speaking to the Motu-speaking pastors. During the meeting with church leaders in Magavaira, the pastor translated what the surveyor

^b If the organization of the feast involves the Church, then Motu may be used.

^c Reportedly in Pinu, the use of Tok Pisin, English, and Motu for joking is restricted to young people.

^d In Koupuana, use of English in sport was exemplified by the shouting of 'Come on Maroons' and perhaps is restricted to such slogans.

^e In all villages visited in the Abadi area, the survey team communicated in English.

^f This question was not asked in Koupuana.

said in English into Motu, the people responded in Abadi and, then, the pastor translated back into English. When the pastor left, a young mother took his place; She translated directly into Abadi and all discussion among remaining church leaders was in Abadi. During wordlist elicitation in each village, discussion of the most appropriate word for each gloss was conducted in Abadi.

While women were heard speaking Motu to the pastor's wife in Koupuana, not everyone could speak Motu; one lady needed an interpreter (to translate into Motu) in order to speak to the pastor's wife. The young people appeared to be more fluent in Tok Pisin than in Motu or English, with the exception perhaps of Pinu, where the young people spoke good English.

In every Abadi village, visited there were a significant number of people in their 20s–40s who could communicate fluently in English; however, clarification of questions asked in English by the survey team was often sought in Abadi by older people, and discussion during the questionnaires was carried out in Abadi, though answers were given in English. A father was heard yelling at his child in English in Pinu. The family who hosted the survey team in Pinu had previously lived in Port Moresby and spoke very fluent English; they used English to speak to their granddaughter. However, even in Pinu, Abadi was heard most of the time.

The survey team met one monolingual lady in Magavaira who only spoke Abadi.

In conclusion, while some members of the Abadi may use some Tok Pisin, Hiri Motu, and English in domains where it would be possible to solely use Abadi, it was noted that, in general, their language of choice in the vast majority of settings within their speech community was Abadi. Tok Pisin, English, and Hiri Motu are mainly used as languages of wider communication, for scolding, or joking.

9.3 Bilingualism

Table 17 shows the reported level of bilingualism by Abadi speakers. The numbers in each chart are the number of villages where it was reported that an age group 'hears' (is passively bilingual) or speaks a language.

Table 17. Reported bilingualism

Each number is given out of a total of 4 (for the four villages visited). Ability to speak a language reported as 'a bit,' 'few,' 'a little,' or 'some' is indicated by an asterisk after the number. (e.g. 3* means that ability to speak the language was reported in three villages, one of which reported ability as 'a bit,' 'some,' or 'few').

		Young men	Married men (kids in home)	Old men	Young women	Married women (kids in home)	Old women	Children
Abadi	Speak	4	4	4	4	4	4	4
Abdui	Hear							
Tok Pisin	Speak	4	4	2*	4	4	1	4*
TOK PISHI	Hear							
English	Speak	4	4	2*	3	4		4*
Liigiisii	Hear							
Motu	Speak	4*	4*	4	2	3	2	2*
Motu	Hear							
Lala	Speak			4	1*	0 ^a	1	
Laia	Hear	2	3*				1	
Toura	Speak	1*		2		1	1	
Toura	Hear		1					
Waima	Speak		1*	4			2	
waiiia	Hear	2*	1				1	
Mekeo	Speak			1*				
MEKEU	Hear			1				
Koitabu	Speak			1				
KUILADU	Hear							

^a One lady in Koupuana could speak Lala because her father was from Lala.

From the preceding chart, one can see that the younger generation of Abadi speakers report bilingualism in Tok Pisin and English, with limited knowledge of Motu. In contrast, older men more commonly reported the ability to speak, or at least 'hear' other local languages such as Lala, Toura, and Waima. However, among married young men and women of all ages, these languages are only known on an individual basis.

At Agevairu station, a man from Pinu claimed that all Abadi speakers understand Roro (Waima). However, when the Kims, who were accompanying the survey team and have been working in the Waima area for 14 years, attempted to speak to people in Waima, there were very few who understood, particularly among the young people. The team met a few older men who spoke Waima and some women who had married in from Waima. The teenage girls who helped the team carry their bags across the river to Koupuana did not understand when addressed in Waima.

9.4 Summary

Abadi seems particularly strong within the confines of the Abadi-speech community in all domains. It is the first language that children learn and speak well before beginning to speak Tok Pisin and English when they start school. While

children are reported to speak Abadi with family members and playmates, children in all villages are reported to use some Tok Pisin in play. Although some Tok Pisin, English, and Motu is used in village life, the majority of interactions are carried out in Abadi; there are no home domains where Abadi is not the dominant language used. While the older generation are often able to speak many of the surrounding vernaculars as well as Motu, the younger generation are more conversant in Tok Pisin and English and only reported limited knowledge of Motu and the surrounding vernaculars. When interacting with outsiders, Abadi speakers primarily use Tok Pisin, English, and Motu. There is no language that the Abadi use or understand more than Abadi.

10. LANGUAGE ATTITUDES

10.1 As reported

Table 18 displays responses, in the four Abadi villages visited, to questions revealing language attitudes. The languages were recorded in the order given by speakers (which could be an indication of preference).

	Keveona	Koupuana	Magavaira	Pinu
What languages do you want your children to know well?	English Abadi	Abadi English	English Abadi	Abadi English
What languages do you think they will use when they grow up?	English Tok Pisin Abadi	Abadi Tok Pisin English	Tok Pisin	Abadi
What languages will they use to their children?	English Abadi	Abadi	Tok Pisin English	Abadi
Will your language still be used in 20-years time?	No	No	-	Yes

Table 18. Language attitudes

With the exception of Magavaira, respondents in all villages believe their children will still speak Abadi when they grow up and will speak Abadi to their children. In Pinu, it was thought children would only use Abadi, because they are learning it 'properly' in elementary school. In Magavaira, it was thought that, when the current children are adults, they will speak only Tok Pisin and English. The use of Tok Pisin and English to the children of the next generation, in addition to Abadi, was also predicted in Koupuana and Keveona.

However, half of the villages believed their language would not be used in 20-years time. The rationale for this thinking was that, at present, the children play a lot in English and Tok Pisin, so would primarily use these language when they grow up. There was also a feeling that they are westernizing; the influence from Port Moresby is increasing, and in 20-years time their living standards will be like the city.

There was clearly a desire for children to know English well, in fact, in one half of the villages it was put before Abadi as the most important and beneficial language for them to know. However, no one seemed to believe that their children would only know English and teach only English to their children. There was a clear preference on the part of the adults for English over Tok Pisin. In fact, in Pinu, several parents said they didn't like their children speaking in Tok Pisin, which they regarded as 'broken English.' Grade 2 students in Magavaira spoke in English with the survey team and said that English was their favorite language.

The preceding information appears to be conflicting, because the question asking about '20-years time' was perhaps slightly misleading in a culture where exact time references are uncommon. It would be fair to say that the prediction of '20-years time' was the long-term prediction for their language, whereas, when asked about

this generation becoming adults, this was considered the short-term prediction; so the people did not predict the death of their language in the lifetime of their children, but maybe after that. Perhaps one of the reasons for this prediction is a misunderstanding that borrowing words and using another language for joking and scolding are indicators that the vernacular is weakening, when this is not necessarily the case.

In three out of four villages visited, people responded to the question, 'What language would you like to read books in,' with English first. This may be due to the fact that, at present, no books exist in Abadi, so the question was slightly confusing for people to imagine a scenario where they could read in Abadi. However, in Pinu, Abadi was given as the response, and in Keveona, Abadi was also listed after English and Motu. All the villages agreed that listening to stories in Abadi is best.

10.2 As inferred from behaviour

If language attitude supports language behaviour and language behaviour substantiates language attitude, then there seems to be, at least in practice, a relatively-positive attitude toward the Abadi language. Other than interactions with the survey team, while some use of English and Tok Pisin was observed among children in the Abadi villages visited, the primary language which was heard the majority of the time was Abadi. It is interesting to note that, while Pinu was the only village that predicted the sole use of Abadi by the current generation to their future children, they were the village where the greatest use of English among children was observed. However, even in Pinu, Abadi appeared to be the language of choice for discussion and family interaction.

A positive attitude toward English was evident, particularly in relation to education. However, the survey team wondered whether the response of English and seeming enthusiasm was, in part, sometimes fuelled by a desire to please the English-speaking survey team.

If the Abadi people continue with their current trends in language use, while the next generation may be more fluent in English than in Motu or other vernaculars, it seems unlikely that English will replace Abadi. In addition, the actual economic situation, reported in all the Abadi villages visited, is that it is more lucrative to live outside the capital and sell garden produce in the city markets than it is to take a job and home in Port Moresby. Because living and working in the villages is the preferred path to economic success for the Abadi people, there is incentive to continue speaking Abadi, the language most widely used in the villages. Thus, the economic situation points toward linguistic vitality for Abadi.

11. CONCLUSIONS

The Abadi language is currently vital, however, indicators suggest that this vitality may decrease in coming years. While Abadi is used extensively in the community, children are increasingly using Tok Pisin, especially in play, an area indicative of potential language shift. Abadi speakers generally have a positive attitude about their language, but also indicated that they believe their language will not be spoken in the future.

Because of the current vitality of Abadi and community leaders' expressed interest in language development, it appears that a language-development program would be appropriate and viable in the Abadi area. High levels of education, material resources available in the Abadi area, and the interest on the part of the local church means that the Abadi people would be able to contribute to a language-development program in their area.

If an outsider wished to live in an Abadi village for the purpose of language learning, Keveona would be the most ideal because: (1) English and Tok Pisin are used less frequently there than in Magavaira and Pinu, additionally, (2) the river near Keveona provides an excellent source of water, which contributes to better living conditions.

APPENDIX A

A.1 Materials published in or about the language

Currently, there are no published materials available in the Abadi language; some old men in Pinu remembered that a long time ago there was an Abadi primer. Materials written about or mentioning the Abadi language are as follows:

- Bluhme, Hermann. 1970. "The phoneme system and its distribution in Roro." In Wurm and Laycock, eds. Pacific Linguistic Studies in Honour of Arthur Capell. Series C-13. 867–877. Canberra: Pacific Linguistics.
- Capell, A. 1943. The linguistic position of South-Eastern Papua. Sydney: Australian Medical Publishing Company Limited.
- Capell, A. 1962. A linguistic survey of the South-Western Pacific. Nouméa: South Pacific Commission.
- Dutton, T. E. 1973. A checklist of languages and present-day villages of Central and South-East Mainland Papua. Series B-24. Canberra: Pacific Linguistics.
- Dutton, T. E. "Austronesian languages: Eastern part of South-Eastern Mainland Papua." In Wurm, S. A., ed. 1976. New Guinea area languages and language study, vol 2: Austonesian languages. Series C-39. 321–333. Canberra: Pacific Linguistics.
- Dutton, T. E. "Magori and similar languages of South-East Papua." In Wurm, S. A., ed. 1976. New Guinea area languages and language study, vol 2: Austonesian languages. Series C-39. 581–636. Canberra: Pacific Linguistics.
- Gabadi Primer. 1950. Issued by authority of the Papua District Committee. London Missionary Society, Australia and New Zealand Committee, Chalmers House, Petersham, N.S.W.
- Grimes, Joseph E. 1995. Language survey reference guide. Dallas: SIL.
- National Statistical Office. 2002. 2000 National Census: Community Profile System. Port Moresby: National Statistical Office.
- Pastor Timoteo. 1897. Notes on the Kabadi dialect of New Guinea. Newell, J.E., editor and translator. Polynesian Society Journal, 1897 #6. 201–208.
- Pawley, Andrew. "Austronesian Languages: Western part of South-Eastern Mainland Papua." In Wurm, S. A., ed. 301–319.
- Pfantz, Darryl. 2000. Four categories for language projects. Manuscript. Ukarumpa: SIL.
- Quigley, Ed and Susan. 1993. Sociolinguistic survey of the Kuni language group. Manuscript. Ukarumpa: SIL.
- Ross, Malcom. 1983. The genetic relationships of the Austronesian languages of Papua. Australian National University: Fifteenth Pacific Science Congress. Manuscript.

- Ross, M. D. 1988. Proto oceanic and the Austronesian languages of Western Melanesia. Series C-98. Especially chapter 6, pp. 190–212. Canberra: Pacific Linguistics.
- Strong, W. Mersh. 1912. Notes on the language of Kabadi, British New Guinea. Anthropos, 1912 #7. 155–160.
- Taylor, A. J. "History of research in Austronesian languages: Western part of South-Eastern Mainland Papua." In Wurm, S. A., ed. 1976. New Guinea area languages and language study, Vol. 2, Austronesian languages. Series C-39. 141–149. Canberra: Pacific Linguistics.
- Walker, Roland W. 1991. "Measuring language attitudes and language use." In Notes on Literature in Use and Language Programs 28. 12–18. Dallas: SIL.
- Wurm, S. A., ed. 1976. New Guinea area languages and language study, Vol. 2, Austronesian languages. Pacific Linguistics, Series C-39. Canberra: Pacific Linguistics.
- Wurm, S. A. and Shiro Hattori. 1981. Language atlas of the Pacific Area. Series C-66. Canberra: Pacific Linguistics.

A.2 Lexicostatistical data explanation

A.2.1 Affixes

Affixes from the data gathered, which could be considered special markers, were separated from the root of the word before the similarity criteria was applied; these included the following, as shown in Table A.1:

Possible function	A	badi		Lala	T	oura
	Prefix	Suffix	Prefix	Suffix	Prefix	Suffix
Possessive	?a-	-na		-?u / -?a		-na / -nə / -bu
Singular/plural		-na / -da / -dio		-na		-na
	e- / ε-		e- / ε-		e-	
Verb markers – might		-do		-ti		-tio
be person, tense, or aspect		-ə / -a		-u / -o / -a		-ko
		-u				-?u
Adjective marker		-?a / -?i		-na		-na
Numeral marker					au-	

Table A.1. Possible affixes and functions in Abadi, Lala, and Toura

A.2.2 Non-conforming lexical similarity sets

Several words were grouped together into the same similarity set, although they did not strictly adhere to Blair's similarity criteria; see Table A.2. (Blair, 1990: 31–33).

Table A.2. Cognate sets not conforming to Blair's similarity criteria

Gloss numbers	Explanation
4, 6, 37, 99, 123,	The root of these words are clearly the same in Lala, Toura, and Abadi.
128, 144, 153,	The remaining phones, while not occurring as frequently or
154, 155, 156,	consistently as those listed in Table A.1, are also considered to be
157, 158, 168	affixes, though their meaning or function was uncertain.

A.2.3 Possible phonetic correspondences

Table A.3. Possible phonetic correspondences between Abadi, Lala, and Toura

Abadi	Lala	Toura	Attested in gloss number
g		t	54, 141, 138
g	d		155, 156, 54, 92
ſ	1	ſ	11, 25, 26
n	1		58, 162
S	k	k	12, 58, 62
_		h	68, 69, 101
~	~	h	70, 85

The correlation of [#] in Abadi to [h] in Toura is most probably linked to the correlation of $[\beta]$ and [h]; in the former case, the $[\beta]$ has been lost completely from Abadi.

A.3 Abadi wordlists

The following Abadi wordlists were elicited in Koupuana, Keveona, Magavaira, and Pinu villages:

	_	Koupuana	Keveona	Magavaira	Pinu
1	(his) head	ro?onana	to3o	to3o	ro?ona
2	(his) hair	ijanaidunana	idu	idu	idu
3	(his) mouth	ijanaagenana	age	age	age
4	(his) nose	ijanaidukuanana	iduk ^h uə	idukua	iduk ^h ua
5	(his) eye	ijanamak ^h anana	mak ^h a	mak ^h a	mak ^h a
6	(his) neck (all or nape)	ijanaagogemonana	ago	egu	egu
7	(his) belly	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED
8	(his) skin (human)	ijanaβareanana	βareə	baira	βaera
9	(his) knee	ijana?o?iβanana	o?iva	?o?iva	o?iva
10	(his) ear (external)	ijanak ^h ajnanana	k ^h aina	k ^h aina	k ^h aina
11	(his) tongue	ijanamaranana	mara	mala	mara
12	(his) tooth	ijananise?nana	nise	nise	nise
13	(her) breast	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED
14	(his) hand	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED
15	(his) foot	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED
16	(his) back	puripurinana	puripuri	puripurina	$p^{h}urip^{h}uri$
17	(his) shoulder	arobakunana	arobaku	arobakuna	arobak ^h u
18	(his) forehead	ba?unana	ba?u	pa?una	ba?u
19	(his) chin	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED
20	(his) elbow	imanana?odu?odunana	?odu?odu	odu?oduna	?odu?odu
21	(his) thumb	imanana?orabaganana	orabaga	orabagana	?orabaga
22	(his) leg	a ^j ənana	ae	aena	ae
23	(his) heart	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED
24	(his) liver	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED
25	(his) bone	kulianana	kuriə	kuriə	k ^h uriə
26	(his) blood	raranana	rara	rara	rara
27	baby	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED
28	girl	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED
29	boy	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED
30	old woman	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED
31	old man	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED
32	woman	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED
33	man	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED
34	(his) father	auanana	aua	?auanana	?aua
35	(his) mother	ajdənana	aidə	?aidənana	?aida
36	brother (older of man)	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED
37	sister (older of man)	?a?obanana	?a?oba	auba?una	a?oba
38	name	?aganana	a:ga	agana	aga
39	bird	manumanuna	manumanu	manumanu	manumanu

		Koupuana	Keveona	Magavaira	Pinu
40	dog	oβekanə	oβekʰa	oβeka	oβekʰa
41	pig	boromanə	boroma	boroma	boroma
42	cassowary	βiona	βίο	βijo	βίο
43	wallaby	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED
44	flying fox	manubo?inə	manubo?i	manubo?i	manubo?i
45	rat	kauana	kaua	k ^h aua	k^{h} aua
46	frog	aramosəmosana	aramota	aramota	aramotamota
47	snake	bajbajnə	baibai	baibai	baibai
48	fish	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED
49	person	kauna	k ^h au	k^h auna k^h a	k^h au
50	he sits	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED
51	he stands	ijanaejaβaβa	αβα	eαβαβα	eαβα
52	he lies down (reclines)	e?enodoβə	?enodo	enodoβa	e?ɛnodo
53	he sleeps	e?enoβə	?enodo	enodoβa	?eno
54	he walks	eganəgereaßa	kanagori	eganagoriβa	eganagere?a
55	he bites (a dog)	earəsaβə	arasa	earasaβa	earasa
56	he eats	eanianiβa	aniani	eanianiβa	eaniani
57	he gives it to me	еβепіиβа	eβeniuva	еβεпіиβа	evenia
58	he sees	esanaßa	esanə	esanaβa	eisana
59	he comes	emajβə	emai eva	emaeβa	emai
60	he says	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED
61	he hears	eonaβa	eono	eonoβa	eonoβa
62	he knows	esa?aku	esa?aku	esa?aku	esa?aku
63	he drinks	e?inuraβa	einu	e?inuβa	einu
64	he hits	ekarajaβa	k^{h} araiə	ekʰaɾaiəβə	ekaraiə
65	he kills	ejakunaβa	eak ^h una	eakunaßa	eak ^h una
66	he dies	egeoβa	egeo	egeoβa	egeo
67	it burns (fire is burning)	ejaraβa	eara	earaßa	earasa
68	it flies	erooβa	elo	erooβa	eroo
69	he swims	enauβa	enau	enaußa	enau
70	he runs	еβеаиβа	eβeau	еβеаиβа	eβeau
71	he falls down	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED
72	he catches	εbidonaβa	bidona	ebidonaßa	ebidona
73	he coughs	enodivə	nodi	enodiβa	enodi
74	he laughs	εναjnαjβα	βainai	eβainaiβa	eβainai
75	he dances	εβαιίαβα	βariə	еβагіаβа	eβariə
76	big	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED
77	small	mara?i	mara?i	mala?i	mara?i
78	good	nonoa	nonoə	nonoa	nonoa
79	bad	gaga?a	gaga?a	kaka?a	gaga?a
80	long	ma:βa	ma:βa	таβа	ma:βa
81	short	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED

		Koupuana	Keveona	Magavaira	Pinu
82	heavy	sina?a	sina?a	sina?a	sina?a
83	light	rai?a	rai?a	rai?a	rai?a
84	cold (water)	imari	imari	imari	imari
85	warm	siausiau	siau	siausiau	siausiau
86	new	makəmakə	mak^{h} a mak^{h} a	makamaka	$m\alpha k^h\alpha m\alpha k^h\alpha$
87	old	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED
88	round	gu?o	gu?o	gu?ou	gu?ougu?ou
89	wet (clothing)	βеβе	βеіβеі	βеіβеі	βеіβеі
90	dry (clothing)	baro	baro	paro	baro:
91	full	a:ga	?agə	aga	aga
92	road	gere?ana	gere?a	kere?ana	gere?a
93	stone	βaku	βαkʰu	βaku	βαkʰu
94	earth (ground)	kaβara	kaβarə	kaβara	kavara
95	sand	rari?a	rari?ə	rari?ə	rari?a
96	mountain	a?abu	?a?abu	?a?abu	a?abu
97	fire	auarara	auarara	auarara	auarara
98	smoke	siaunana	siau	siau	siau
99	ashes	raudə	rau	rauda	rau
100	sun	agonə	agona	agona	ago
101	moon	uenə	ue	uena	ue
102	star	visiunə	βisiu	βisiu	βisiu
103	cloud	oridə	ori	ori	ori
104	rain	ubana	?uba	ubana	uba
105	wind	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED
106	water	βei	vei	βei	βei
107	vine	poa	poa	p ^h oa	p ^h oap ^h oa
108	tree	auna	?aunə	au	au
109	stick	ikoiko	ikoiko	ikoiko	ik ^h oik ^h o
110	bark (tree)	βajranana	βareə	aunaßareana	βaera
111	seed (for planting)	mo?anə	mo?oa	mo?a	mo?a
112	root	ramunə	ramuna	ramu	ramu
113	leaf	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED
	meat	βeada	βidio	βeana	βeα
115	fat	meranə	mera	mera	mera
116	egg	mumunə	mumu	mumu	mumu
	louse	amuninə	amuni	amuni	amuni
	feather	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED
119	horn (of an animal)	akaranə	akara	?akara	ak ^h ara
	wing	βaninə	βanina	βanidada	vanina
	claw	imanaou?onə	?ou?ou	imada?ou?oudada	ou?ou
122		junə	iuna	iunana	iuna
123	one	kapeə	k ^h ap ^h eə	k ^h a:	k ^h ap ^h ea

	Koupuana	Keveona	Magavaira	Pinu
124 two	ruə	ruə	rua	rua
125 three	koj	koi	koi	koi
126 four	βani	βani	βani	βani
127 five	imə	ima	imə	ima
128 ten	okə	oukə	?ouka	ouka
128 taro	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED
130 sugarcane	akenə	?ake	ake	ak ^h e
131 yam	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED
132 banana	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED
133 sweet potato	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED
134 bean	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED
135 axe	iranə	i:ra	i:ra	ira
136 knife	kaijenə	kaijə	kʰɑijə	k^h aia
137 arrow (spear)	dibənə	diba	diba	diba
138 net bag (woman's)	ogonə	ogo	ogo	ogo
139 house	rumanə	lumə	ruma	ruma
140 tobacco	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED
141 morning	gabəgabənə	gabagaba	gabagaba	gabagaba
142 afternoon	rαβirαβinə	raβeraβe	raβiraβi	raβiraβi
143 night	vabuganə	βabuga	βabuga	βabuga
144 yesterday	rαβinə	rαβinə	rαβinə	rαβinə
145 tomorrow	maranə	mara	marana	maranə
146 white	uriuri	uri	uriuri	uriuri
147 black	gubəgubə	guba	gubaguba	gubaguba
148 yellow	aubəaubə	auba	aubauba	auba:uba
149 red	pajrəpajrə	paira	p^h aira	p^h aira p^h aira
150 green	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED
151 many	ira?u	ira?u	ira?u	ira?u
152 all	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED
153 this	?i?inana	?i?inana	ei?inana	i?inana
154 that	?a?anana	?a?aianana	a?anana	a?anana
155 what?	gaβakə	kaβakʰa	kaβakʰa	gaßakʰa
156 who?	gaj	gai	kai	gai
157 when?	awagaβaj	awagaβai	agogaßai	agogavai
158 where?	ajenaj	aiənai	aiənai	aiənai
159 yes	еә	?eja	eə	ea
160 no	ve?o	βе?о	βе?о	βe?o
161 not (he is not standing)	daejaβaβa	eanadaeaβaβa	ijanadaeaβaβa	ianadaeaβaβa
162 I	nana	nana	nana	nana
163 you (singular)	oninə	oninə	onina	onina
164 he	ijana	ijana	iana	iana
165 we two (exclusive)	isadarua	kaumairua	naidarua	naidarua

	Koupuana	Keveona	Magavaira	Pinu
166 you two	uidərua	uidarua	uidarua	uidarua
167 they two	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED
168 we (plural exclusive)	najdə	naidə	naida	naida
169 you (plural)	uidə	uidə	uida	uida
170 they (plural)	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED

A.4 Lala and Toura wordlists

The following Lala wordlists were elicited in Ala'ala, Kaiau, Oroi, and Vanuamai; the Toura wordlists were elicited in Akuku and Toromoku:

		Ala'ala	Kaiau	Oroi	Vanuamai	Akuku	Toromoku
1	(his) head	ola	ola?u	ola	ola?u	?ara	ala
2	(his) hair	βui	βoiu	βui	βui	hui	hui
3	(his) mouth	nut ^h u	nuto?u	nutu	nut ^h u?u	utu	utu
4	(his) nose	idu	idu?u	idu	idu?u	uru?urunə	uru?uru
5	(his) eye	maka	maka?u	mak^ha	maka?u	makana	makə
6	(his) neck (all or nape)	εtu	etu?u	et^hu	at ^h o?u	?atubuna	atobu
7	(his) belly	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED
8	(his) skin (human)	αβα	ava?u	αβα	αβα?u	vaha	vahə
9	(his) knee	kui	kui?u	$k^{\rm h}$ ui	kui?u	kui•na	k^hui
10	(his) ear (external)	k^{h} aiə	kaiaiu	k^{h} aiə	k ^h aiaiu	kaiana	k ^h ajə
11	(his) tongue	mala	mala?u	mala	mala?a	marana	mara
12	(his) tooth	nike	nike?u	$nik^{h}e$	nike?u	ikena	ike
13	(her) breast	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED
14	(his) hand	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED
15	(his) foot	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED
16	(his) back	k ^h abe	kabe?u	k^{h} abe	kʰabe?u	taira	t ^h aira
17	(his) shoulder	βou	βou?u	βou	βou?u	pʰaʔa	fa?a
18	(his) forehead	ba?u	bau?u	ba?u	bau?u	pauna	bau
19	(his) chin	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED
20	(his) elbow	diu	diu?u	diu	diu?u	imakwiva?i	kwiva?i
21	(his) thumb	olubata	olubata	olubat ^h a	ima?uolubat ^h an	aarubata	alubata
22	(his) leg	ae	ae?u	ae	ae?u	ae	ae
23	(his) heart	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED
24	(his) liver	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED
25	(his) bone	k ^h uliə	kulia	k ^h uliə	k ^h ulia	kuriə	kuria
26	(his) blood	lala	lala	lala	lala	rara	ιαια
27	baby	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED
28	girl	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED
29	boy	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED
30	old woman	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED
31	old man	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED
32	woman	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED
33	man	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED
34	(his) father	k^{h} ama	kʰamaʔu	$k^{\text{h}}\text{amana}$	k ^h ama	kamanə	k^h ama
35	(his) mother	sina	sinau	sinə	sina	sinanə	sinə
36	brother (older of man)	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED
37	sister (older of man)	loβu	loβu?u	loβu	loβu?u	abatoa?u	abatoə
38	name	βα	βau	βα	βana	ata	?a•ta
39	bird	manumanu	manumanu	manumanu	manumanu	manu	manu

	Alt Laid and Tourd Wordinsts (Continued).							
		Ala'ala	Kaiau	Oroi	Vanuamai	Akuku	Toromoku	
40	dog	oβek ^h α	oveka	oβek ^h a	oβeka	sisiə	sisiə	
41	pig	boloma	boloma	boloma	boloma	boroma	boroma	
42	cassowary	vio	vio	βίο	βio	uahu	uahu	
43	wallaby	DISQUALIFIED	DISQUALIFIED	_	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	
44	flying fox	bo?alama	boalama	bo?alamə	bo?alama	varibo?i	varibo?i	
45	rat	uduβe	uduve	uduße	uduβe	bika	bikə	
46	frog	alabeto	alabeto	alabet ^h o	alabeto	jo?ara	jo?arə	
47	snake	kʰauʔasi	k ^h auasi	kʰauʔɛsi	kʰauʔasi	baibai	baibai	
48	fish	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	
49	person	k ^h au	k ^h au	k^{h} au	k ^h au	k ^h au	k ^h au	
50	he sits	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	
51	he stands	iaelalaßa	elalaßa	εlalaβa	elalaßa	einiko	einiko	
52	he lies down (reclines)	iaenodiβo	enodiβo	εlodiβo	enodiβo	ekotioko	ekotioko	
53	he sleeps	ieamauinai	emiunai	εmuinai	emuinai	emunaiko	εmunaiko	
54	he walks	iaedada?a	edada?a	εdada?a	edada?a	etaravariko	etalavariko	
55	he bites (a dog)	iaealala	ealala	ealala	ealala	eæfuako	eafuako	
56	he eats	iaeaniani	eaniani	eaniani	eaniani	eæniæniko	eanianiko	
57	he gives it to me	iaeβeni?u	eβeni?u	eβεni?u	eβeni?u	ehɛni?uko	eheni?uko	
58	he sees	iaeik ^h ala	eik ^h ala	eik ^h alə	eikala	ekajako	eikaiako	
59	he comes	iae?asi	ea:asi	e?asi	e?asi	e?auko	e?auko	
60	he says	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	
61	he hears	e?ikʰa	lailaiaik ^h a	e?ikʰa	lele?e?ika	eha?eko	eha?eko	
62	he knows	iaekaβasi	ekabasi	ek^h abasi	ekabasi	iaeka?aku	eika?aku	
63	he drinks	einua	βeieinu	einua	einua	einuako	einuako	
64	he hits	eak ^h ua	eakua	eak ^h ua	eakua	eakuako	eakuako	
65	he kills	eakubala	eakubala	eak ^h ubala	eakubala	earajako	earajako	
66	he dies	eba	eba	eba	eba	emakeko	emakeko	
67	it burns (fire is burning)	e?ani	eəani	e?ani	e?ani	earako	earako	
68	it flies	eloloβo	elolovo	eloloβo	eloloβo	erohoko	erohoko	
69	he swims	enana?u	enanau	enana?u	enana?u	enahuko	enahuko	
70	he runs	eβeau	eveau	eβeau	eβea?u	eheuko	eheuko	
71	he falls down	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	
72	he catches	ebitoə	ebitoa	ebit ^h oə	ebitoa	ena?eako	ena?eako	
73	he coughs	enonodi	enonodi	enonodi	enonodi	enotiko	enotiko	
74	he laughs	emamai	emamai	emamai	emamai	ememaiko	emamaiko	
75	he dances	eneneβa	eneneβa	eneneβə	eneneßa	e:vako	e'vako	
76	big	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	
77	small	$k^{\mathrm{h}}ik^{\mathrm{h}}ina$	$k^{\rm h}ik^{\rm h}ina$	$k^{\mathrm{h}}ik^{\mathrm{h}}ina$	$k^{\rm h}ik^{\rm h}ina$	marahinə	malahi	
78	good	mediana	mediana	mεdiana	mediana	namana	nama	
79	bad	siaβana	siauβana	siaβana	si?aβana	ti?ana	ti?ana	
80	long	laka?ena	laka?ena	laka?ena	aulakana	rakahonə	lakahona	
81	short	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	

		Ala'ala	Kaiau	Oroi	Vanuamai	Akuku	Toromoku
82	heavy	mek ^h au	mekauna	mek ^h au	mekauna	uru?ana	uru?ana
83	light	βεαβεα	βeaβeana	βeaβeanə	βeaßeana	raihana	laihana
84	cold (water)	elu	?elu	elu	?elu	imari	imarina
85	warm	siaβusiaβuna	siaβu	siaßusiaßu	siaβu	siahu	siahuna
86	new	mak ^h amak ^h a	makamakana	$mak^hamak^ha\\$	makamakana	ı makamakanı	gmakamakana
87	old	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED
88	round	ot ^h oina	otoina	ot ^h oi	ot ^h oina	oboruna	oboluna
89	wet (clothing)	βeina	βeina	βeina	еβеі	βeiβeina	veiveina
90	dry (clothing)	ladana	ladana	ladana	ladana	ra?atana	ra?atana
91	full	eβonu	eβono	βonu	βonuan	honuna	honuna
92	road	dala	dala	dala	dala	tara	tara
93	stone	bikʰa?a	bika:	bik ^h a?a	bikʰa?a	ru?ara	lu?arə
94	earth (ground)	$k^{\rm h}$ ano	k^{h} ano	k^{h} ano	k^{h} ano	k^{h} ano	k^{h} anobata
95	sand	nabua	nabua	nabua	nabua	rari?a	rari?ə
96	mountain	lolo	lolo	lolo	lolo	lolo	lolo
97	fire	αloβα	aulova	αΙοβα	alova	aroha	aloha
98	smoke	βaitabu	βaitabu	βaitabu	βaitabu	arahu	arahu
99	ashes	lavu	lavu	Ιαβυ	laβu	kokorahu	kokorahu
100	sun	melala	melala	melala	melala	ti·na	ti·na
101	moon	vuia	βuia	βuiə	βuia	huia	hwia
102	star	visiu	βisiu	βisiu	βisiu	bisiu	bisiu
103	cloud	oli	oli	oli	oli	ori	oli
104	rain	lamu	lamu	lamu	lamu	uba	uba
105	wind	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED
106	water	βei	vei	βei	βei	βei	vei
107	vine	βalo	βalo	βalo	βαlο	βαιοβαιο	varovaro
108	tree	au	au	au	au	au	au
109	stick	ikʰokʰoʔa	ikokoa	ik ^h ok ^h o?a	ikoko?a	ikokora	ikokola
110	bark (tree)	auaβana	aβana	auaβana	αυαβαπα	auβahana	auvahana
111	seed (for planting)	$k^{h}ea$	keana	$k^{h}e =$	keia	kuma?ana	kuma?a
112	root	lamuna	lamuna	lamunə	lamulamu	ramuna	ramu
113	leaf	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED
114	meat	sisi	sisi	sisi	sisi	hetiona	hetio
115	fat	diala	dialana	diala	diala	tiarana	tiarə
116	egg	akʰoi	akoi	akʰoi	akoi	akui	akui
117	louse	uk ^h u	uku	uku	uku	uku	uku
118	feather	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED
119	horn (of an animal)	kusi:va	kusiva	kʰusiβa	kusiva	akaraha	akaraha
120	wing	vanina	βanina	βanina	βanina	hanina	hani
121	claw	me?o	meo	me?o	me?o	ikesiha	iketiha
122	tail	juna	iuna	iu	iu	iu	iu
123	one	k ^h a?onamo	kaunamo	$k^{\rm h}\alpha$	ka?onamo	auka?ona	aka?ona

	A.T Laid dild IV		_	a).			
		Ala'ala	Kaiau	Oroi	Vanuamai	Akuku	Toromoku
124	two	lua	lua	lua	lua	auruə	aurua
125	three	koi	koi	koi	koi	aukui	aukui
126	four	βani	βani	βani	βani	auhani	auhani
127	five	ima	ima	ima	ima	auima	auima
128	ten	ouk ^h a	ouka	ouk ^h a	ouka	oukara	oukara
129	taro	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED
130	sugarcane	mabua	mabua	mabu	mabua	keba	keba
131	yam	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED
132	banana	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED
133	sweet potato	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED
134	bean	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED
135	axe	ila	ila	ila	ila	ira	ila
136	knife	lep ^h o	lepo	lep ^h o	lepo	kaiə	k^{h} aiə
137	arrow (spear)	siba	siba	sibə	siba	tiba	tiba
138	net bag (woman's)	βoinα	voina	βoina	βoina	otu	o:ta
139	house	luma	luma	luma	luma	ruma	luma
140	tobacco	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED
141	morning	?αβυ?αβυ	αβυαβυ	?αβυ?αβυ	αβυ?αβυ	tabataba	tabataba
142	afternoon	lavilavi	lavilavi	ΙαβίΙαβί	lavilavi	rahirahi	lahilahi
143	night	bo:ni	boʻni	bo:ni	bo:ni	βabura	vabura
144	yesterday	lavi	lavi	Ιαβί	lavi	βara?ani	vara?ani
145	tomorrow	mala	mala	mala	mala	tabai	tabai
146	white	deva?ina	devaina	deva?i	deva?ina	bu?ebu?e	bu?ebu?e
147	black	uma?umana	uma?umana	?uma?uma	umaumana	tuba?a	tuba?a
148	yellow	laubana	laubana	lauba	laubana	rau?a	lau?a
149	red	aulana	aulana	aola	aulana	baba?a	baba?a
150	green	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED
151	many	dounamo	dounamo	dounamo	dounamo	momohere	momohere
152	all	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED
153	this	k^{h} anania	k^{h} anania	kanania	k^{h} anania	ni?ina	ni?ina
154	that	k^{h} anaua	kʰanaeβa	kanaua	k^{h} anaua	βa?ana	va?ana
155	what?	dava	dava	daβa	dava	tahakə	taha
156	who?	dae	dae	dae	dai	taika	tai
157	when?	aida	aida	aida	aidani	aitara?ani	aitala?ani
158	where?	aia?i	aiai	a?e	aija?i	ijan?i	ja?i
159	yes	o:	o:	O:	o:	e:	e:
160	no	asi?i	asi?i	asi?i	asi?i	asi?ə	asi?ə
161	not (he is not standing)	iasiaelelaβa	siaelalaßa	iaeβasiaelalaβa	siaelalava	iaseiniko	iaseiniko
162	I	lau	lau	lau	lau	nau	nau
163	you (singular)	oni	oni	o:ni	oni	oi	oi
164	he	ia	ia	ia	ia	ia	ia
165	we two (exclusive)	lailaluana	lailaluana	lailaluana	lailaluana	namaiaulusimai	namaiaulusimai

		Ala'ala	Kaiau	Oroi	Vanuamai	Akuku	Toromoku
166	you two	oilaluana	oilaluana	oilalua	oilaluana	umuiaulusimui	umuiaulusimui
167	they two	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED
168	we (plural exclusive)	lae	lai	lai	lai	namai	namai
169	you (plural)	oi	oieva	oi	oi	umui	umui
170	they (plural)	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED	DISQUALIFIED

REFERENCES

- Blair, Frank. 1990. Survey on a shoestring: a manual for small-scale language surveys. Dallas: SIL.
- Grimes, Barbara F. 1988. "Why test intelligibility?." Notes on Linguistics 42: 39–64. SIL.
- Grimes, Barbara F., ed. 2000. Ethnologue, Volume 1: Languages of the World, Fourteenth Edition. Dallas: SIL.
- Sanders, Arden G. 1977. "Guidelines for conducting a lexicostatistic survey in Papua New Guinea." In Richard Loving and Gary Simons eds. Language variation and survey techniques. 21–41. Workpapers in Papua New Guinea Languages, 21. Ukarumpa: SIL.
- Tauberschmidt, Gerhard, and Mark Onken. 1999. Organized phonology data: Abadi. Manuscript. Ukarumpa: SIL.
- Wimbish, John S. 1989. WORDSURV: a program for analyzing language survey wordlists. Occasional Publications in Academic Computing, 13. Dallas: SIL.
- Wurm, Stephen A. and Kenneth A. McElhanon. 1975. "Papuan language classification problems." In Stephen A. Wurm ed. Papuan languages and the New Guinea linguistic scene: New Guinea area languages and language study, vol. 1. 145–164. Series C-38. Canberra: Pacific Linguistics.