CHAPTER FOUR

RESEARCH METHODOLOGY

4.1 Introduction

This chapter describes and explains the research methodology used in this study and is divided into five main sections. Following a brief introduction on the purposes of this ethnographic research is the second section that gives the rationale for the research approach which incorporates both quantitative and qualitative methods. The third section describes the respondents of this research, the fourth section touches on the instrumentation and the procedures of data collection. The last section discusses how the data is analysed.

4.2 Purposes of the Research

The major thrust of the study was to investigate language choice trends among the rural and urban Bidayuh undergraduates belonging to three main Dayak Bidayuh dialect groups namely Bau-Jagoi, Biatah and Bukar-Sadong in the home and university domains. Under the home domain, code selection with different family members was investigated on the basis of language interactions with different generations. The university domain investigated language choice in both intra and across dialect group interactions. The university domain was divided into the sub-domains of friendship, studies, and religion. The secondary

thrust of the study was to determine why the Dayak Bidayuh undergraduates were using different code choices with different Dayak Bidayuh speech partners at home as well as in the university.

4.3 Rationale for using both quantitative and qualitative research methods

For the quantitative part of the study a fifty-five item questionnaire was used for macro analysis so as to establish information on the respondents' background, language proficiency, language beliefs and language choice in the home and university domains. However, this etic description could not be totally accurate because the respondents could have asked someone else to fill in the questionnaire for them. Besides that, the questionnaire only provided a macro perspective of language choice of the respondents.

In order to make the findings more accurate, a micro analysis of language used by individuals was conducted to support the macro analysis in this descriptive study. According to Patton (1985), the micro analysis helped to understand the nature of the setting and the analysis strived for depth of understanding of the language situation.

Therefore, by audio recordings whereby naturally occurring conversations were later transcribed, a more accurate interpretation of language choice patterns among the Dayak Bidayuh undergraduates was obtained. Through interviews and observations, the researcher was able to obtain explanations for their

reasons of code selection. The interviews provided an indepth insight about the phenomenon being investigated and determined reasons for language choice (see Chapters 6, 7 and 8).

4.4 Background information of the respondents

The Dayak Bidayuh undergraduates had a shared linguistic repertoire of some common codes. These consisted of languages learnt at school such as Bahasa Melayu and English, and the local lingua franca i.e. Sarawak Malay. The Bidayuh undergraduates of each dialect group had knowledge of their own Bidayuh dialect. When interacting with the different generations of family members at home and other Dayak Bidayuh undergraduates in the university, not one code but other codes in their repertoire were used either as stand-alone codes or code-switches.

This research involved all the 213 Dayak Bidayuh undergraduates in MARA University of Technology, Sarawak located in Samarahan for the academic year beginning 2005-8. They had undergone at least eleven years of formal education, which comprised six years of primary and at least five years of secondary education. A number of them also completed Sixth Form and the Matriculation Programme offered by Malaysian Education Ministry. It was not the aim of this study to investigate language used between gender because a pilot study showed that there were minimal differences.

4.4.1 Proficiency in English and Bahasa Melayu

The researcher first investigated the language proficiency level in the two languages taught in school namely English and Bahasa Melayu as this could influence their reasons when making code choices with their family members at home and with other Bidayuh undergraduates in the university. This was done through the Speaking Assessment Test at UiTM involving the various Basic English Language Proficiency codes, BEL 100, 200, 250, 350, and 430 in Semester 1, July 2006.

The grades obtained shows that all the 213 undergraduates passed the English Speaking tests with at least Grade C (average speakers). However, 15 of them were high achievers who scored grade A (excellent speakers). The rest obtained Grade B (good speakers). The other code, namely Bahasa Melayu shows that all the 213 Dayak Bidayuh undergraduates obtained at least Credit 6 (average) and above in *Sijil Pelajaran Malaysia* (SPM), which is equivalent to the GCE Ordinary Level conducted by the Cambridge Examination Syndicate.

4.4.2 Rational for using Dayak Bidayuh undergraduates as respondents

The rationale for including all the 213 Bidayuh undergraduates at UiTM Samarahan was to give an objective perspective of language choice patterns used by the Dayak Bidayuh undergraduates at home and in the university. The

Bidayuh undergraduates were chosen because they represented the younger generation of modern educated Dayak Bidayuhs who had become multilingual.

4.5 Profile of respondents

There were 123 urban Bidayuh undergraduates compared to 90 rural Bidayuh undergraduates in this study. Of the three dialect groups, Bau-Jagoi had the most with 77 undergraduates, followed by 72 Bukar-Sadong undergraduates and 64 Biatah undergraduates (see Table 4.1).

Table 4.1
Population size of Bidayuh undergraduates used in this study

Bau-Jagoi n=77			Bukar-Sadong n=72			Biatah n=64		
Rural: n=90; male: 40; female:50								
male	female	total	male	female	total	Male	female	total
13	19	32	13	16	29	14	15	29
Urban: n=123: male=53; female=70								
male	female	total	male	female	total	Male	female	total
20	25	45	17	26	43	16	19	35

4.5.1 Bidayuh undergraduates according to gender and age

A total of 160 or about 75.1% of the Dayak Bidayuh undergraduates were in the 18-21 years age groups and 53 or about 24.9% in the 22-25 years age groups respectively. There were more female than male Bidayuh undergraduates. Out of the 213 respondents 33 or about 15.5% were Bau-Jagoi males and 44 or about 20.7% females; 30 or about 14.08% Bukar-Sadong males and 42 or about

19.7% females; 31 or about 14.56% were Biatah males and 33 or about 25.4% females. In total there were 94 or 44.13% males and 119 or about 55.87% females (see Table 4.2).

Table 4.2
Bidayuh undergraduates according to gender and age

| Age	Total	Bau-Jagoi n=77		Bukar-Sadong n=72		Biatah n=64	
		Male	Female	Male	Female	Male	Female
18-21 years	*(75.1%)*	22	35	17	36	22	28
22-25 years	*(24.9 %)*	11	9	13	6	9	5
Total		**33**	**44**	**30**	**42**	**31**	**33**

4.5.2   Level of study

There were two levels of study at UiTM Samarahan, namely: diploma and degree programmes. The larger intake each semester is for the diploma courses. UiTM Samarahan offers four degree and 24 diploma courses. The Bidayuh students in this study were doing both diploma and degree courses. A total of 193 or about 90.6% of the Bidayuh undergraduates were pursuing various diploma programmes while the remaining 20 or 9.4% were taking degree courses (see Figure 4.1).
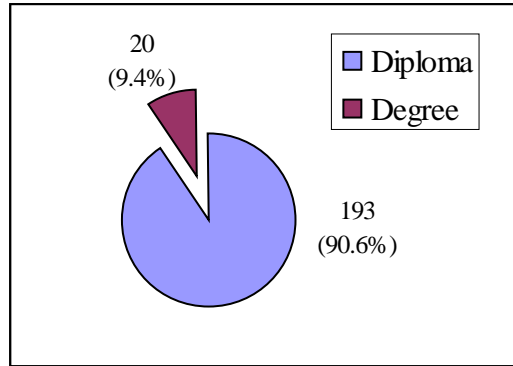
Figure 4.1
Level of study among the Bidayuh undergraduates at UiTM

4.5.3   Medium of instruction

The respondents completed formal education in government and government aided primary and secondary schools before getting accepted into UiTM. The data obtained shows that the medium of instruction in school explained their proficiency levels in the various codes. For primary education 18 or about 8.45% of the respondents attended Chinese primary schools while the rest went to Malay medium schools. However, all the 213 respondents attended Malay medium secondary schools with English taught as second language (ESL). The medium of instruction in UiTM is English (see Figure 4.2).
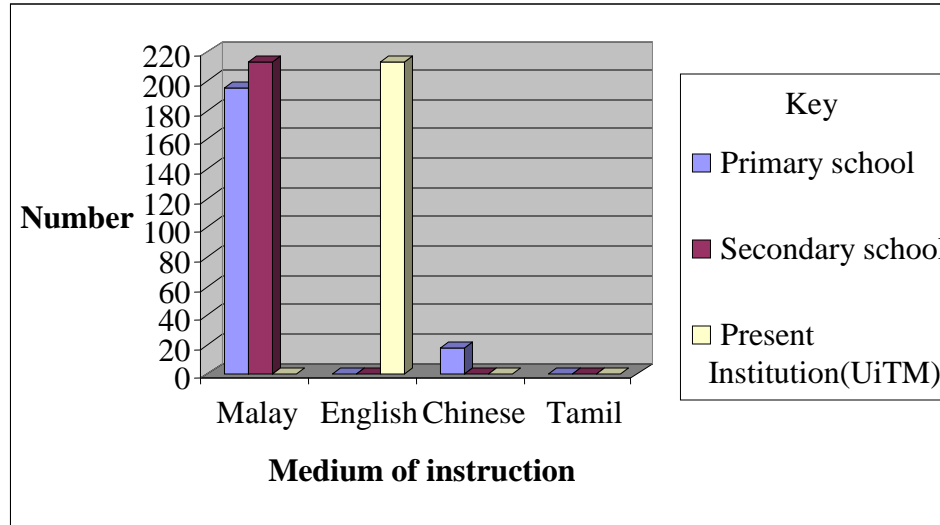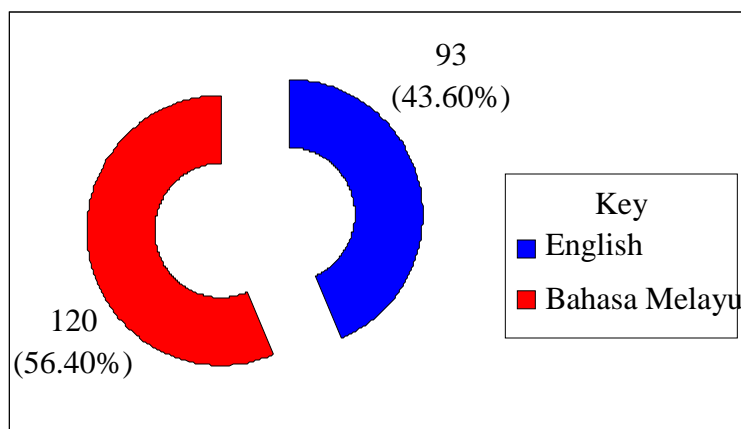
Figure 4.2
Medium of instruction in school and in UiTM

4.5.4 Medium of instruction when learning Mathematics and Science

In 2003, the Malaysian Education System reintroduced the teaching of Science and Mathematics in English beginning with Year One, Form One and Lower Sixth. Quite a number of the respondents were affected by this policy. There were 120 or 56.33% of the respondents who studied both subjects in Bahasa Melayu as compared to 93 or 43.67% who studied Mathematics and Science in English when they were in secondary schools (see Figure 4.3). The reason for the separate result is because the respondents sat for Mathematics and Science in Bahasa Melayu for the Sijil Pelajaran Malaysia (SPM) examination before 2006. During 2006, both subjects were in English.
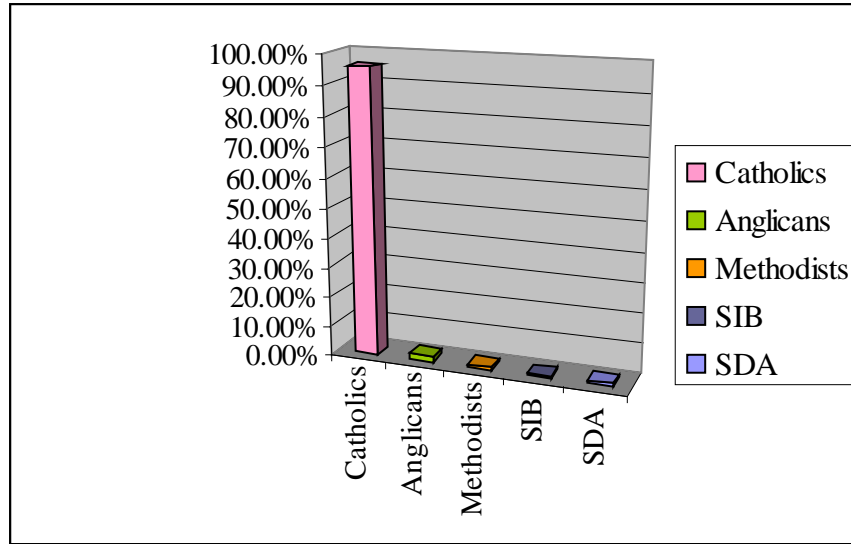
Figure 4.3
Medium of instruction when learning Mathematics and Science

4.5.5   Religion

All the 213 Bidayuh undergraduates in this study were Christians. However, there were two Muslim undergraduates of mixed parentage at the time of this study. They were not included because they were categorised as Malays on their national registration cards. About 100% or 213 of the Bidayuh undergraduates belonged to several denominations. The majority, 204 or about 95.8% were Catholics, four or about 1.9% were Anglicans, two or about 0.94% were Methodists, two or about 0.94% were Seventh Day Adventists (SDA) and one or about 0.47% were Borneo Evangelical Church (SIB) (see Figure 4.4). The information is necessary because there are two Christian associations in UiTM. One association is for the Catholic undergraduates, while the other association is for Christians from other churches.

Figure 4.4
Religious faiths of Bidayuh undergraduates

4.6   Instrumentation

This study made use of the triangulation method to give more significance to the data collected. The instruments used comprised of questionnaire, audio-recordings, observation and open-ended interviews.

4.6.1   Questionnaire

The questionnaire was designed with reference to earlier studies on language interaction which included code choices among members in minority ethnic communities such as Gal's (1999) study on Hungarian–German bilingualism in the town of Oberwart, David's (1996) study of language shift among the Sindhis in Malaysia, Sankar's (2004) on language maintenance and shift among

the Tamil Iyers in Malaysia and Roksana Bibi Abdullah's (2001) on language choice and shift among the Malays in Singapore.

All the 55 items in the questionnaire for this study consisted of multiple–choice questions (see Appendix E). There were no open–ended questions because a pilot study conducted earlier showed that respondents did not like to answer open-ended questions and left most of them blank. Some of the respondents indicated that the open-ended questions were not popular as it required them to spend a lot of time writing the answers.

The questionnaires were distributed according to course programmes at UiTM Samarahan. Using the name list of each programme, the researcher identified the Bidayuh undergraduates. Two undergraduates assisted in the distribution and ensured that the questionnaires were completed before collection. The respondents were given two weeks to mark their choices in the questionnaire and upon returning the completed questionnaires received stationeries and second hand items such as novels, magazines and comics as gifts. All the completed 213 questionnaires were returned by the Dayak Bidayuh undergraduates after two weeks. The immediate feedback given by the respondents was that the questionnaire was lengthy but it did not take them a long time to complete it.

4.6.1.1 Details of the questionnaire

Questions 1-7 of the questionnaire provided the background information of the respondents such as place of origin and dialectal groups which were the two main variables in this study. The questionnaire also provided information on gender, religious faiths of the Bidayuh undergraduates besides current level of study and medium of instruction in primary and secondary school before joining UiTM. Questions 8 and 9 examined language first learnt and language proficiency in Bidayuh and other languages for speaking, writing and reading. Question 10 asked if the respondents were using Bidayuh with other codes and Question 11 questioned the language used to talk to oneself and the language they most frequently used with fellow undergraduates. Questions 12 to 14 asked about the attitudes of the Bidayuhs regarding the role of their own mother tongue and other languages. Question 12 asked if speaking Bidayuh gave them a Bidayuh identity; Question 13 asked the respondents if it was important to preserve the Bidayuh dialects while Question 14 asked which language the respondents found most useful.

4.6.1.2 Questions in each domain and sub-domain

There were 40 questions pertaining to language choice in the home and the university domains. Below is a description of questions in each domain.

4.6.1.2.1   Home domain

The home domain was chosen because in this study of language choice it was useful to find out which codes the Dayak Bidayuh undergraduates were using when communicating with different generation of family members. Questions 15 to 19 inquired about language choice when talking to grandparents, parents, siblings, uncles and aunts and cousins. Questions 20 to 22 were to determine their language preference when writing letters to their parents, siblings and cousins. Questions 23 and 24 were to determine language choice of the Bidayuh undergraduates when talking to Bidayuhs from the same and other dialectal groups who come to visit them in their homes. The patterns of language choice used by the rural and urban Dayak Bidayuhs undergraduates of both gender when communicating with family members at home were investigated.

4.6.1.2.2   University domain

There were altogether 30 questions in the questionnaire for the university domain. These involved investigation of language choice in intra and across dialect group interactions. The questions were related to the sub-domains of friendship, studies and religion.

4.6.1.2.2.1   Sub-domain of Friendship

First, the percentage of Dayak Bidayuh undergraduates who had social networking with other Bidayuhs in the university was determined by Question 25. Questions 26 to 27 inquired about the language choice when talking to Bidayuhs of the same and different dialectal groups. Questions 28 to 31 dealt with the language choice when using electronic communication channels such as *voice-mails* and *SMS* (Short Messaging System). Questions 32 to 47 were designed to determine the language choice of the Dayak Bidayuh undergraduates when requesting favour, showing power, making other Bidayuhs feel comfortable, winning respect, greeting, closing a conversation, telling secrets, teasing and scolding.

4.6.1.2.2.2   Sub-domain of religion

In UiTM Samarahan, there is a Christian society, called Christian Undergraduates Society where the Bidayuh undergraduates interact during their weekly meetings on Thursday evenings and other outdoor activities. Questions 48-52 were designed to investigate the language choice of the Dayak Bidayuh undergraduates when praying aloud and silently, buying religious books, singing religious songs, attending religious lessons and conducting prayer meetings in the university.

4.6.1.2.2.3   Sub-domain of Studies

Questions 53-55 dealt with the language used when discussing in study groups, when seeking clarification from Bidayuh lecturers and when counting.

4.6.2   Audio Recordings

Audio recordings were made using Sony Cassette–corder TCM-150, Storm MPQT1303-512 MP3 and MP4 players. Permission was obtained from the Bidayuh undergraduates before the recording was done. The researcher is a lecturer in UiTM Samarahan and the Bidayuh undergraduates cooperated very well. The duration of recordings made in both the home and university domains is shown in Table 4.3 below.

Table 4.3
Duration of audio recordings and number of transcriptions

Domain	Total number of hours	Total number of transcriptions
Home	8	24
University: Intra groups	4	9
Inter groups	7	23
TOTAL	**19**	**56**

In the home domain, recordings were made to identify code choices of the Dayak Bidayuh respondents when speaking to grandparents, parents, and siblings. The recordings were done by the researcher who accompanied the respondents back to their homes on numerous occasions during the study period of three years. This included visiting them during Gawai Dayak festival ,

birthday parties, Christmas celebrations and ordinary home visits which totaled up to 36 visits altogether.

The researcher was introduced as a lecturer and friend to family members. The fact that the researcher was accompanied by his Dayak Bidayuh wife when making these home visits, made the family members felt more at ease and welcoming. Recordings at home were made in the homes of 24 Dayak Bidayuh undergraduates from the three main dialectal groups. This comprised of the homes of 12 rural and 12 urban Bidayuh undergraduates.

In the university, recordings of natural occurring conversations involving Bidayuh undergraduates of the three main dialectal groups were made by the respondents themselves as the researcher did not want to affect natural language selection. The researcher told the respondents to taperecord their conversations with other Bidayuh undergraduates for a research purpose but did not tell them the aim of the study.

There were 23 taperecorded conversations across dialect group interactions compared to 9 in intra group conversations because the respondents stated that their circle of Bidayuh friends did not limit to their own dialect groups only. A total of 28 Bidayuh undergraduates were audio recorded in intra dialect group interactions in the university. This is in sharp contrast to a total of 66 Bidayuh undergraduates who were audio recorded across dialect group interactions. The reason for this difference is because it was very easy to find Bidayuh having

conversations across dialect groups, but difficult to propose exact reasons for specific examples of different codes used as they kept on using different codes. In order to establish a pattern of code choice especially to determine the codes that have been accepted as the common choices of the urban Dayak Bidayuh undergraduates, it was necessary to record on several occasions the conversations of the 66 urban Bidayuh undergraduates.

The respondents recorded their conversations in the canteens and Youth Floor where they gathered while waiting for lectures.

4.6.3   Observation

4.6.3.1 Rationale for using observational data

The researcher obtained permission from the respondents and their family members before observing them. This was done by approaching them personally and seeking their verbal approval before carrying out the observation. The duration of the observation in both the home and university domains is shown in Table 4.4 below:

Table 4.4
Duration of observation

Domain	Total number of hours
Home	10
University: Intra Across	10 20
TOTAL	**40**

There were several reasons why observational data was included. By directly observing the Dayak Bidayuh undergraduates during interactions, the researcher was able to understand the context of situation for language used and reasons for their code selection with different interlocutors.

First hand observation allowed the researcher to be open and discovery oriented. A strength of using observational fieldwork in this study was that the researcher who is not a Dayak Bidayuh has the opportunity to see things that may have routinely escaped awareness among the respondents. According to Patton (1990:204) because the linguistic codes used were so routine, respondents in those routines of interactions may take them so much for granted that they ceased to be aware of important nuances that were apparent only to the researcher observer who was not fully immersed in those routines.

The researcher learnt about things which the respondents although initially unwilling to talk about during the interviews conceded. For instance reluctant to admit openly that using more English actually showed to people how educated they were. However, when cross-validating with the respondents his own perception, the researcher was able to present a more comprehensive view of language choice patterns among the Dayak Bidayuh undergraduates.

Finally, getting close to the respondents through first hand experience permitted the researcher to access personal knowledge and direct experience to aid in understanding and interpreting the reasons for language choice. 'After all,

reflection and retrospection are important parts of field research' (Patton 1990:205).

4.6.3.2 Observing as a Participant and Spectator

The extent of participation in observation in this study varied from complete immersion in the setting as full participant to complete separation as a spectator during the three years of this study. In some cases the researcher began as an onlooker and gradually became a participant as the interaction progressed. This was most often done in the university domain when the lecturer cum researcher saw a group of Bidayuh undergraduates having conversations in the canteens and later joined them. The researcher is able to speak Bidayuh, Sarawak Malay, Bahasa Melayu and English and the respondents did not have to accommodate to him.

In doing participant observation for this study, the researcher downplayed his role as a lecturer and researcher by bringing his Bidayuh wife and children to campus in the evenings and when visiting the Dayak Bidayuh undergraduates at home. Although the respondents knew they were being observed, they knew it was for research and did know what was being observed both at home and in the university.

In the home domain the researcher often began as a complete participant in order to show politeness. Later, the researcher began to withdraw from the

family conversations pretending to mind to his small children so as not to affect language choice of the Dayak Bidayuh undergraduates with their family members. This was done during the 2005-2007 Gawai Dayak, Christmas and Easter celebrations and other home visits where family members gathered. In the participant observation in the university the researcher shared as intimately as possible in the initial conversations of the Dayak Bidayuh undergraduates and gradually became a mere listener and observer. A complete list of the observation is given in Appendix I.

4.6.4 Interviews

Interviews permitted the researcher to go beyond external behaviour to explore the internal states of persons who have been observed (Paton, 1990: 206). The purpose of using open ended interview in this study was to replay the audio recordings of the conversations and the respondents were asked to explain their reasons for code choice with family members at home and peers in intra and across dialect groups in the university. A total of 24 Bidayuh undergraduates were interviewed for their conversations at home and in intra dialect group. However, a total of 35 Bidayuh undergraduates were interviewed for their conversations across dialect groups in order to propose exact reasons for language choice.

4.7   Data Analysis

4.7.1   Quantitative Analysis

First, the data obtained from the questionnaire completed by the 213 respondents were analysed in order to establish an overview of respondents' background, language proficiencies, beliefs and language choice trends in the various domains and sub-domains at home and in campus. Frequency counts and percentages were used to describe the Dayak Bidayuh undergraduates' code selection in each of the domain. The researcher could do the simple frequency counts and calculated the percentages manually without having to use SPSS .

4.7.2   Qualitative Analysis

It was significant for the micro analysis to find out what language was used by the Dayak Bidayuh undergraduates when speaking to family at home and with other Bidayuh undergraduates in the university The qualitative analysis also aimed to explain the reasons for such code choices The micro analysis was made by examining the patterns of language used in the utterances of the Dayak Bidayuh undergraduates.

According to *A Dictionary of Sociolinguistics* (Swann, et al. 2004: 231) an utterance refers to a stretch of spoken language, making no assumptions about any linguistic properties or structure. An utterance may consists of sentences using stand-alone codes and sentences with code-switches. The number of

sentences using stand-alone codes and code-switching of various codes were identified and counted. The percentage of the sentences using each pattern was then calculated. The aim was to determine the main pattern used by the Dayak Bidayuh undergraduates when speaking to family members at home and with Bidayuh undergraduates in the university. Each utterance may consist of different sentences and was analysed as follows:-.

Example 4.1
Sentences using different codes in an utterance

UJM: *Hii everybody, it's me again.* (**Eng**) Dapat tidor sik kitak urang malam tek? (**SM**). Bising nar sidak ia(**SM**) Apa polah sidak nya dalam *hostel* ia sampe pukul duak pagi*?* (**SM+Eng**) Bising gilak sampe ngaco urang nak tidor. (**SM**) *Warden* pun sik ada juak**.** (**SM+Eng**) Mun udah nak ujung ujung kedak tok eboh arap sidak ia maok molah **ronda** agik. (**SM+BM**)   *(Transcription 1)*
(…. Could you sleep last night? They were so noisy. What were they doing in the hostel until two a.m? They're disturbing others. There was no warden around. Now it's almost the end of the semester and don't expect them to go around checking.)

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*Key: **Eng:** Stand-alone English; **SM-** Stand-alone Sarawak Malay; **SM+Eng** : Codeswitching more Sarawak Malay less English; **SM+ BM**- Code-switching more Sarawak Malay less Bahasa Melayu*

The utterance of the urban Bau-Jagoi male undergraduate above consists of:-

     i. Stand-alone Sarawak Malay (3 sentences)

    ii. More Sarawak Malay less English (2 sentences)

  iii. More Sarawak Malay less Bahasa Melayu (1 sentence)

  iv. Stand-alone English (1 sentence)

In Example 4.1 the utterance consists of seven sentences. A stand alone Sarawak Malay sentence is a sentence that has all its lexical items in Sarawak Malay. A sentence which has more Sarawak Malay and less English is a code-switching sentence that has more lexical items in Sarawak Malay and less in

English. Similarly, a sentence which has more Sarawak Malay and less Bahasa Melayu is a code-switching sentence that has more lexical items in Sarawak Malay and less in Bahasa Melayu. In order to determine which is the more dominant code in a code-switching sentence the number of words and lexical items using the different codes are identified and counted.

This study differs from Myers Scotton's (1993) Matrix Language Frame Model where the Matrix Language (ML) and Embedded Language (EL) are analysed according to a frequency based criterion of grammar i.e. ML morphemes must be well formed according to the ML grammar and the EL morphemes must be well formed according to EL grammar. This study does not focus on grammar but on number of words and lexical items because of the many languages and dialects involved namely Bidayuh (Bukar-Sadong, Biatah and Bau-Jagoi dialects); Sarawak Malay dialect, Bahasa Melayu and English.

The sentences in all the utterances in the 56 conversations were then counted and totaled to determine the main code or pattern used by the rural and urban Bidayuh undergraduates. The rationale for counting the number of sentences using the various codes was to show the language or language pattern most preferred by the Dayak Bidayuh undergraduates when conversing with family members at home and with other Bidayuh undergraduates the in university. Secondly, it offered a better understanding of code choice in terms of both Bidayuh individuals and the dialect group speech repertoire. This also helped to determine to what extent the rural and urban Bidayuhs undergraduates were

using Bidayuh, Sarawak Malay, Bahasa Melayu and English at home and in the university.

4.8 Analysing reasons for language choice

The reasons for language choice were collected through open-ended interviews conducted with the interlocutors and field notes from observations. Such interviews were made by replaying the recorded conversations and seeking their explanations for reasons specific codes being used with different interlocutors at home and in the university.

The respondents who were interviewed (see 4.6.4) helped to explain the reasons for language choice in the two domains under study. The researcher also obtained permission from the interviewees before citing their voices in the qualitative analysis When analysing the reasons for code choice, Giles and Smith's (1979) Giles, Coupland and Coupland's (1991) Speech Accommodation Theory and Gumperz's (1982) functions of code-switching were used as the basis for verifying the code choices in the utterances.

4.8 Conclusion

A combined quantitative and qualitative analysis was conducted in this study to determine language choice trends among the Bidayuh undergraduates at home and in the university. The data was obtained from questionnaires, recordings of

conversations conducted both in the home and in the university domains. Interviews and observation were carried out to validate the reasons for the language choice patterns. The questionnaires provided a macro-perspective of language used by the 213 Dayak Bidayuh undergraduates while the audio recordings and recordings provided the micro perspective of individual language choice among the rural and urban Dayak Bidayuh undergraduates belonging to the Bau-Jagoi, Bukar-Sadong and Biatah dialectal groups. We now move on to Chapter 5 which discusses the survey results.