Bilingualism/ Second Language Research and the Assessment of Oral Proficiency in Minority Bilingual Children

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Abstract

This paper discusses some of the challenges that researchers working in the fields of bilingualism and second language acquisition and in the field of language testing face in developing comparable and culturally and cognitively appropriate data collection and language assessment tools for bilingual children from rural minority language communities with low levels of literacy. These challenges include defining language proficiency in a bilingual continuum, avoiding cultural biases and attaining cross-linguistic validity.

Using evidence from oral proficiency and aural comprehension tasks developed for bilingualism and SLA research and for the assessment of language proficiency in Quechua-Spanish and Aymara-Spanish bilingual students in the public schools of Peru, I will illustrate recent attempts to develop appropriate tests to probe into bilingual students’ linguistic competence.
Bilingualism/Second Language Acquisition Research and the Assessment of Minority Children.¹

One of the major challenges that researchers in the field of bilingual and second language acquisition face is the development of data collection tools that are appropriate to assess linguistic knowledge in bilingual children from rural minority language communities who have low levels of literacy. The different levels of language proficiency among bilingual minority children, the predominance of oral traditions over the written text in many of these communities and differences in oral text structures that challenge cross-linguistic validity are some of the difficulties that researchers face. Developing data collection tools appropriate to measure the children’s level of proficiency that, at the same time, allow for comparisons with results from bilingual and monolingual children living in other contexts constitutes a major challenge. Educators and linguists in charge of developing language assessment instruments for bilingual minority children in rural multilingual context also face these difficulties.

In this paper, I attempt to illustrate how some of the approaches to oral data collection developed in the fields of bilingualism and second language acquisition research and to oral proficiency assessment in the field of language testing can converge and be beneficial to academic communities preoccupied with language assessment among bilingual minority groups. I will focus on what I consider are three of the major challenges to the development of data collection tools and language assessment instruments for indigenous Quechua-Spanish and Aymara-Spanish bilingual children in Peru. These are: a) the definition of proficiency in a bilingual continuum, b) the risk of not attaining cultural appropriateness in the design of language assessment tasks and c) the construction of cross-linguistic valid assessment tools in a multilingual context. I will present examples from data collection tools developed for two bilingual acquisition research projects that I conducted among Quechua-Spanish communities
and examples of oral proficiency assessment tools designed for a communicative-oriented pilot test project among Quechua-Spanish and Aymara-Spanish bilingual children. The latter was conducted in 1999 by the Unidad de Medición de Calidad (Quality Measurement Unit) at Peru’s Ministry of Education and GRADE, a non-governmental research organization in Peru dedicated to general issues of societal development including education. I participated in it as a consultant for GRADE. The examples presented in this paper come mostly from oral production and comprehension tasks since these were introduced for the first time as language assessment tools for indigenous communities at the national level in 1999, although the pilot test also included reading and writing tasks.

Before I proceed to present how these examples illustrate possible solutions to the aforementioned challenges, I would like to provide a brief grammatical description of the three languages involved. Spanish is an Indoeuropean language with rich flexive morphology that does not mark case morphologically but with independent prepositions. Quechua and Aymara are two Amerindian languages from the Quechua-Aru family. Both languages have very rich morphology and, unlike Spanish, mark case overtly and lack phonologically independent prepositions. They are characterized by their strong suffixal nature. The canonical word order in Quechua and Aymara is SOV (Cerrón-Palomino 1989) and SVO in Spanish (Contreras 1976).

The three languages rely on word order alterations to convey differences in the informational structure of a sentence. Spanish intonational patterns vary along with informational structure (Zubizarreta 1998), whereas Quechua and Aymara use suffixes to mark new and old information. Additionally, the two languages have a rich morphological paradigm of evidential markers and affixes that convey aspectual meanings. In Spanish not all of these categories are morphologically marked, if they are grammaticalized at all. At the phonological level, Aymara
and some varieties of Quechua differ from Spanish in that they have aspirated and glottal stops (ejectives) and have a three-vowel system (Cerrón-Palomino 1989). Spanish lacks phonological differences based on aspiration and glotalization and has a five-vowel underlying system. Despite these differences, the three languages coincide in that they are pro-drop languages with a rich paradigm of subject agreement morphology.

The paper is organized as follows. In the first and second sections, I present some background on the approaches to data collection methods used in bilingualism/ SLA research and in the field of language testing among minority communities. Furthermore, I examine language testing practices traditionally used in Peru to assess the language abilities among Quechua and Aymara indigenous communities. In the third section, I present some ideas on how to use general socio-linguistic questionnaires to collect data that are helpful in identifying levels of language exposure, frequency and preference of use, as complementary measures of proficiency in communities characterized by differences across individuals in the levels of proficiency in each language. In the fourth section, I present three examples of oral data collection and oral proficiency assessment tools that incorporate the oral tradition of the indigenous populations and elements of the children’s environment and therefore are culturally appropriate. The first one is a classroom-based questionnaire that allows teachers to assess the language proficiency of their students in the classroom. The second example is a picture-based storytelling task that makes use of appropriate cultural references in the children’s environment, and the third one is a picture-based description task used in a pilot test developed for national testing in Peru. Finally in the fifth section, I illustrate the issue of cross-linguistic validity in the construction of aural comprehension tasks in Quechua, Aymara and Spanish.
In this section, I review some of the most salient views on data collection in the fields of bilingual and second language acquisition as well as some of the views on language assessment that are prevalent in the field of bilingual education for minorities. I will relate these perspectives to the views that have characterized the assessment of Quechua-Spanish and Aymara-Spanish bilingualism in the rural indigenous communities in Peru.

In research on early and simultaneous bilingualism, data collection techniques used to measure linguistic knowledge in bilingual children have primarily focused on obtaining oral production data in both languages (Meisel 1986, Genesee 1989, Paradis and Genesee 1997, Deuchar and Quay 2000) and on code-mixing in early bilinguals (Paradis, Nicoladis, Genesee 2000). The data is coded and quantified in order to find regularities and systematicity in production. Experimental techniques have not been absent from research on early bilingual acquisition, but they have been mostly oriented towards eliciting either oral production in specific areas of linguistic knowledge such as word recognition (Grosjean 1998) or processing strategies in bilinguals with and without language impairments (Paradis 1993). Thus, the assessment of linguistic knowledge in bilingual children has been mostly based on oral production and comprehension data. The prevalence of aural/oral data collection techniques over written ones is understandable since at the early stages of acquisition literacy is not yet completely developed. This view is not unlike that of researchers studying linguistic knowledge among communities with low levels of literacy. Indeed, indigenous communities such as the Quechua and Aymara-speaking communities have strong oral traditions and have been up until the present characterized by low levels of literacy (Zavala 2002). This characteristic favors assessment techniques that focus on oral production and comprehension rather than on writing and reading
skills, as these are more appropriate given the lower levels of literacy that characterize some of these indigenous communities.

A different situation has characterized data collection in second language acquisition research. In this field two approaches to data collection coexist. One is an approach that favors experimental data collection methods and techniques (White and Genesee 1996, Epstein, Flynn and Martohardjono 1996, Duffield and White 1999, White 2000) and relies on acceptability judgments, elicited imitation tasks and truth-value judgments, among others (Mackey and Gass 2005). A different tradition focuses on naturalistic data (Mackey and Gass 2005) and techniques that elicit oral production such as spontaneous narrations, picture-based descriptions and interaction tasks. These data collection techniques tend to incorporate, in addition to linguistic competence, communicative and pragmatic competence (Bachman 1990). The two perspectives are rooted in different views of what is being measured. The perception that oral production might reflect knowledge of language use but not necessarily linguistic competence has guarded some researchers in the first tradition against an extreme reliance on spontaneous oral production data and has driven the need for the development of experimental techniques that exert maximum control on the conditions for oral production (Munich, Flynn and Martohardjiono 1994). Nevertheless, spontaneous and guided oral production data have proven to be valuable in analyzing different aspects of second language acquisition such as ultimate attainment and first language loss. Recent proposals on ultimate attainment and first language loss in SLA have benefited from the study of guided narrations as well as from data obtained through more controlled experimental data (Sorace 2000, Montrul 2002) and must not be excluded from research on linguistic knowledge in bilinguals. Furthermore, the establishment of oral proficiency assessment tools for second or foreign languages such as the Oral Proficiency
Interview (Alonso 1997) has also had a strong impact on current views of what language abilities are measured for educational purposes.

In the case of second language acquisition research among Quechua and Aymara-speaking communities, experimental research techniques can be used to study the acquisition of Spanish as a second language, and in fact they have been used for comprehension (Kalt 2000); but their use has been constrained by the development of literacy and academic use of language in the communities studied. As in other traditional communities such as the Maori community (Marshall and Peters 1989), oral production data collection techniques that incorporate narrations or guided conversations have proven more effective (Escobar 1990, Sánchez 2003, 2004). This type of assessment tools has the advantage of making use of the communities’ practices and traditions.

Even in non-traditional communities, oral proficiency measures are considered desirable measures of bilingual assessment. Shohamy (2000) reviewed the relationship between SLA research and language testing. After surveying the literature on second language acquisition and language testing available at the time, Shohamy (2000) concludes that the field of language testing would benefit from, among other approaches, expanding the context of testing beyond psychometrics and addressing educational issues.

From this brief overview, it becomes apparent that data collection and language assessment among bilinguals have benefited from methods and techniques that do not rely exclusively on reading and writing tasks and that incorporate in addition to linguistic competence, oral production in broader communicative contexts as a measure of bilingual knowledge.

Further confirmation comes from the field of bilingual education for minority populations in the US. Researchers such as Valdés and Figueroa (1994) have strongly recommended moving away
from standardized written tests and instead emphasizing the assessment of oral skills in minority students. In their comprehensive proposal for language assessment of bilingual minority children, Valdés and Figueroa (1994) identify three dominant perspectives in the assessment of bilingual children in the US. The first one is viewing the bilingual as a native speaker of two languages. The second one is viewing the bilingual as a native speaker of one of the languages and a learner of the other. The third position is viewing the bilingual as a native speaker of neither of the two languages. Neither the first nor the third perspectives have characterized language assessment of indigenous Quechua and Aymara-speaking children living in rural communities in Peru. These communities were mostly monolingual until the second half of the nineteenth century. It was only after major agrarian and educational reforms radically changed the social conditions of indigenous communities in the rural areas of the country that bilingualism in indigenous languages and Spanish, the dominant language in the country, emerged in rural areas (Steckbauer 2000). This is evidenced in the discussions on education and monolingualism in Quechua and Aymara that preoccupied academics in the fields of education, linguistics and anthropology in the sixties (Casa de la Cultura 1966). Up to present times, extended bilingualism has not been a characteristic associated to rural indigenous communities. Paradoxically, the expansion of the educational system to all rural areas of the country in the second half of the nineteenth century was based on Spanish-only educational policies for all indigenous communities (Pozzi, Escot 1972), with the exception of some experimental bilingual education programs (Zúñiga and Lozada 1985, Hornberger 1987, Davis 1995, Steckbauer 2000). Early studies on the contact varieties of Spanish spoken in rural areas inaugurated the view that the Spanish spoken by rural indigenous populations was not an “incorrect” version of Spanish or a creolized variety of Spanish (Cerrón-Palomino 1972) but an *interlect* ‘interlect’, a term
introduced by Escobar (1978) that reflects the developments in the field of applied linguistics at the time (cf. Selinker 1972). While the view that indigenous bilingual communities acquire Spanish as a second language still holds for most of the rural areas of the Southern Andes of Peru, there are other areas in which second-generations of bilinguals are emerging (Sánchez 2003) and rapid language shift from Quechua or Aymara into Spanish results in monolinguism in Spanish (Cerrón-Palomino 1989). This reality further presses researchers and testers to use assessment tools that are capable of dealing with the complexity of the socio-linguistic composition of the indigenous populations without oversimplify the language contact context. In this type of language contact situations, one of the risks that bilingual assessment faces is assuming a standard of indistinguishability from monolinguals to assess bilinguals (Valdés and Figueroa 1994). This trend has been evidenced in the US by the application of traditional analytical discrete point standardized tests that are based on the notion that language is “learned by successive progression through skills and broken down into linguistic components” (p. 44). These tests focus on reading and writing skills, and the results obtained by bilingual children in them are frequently compared to the results obtained by monolingual children. Until recently, the application of a similar language assessment policy in Peru had devastating effects in the evaluation of the academic progress of indigenous populations. Bilingual children had dismally lower scores on standardized language arts tests than children from Spanish monolingual communities as attested by the differential results in academic achievement between rural and urban populations (INEI 2005).² Valdés and Figueroa (1994) strongly recommend that standardized tests constructed for monolingual populations not be used to assess bilingual populations for any aspect of decision-making processes. They strongly oppose the psychometric tradition of measuring discrete aspects
of language knowledge and propose to focus on the already existing oral skills of children who are circumstantial bilinguals.

In addition to moving towards proficiency-based tests, Valdés and Figueroa suggest that a cautious approach be used in bilingual assessments for the practice of the self-rating of language abilities in the two languages by bilinguals. Given the limited exposure that bilinguals have to different registers in the minority language, Valdés and Figueroa consider sociolinguistic questionnaires informative tools only when combined with other measures. They provide “baseline information about the role and function that two languages have played and play in a bilingual’s life.” (p. 53). In the next section, I will present a socio-linguistic questionnaire used in a research project among Quechua-speaking communities in Peru that constituted an attempt to obtain data on the patterns of language use and language preference among bilingual indigenous communities.

The assessment of indigenous bilingual children in Peru

Until the year 2000, nation or region-wide tests in Peru were written tests constructed and administered in Spanish to all children, including those for whom Spanish is a second language. As mentioned above, this practice has had disastrous consequences for bilingual children from indigenous communities because of the way in which tests results have been interpreted. Although the Instituto Nacional de Estadística (INEI 2005) in Peru identifies a wide range of socio-economic factors as responsible for the low levels of achievement among children from indigenous communities when compared to the rest of the country (such as the children’s participation in farming activities and the fact that most of them live in rural areas), INEI also found a higher percentage in school delay among children who are speakers of an indigenous language, when compared to Spanish-speaking children (see Table 1). This is not surprising if
tests written in Spanish and originally formulated for L1 speakers of that language are the tools used to assess their progress.

INSERT TABLE 1 HERE

In the last decades, two factors contributed to the continuation of Spanish-only testing practices among bilingual children: first, the traditional approach to language assessment that focuses on obtaining nation-wide scores on language abilities based on formal knowledge of grammatical concepts rather than on the assessment of acquired competencies and, secondly, the perception that bilingual programs among indigenous communities were, since the second half of the XX century, experimental in nature and that the children in such programs would eventually be mainstreamed into Spanish-only secondary education programs (Zúñiga, Sánchez and Zacharías 2000).³

It has only recently been the case that institutions in charge of evaluating communicative abilities in children throughout the nation (such as the Unidad de Medición de Calidad Educativa (Educational Quality Measurement Unit) at Peru’s Ministry of Education with the support of GRADE (Grupo de Análisis del Desarrollo), an educational consulting agency, have begun to develop tests to assess the oral proficiency of bilingual children from minority communities. The initiative to assess language proficiency among indigenous bilingual children was put forth by the UMC and GRADE as part of the CRECER 2000 project.⁴ This change was brought about by a new approach to the teaching of oral and written communicative skills in elementary schools in Latin America (Condemarín and Molina 1999, Jolibert 1999) and in particular to the teaching of second languages at the elementary school level (Lopez and Jung 1988, Davis 1997, Ministerio de Educación, Cultura y Deportes 1997). This new approach supports the view that children acquire communicative competencies gradually and that language assessment should measure
acquisition of such competencies rather than metalinguistic knowledge. At the same time, the support for bilingual intercultural programs in the late 90’s experienced some resurgence (Uccelli 1998), and the need to evaluate linguistic development in native indigenous languages (such as Quechua and Aymara and in Spanish, the dominant language, among students participating in bilingual programs) was recognized by some sectors of the educational authorities. One major factor, however, constrains the possibility of implementing oral bilingual assessment on a nation-wide basis: the scarcity of resources in the educational sector. As we will see in the next sections of the paper, this constraint is at the basis of some of the choices that must be made in assessing the communicative skills of indigenous bilingual children.

Defining proficiency in a bilingual continuum

In the case of bilingual and SLA research in communities characterized by societal bilingualism, the issue of the degree of bilingualism and the frequency of exposure to each of the languages spoken by the child is a very important one because it raises questions such as the comparability of the data and the variability in the linguistic background of the participants in a study. Such problems are also present in the assessment of language proficiency in students who live in indigenous bilingual communities characterized by a continuum of individuals with different degrees and types of bilingualism and different patterns of language use (Marshall and Peters 1989).

As recommended by Valdés and Figueroa (1994), one of the most valuable tools for a first approach to communities characterized by such levels of variation is the use of initial socio-linguistic questionnaires that gather data on the linguistic background of the participants. Their results provide us with a sense of language preference and frequency of exposure to each of the languages in the bilingual communities. In bilingual research they allow us to establish patterns
of language use for the child at home and in the classroom setting that allow us, along with other tools, to measure the availability of input in each of the languages to the bilingual child. A basic sample socio-linguistic questionnaire (see an English translation of the questionnaire from Zúñiga, Sánchez and Zacharías (2000) in Appendix 1) must inquire for data about the children’s early exposure to the two languages spoken in her environment (items 6-11, 20), patterns of language use and networks of speakers at home (items 12-15, 24), in school (items 25-39) and in other social contexts (items 40-45). A basic sample socio-linguistic questionnaire (see an English translation of the questionnaire from Zúñiga, Sánchez and Zacharías (2000) in Appendix 1) must inquire for data about the children’s early exposure to the two languages spoken in her environment (items 6-11, 20), patterns of language use and networks of speakers at home (items 12-15, 24), in school (items 25-39) and in other social contexts (items 40-45). The questionnaire in Appendix I was used to interview children (9-14) and contains items that require some evaluation of the usefulness of the languages in different contexts (items 46 and 47), but this basic questionnaire can be modified to include more or less items depending on the age of the children interviewed. The original questionnaires used in the study reported in Zúñiga, Sánchez and Zacharías (2000) were administered orally in Spanish, Quechua or Aymara, using the language in which the children felt most comfortable.

Information about language preference for leisure and enjoyable activities (items 16 and 19) is also very valuable in determining the child’s affective connection to each of the language communities. In general, questionnaires provide us with a general picture of the types of communicative interactions in which children use each of the languages they speak. The following figures are elaborated with data from a research project on Quechua-Spanish bilingualism among two communities characterized by their language shift (Sánchez 2003). The
figures illustrate how socio-linguistic questionnaires can shed light on the linguistic background and the perceptions about the type of bilingualism experienced by a student population. Figure 1 shows the children’s responses to the question about their first language in a simplified version of the sample socio-linguistic questionnaire. The item was answered by a sample of 58 Quechua-Spanish bilingual students in 4th-6th grades in the Central Andes of Peru and in the department of San Martin. In these two regions, language shift is taking place at a faster pace now than in prior decades (Sánchez 2003). The answers to this question divide the community of students into three groups with clearly distinct self-perceptions of their mother tongue(s). In both regions, the largest group considers Spanish to be their first language, a smaller second group of children consider Quechua to be their first language, and an even smaller group of children identify themselves as simultaneous bilinguals. I take this to indicate that the children’s perceptions of their mother tongue are reflective of a language shift situation in which a majority of the children begin to think of themselves either as bilingual from birth or as native speakers of the socially dominant language.

FIGURE 1 HERE

Figure 2 shows the results of the same item applied to a sample of 347 students in grades 5th-6th in the Southern Andes of Peru, an area in which language shift from Quechua into Spanish is also taking place, but at a slower pace (Zúñiga, Sánchez and Zacharías 2000) (see endnote 3). In this region, the largest group considers the native language to be their mother tongue. A comparatively much smaller group of children consider Spanish to be their first language, and a very small group of children consider themselves simultaneous bilinguals. In this case the responses to the same item show that the children’s perceptions of their mother tongue reflect a situation in which bilingualism is not perceived by the children to be an extended phenomenon.
These samples show that indigenous communities are undergoing processes of language shift that are affecting the children’s perceptions about their first language in significantly different ways. A majority of children perceived the native language to be their mother tongue in the Southern Andes, but this was not the case for the Central Andes and San Martin. These perceptions must be taken into account when designing language assessment tools for bilinguals. Establishing the degrees of bilingualism that characterize different indigenous populations of school age in a country such as Peru has become a very difficult task in a situation in which language shift affects the linguistic composition of rural areas. Responses to socio-linguistic questionnaires, although not proof in itself of the actual exposure that the children have to the two languages, are revealing of the perceptions that children have about their own bilingualism; and these perceptions may have some impact on how they perform in each of the languages in tasks aimed at collecting data for research or for educational assessment purposes.

While the number of students interviewed for a research project can be manageable, the administration of such questionnaires as a previous step for the elaboration of region-wide language proficiency pilot tests could be very expensive. This is particularly true if the questionnaires are administered by agents external to the schools. In the case of some rural areas of Peru, access to the schools involves a journey of up to two days by foot. For that reason, in order to explore the socio-linguistic composition of the children in particular schools, a more realistic practice is to develop questionnaires that can be distributed to the teachers for data collection. A simplified version of the questionnaire in Appendix I with questions on the child’s patterns of language use in different environments (at home, in school, in the fields, in town, in church or at the temple) can allow teachers and researchers to better understand the types of
register that the child is exposed to in each of the languages spoken in her community.

Assessment of the child’s oral proficiency in both languages has better chances of being fair and adequate if it is based or supported by information on her language preferences and practices according to different contexts and interlocutors.

The assessment of oral skills: the issue of comparability and cultural appropriateness

*Classroom assessment*

In addition to socio-linguistic questionnaires, oral proficiency assessment tools are necessary to determine the level of language proficiency of the children in the classrooms. In a guide for teachers working in rural bilingual areas of Peru (Sánchez 2001), I suggested some guidelines for classroom testing that would serve as an initial evaluation of the children at the beginning of the academic year. This is particularly necessary in rural areas where elementary schools tend to be taught by one teacher and classrooms consist of students of different ages, grades and levels of language proficiency. A sample oral proficiency exploratory test in Spanish is shown below. It can be used for testing at the novice and intermediate levels of proficiency in Spanish as a second language:

**Basic Level**

**Comprehension**

1. The teacher begins a warm-up exploration with the child:
   a. Hola _____, buenos días/tardes. ¿Cómo estás?
      “Hello _____, good morning/afternoon. How are you?”
   b. ¿Cómo te llamas?
      “What is your name?”
   c. ¿Cuántos años tienes?
“How old are you?”

d. ¿Cómo se llama tu papá?
  “What is your dad’s name?”

e. ¿Cómo se llama tu mamá?
  “What is your mom’s name?”

Production

(2) The teacher continues only if the child was able to engage in the first exchange.

The teacher points at several items in the classroom such as pencils, erasers, notebooks, pencil sharpener and asks the child:

a. Aquí tenemos varios útiles escolares, podrías decírmee cómo se llaman.
   “Here we have several school supplies, could you please tell me what are they called?”

Then the teacher shows the child pictures with animals and asks:

b. ¿Qué animalitos tienes en casa/ en la chacra?
   “What animals do you have at home/ in the farm?”

At the intermediate level other questions such as:

Intermediate Level

Comprehension

(3) The teacher shows the child a picture of a house and a school and asks:

a. Ahora presta mucha atención, aquí ves el dibujo de una casa y un colegio.
   “Now, pay attention, here you can see a drawing of a house and a school”

   A continuación, te voy a decir el nombre de algunas cosas y tú me dirás.
   “Next I will tell you the name of some things and you will tell me where are
dónde se usan:

they used”

Example:

Q: La tiza, ¿Se usa en casa o en el colegio?

“Chalk. Is it used at home or in school?”

A: La tiza se usa en el colegio.

“Chalk is used in school”

b. Muy bien. De esta manera vamos a continuar. Ahora te diré las demás palabras:

“Very good. Let us continue with the other words:”

Eraser, board, pot, etc.

“Eraser, board, pot, etc.”

Production

(4) The teacher says:

a. Describe uno de tus animalitos, o describe tu chacra.

“Describe one of your pets/farm animals or describe your parcel/farm”

(5) Then s/he asks:

a. ¿Qué haces en tu casa?

“What do you do at home?”

b. ¿Qué haces en tu chacra?

“What do you do in the fields?”

c. ¿Qué hace tu papá en la chacra?

“What does your dad do in the fields?”

d. ¿Qué hace tu mamá en la chacra?
“What does your mom do in the fields?”

This kind of exploratory assessment of the children’s communicative skills would help the teacher locate the child in one of several proficiency groups for oral communication activities (Vasquez, Sánchez, Lucero, Sánchez and Carvajal 1999). Notice, however, that classroom testing cannot be used for general assessment because it would be very difficult to draw general comparisons from the data obtained. In the next sub-section, I discuss some of the proposals made for oral proficiency assessment among indigenous communities in a regional pilot test conducted by the UMC and GRADE as part of the CRECER 2000 project.

Regional oral proficiency assessment

In deciding how to develop regional tests that make use of communicatively oriented assessment methodologies in rural areas, one of the most important factors that must be taken into account is the overwhelming predominance of a strong oral tradition over literacy among indigenous communities. As in the case of bilingualism and SLA research, obtaining data from bilingual children in two languages is a process that is greatly facilitated when using oral proficiency tasks rather than tasks that require higher degrees of literacy than those currently found in the rural areas of Peru (such as tasks that require high levels of meta-linguistic awareness7). Tasks that work in such environments are those that focus on the oral skills such as the ability to describe characters and narrate stories.

Deciding which tasks are more appropriate to collect oral proficiency data and to assess oral proficiency is a particularly difficult challenge in view of the wide ranging variety of data collection techniques that have been developed by researchers to elicit oral production among communities with high levels of literacy and who live in urban settings (Mc Daniel, Mc Kee and Smith Cairns 1996, Gass and Selinker 1996).
In bilingualism and second language research, we look for language use that is representative, to the extent that it is possible, of the language abilities and linguistic knowledge of the child; and we examine language use that is comparable to other sets of data, as well as reliable and accurate. In language assessment, particular emphasis is put on the issue of reliability and accuracy of test results. In both cases, data collection tools must not be culturally biased in such a way that they make it impossible for the child to demonstrate to the best of her abilities in the level of proficiency attained in a particular language. At the same time, they must provide information comparable to data sets from other children. We also look in both fields to reduce variation in the testing conditions.

In testing oral proficiency, picture-based tasks are particularly helpful because they allow us to have some control over the item that the child will describe or the story that s/he will narrate. This type of control is more difficult to obtain with open-ended questionnaires or even with guided conversations. The use of the same picture or series of pictures also allows for a comparison of descriptions and narrations across children. The pictures, however, must be reflective of the child’s visual environment. In developing pictures that could serve as the basis for descriptions or narratives by children with low levels of literacy, it is better to use pictures that focus on a central character and to select characters that are present in the children’s environment such as domestic animals and pets. Pets in particular have an important role in the lives of children living in rural environments since in certain rural areas of Peru, children participate in farming and animal rearing activities. Figure 3 illustrates one of the pictures used in a picture-based story telling task in one of the research projects conducted in the Central Andes and in the area of San Martin (Sánchez 2003). This task had as its main goal to obtain narratives containing transitive verbs and pronominal forms in Quechua and in Spanish. These
data were analyzed as part of a study on bilingual syntactic representation in the two languages, and the results showed evidence of convergence in certain aspects of the morphology and the syntax of the two languages (Sánchez 2003). The decision of choosing this type of task was made taking into account that, among communities with low levels of literacy, oral production tasks such as picture-based story telling tasks, which were originally developed for children living in urban environments, need to be adapted to the realities of indigenous communities who live in rural areas (see Sánchez 2003 for issues related to the difficulties in the application of such techniques). It is sometimes very difficult for the researcher working in rural communities to obtain data using tests based on images that were originally developed for urban children surrounded by a literate culture. In my own experience in some very isolated rural areas, even older children (9-14) from communities with very low levels of literacy tend to identify the image of a child dressed in the same unfamiliar clothing in a sequence of pictures as a different child in each picture. That is, the convention that the character is the same throughout a series of picture that works in a literate environment is not universally shared. For that reason, in most cases, the researcher must find a compromise between the goal of obtaining data that can be cross-linguistically comparable and the realities of the cultural environment of the participants in the studies. In the case of the research project in the Central Andes and San Martin, there was an additional complication: the two groups of children participating in the study lived in rural areas but in different geographical locations. The children in the Central Andes live in a cold mountainous environment whereas the children in the San Martin area live in a tropical Amazonian environment. In order to use the Mayer and Mayer’s (1975) frog story pictures, some changes in them were needed. The central character of the story is a boy. He had his clothes changed and his shoes removed in the pictures used in the study to match the types of clothing
with which children would be familiar. One of the animals, the dog, also had to be redrawn to look more familiar to the children. These changes can be seen in the contrast between the modified picture (Figure 3) and the original picture (Figure 4):

INSERT FIGURE 3 HERE

INSERT FIGURE 4 HERE

Additionally, other changes were made to match the children’s environment. For example, in Figure 3 high mountains replaced the trees to resemble the Central Andes environment. However, some were painted in green to suggest the greener hills that surround the Amazonian area of San Martin.

The choices made for data collection tools in bilingualism and second language research are not fundamentally different from the choices that educators must make to assess the communicative and linguistic proficiency of bilinguals. Nevertheless, language evaluators in charge of developing nation-wide language assessment tools in Peru face an additional burden. Unlike researchers, who set their own research questions and make decisions on appropriate data collection tools based on those questions, educators in charge of assessment for educational purposes must select the abilities to be tested from a set of official guidelines pre-established by educational authorities.

I will illustrate the kind of choices made by evaluators in the field of language assessment in Peru. In 2000 the Unidad de Medición de Calidad at the Ministry of Education in collaboration with the NGO GRADE developed a pilot test to assess the aural/oral proficiency of Quechua and Aymara speaking children as part of a larger language arts assessment project (CRECER 2000). One of the major concerns in elaborating this pilot test was to assess the child’s ability to describe in each of the languages present in her environment (Sánchez and Pérez 2000) and to do
so following the guidelines in the official curricular document of the country (Ministerio de Educación 1999). The following table presents three abilities listed in the official curriculum for communicative skills and illustrates two abilities selected and one not selected for testing along with the justification provided by the members of the testing team to include or to exclude them:

INSERT TABLE 2 HERE

As table 2 shows, the oral production ability selected was one for which a picture-based task could be used in a testing situation different from the everyday classroom routine. This type of task allows evaluators to control for aspects of the children’s production such as vocabulary items and the approximate length and structure of responses. The aural ability selected could also be tested in a context different from the everyday classroom routine using tape-recorders, although there were reservations about their use in rural environments. Testing of this ability also allows the evaluator to have some control over the vocabulary used by the child and over the length of the responses. The two abilities selected could be tested in conditions that would make the results comparable across populations. On the other hand, the ability not selected for the pilot test was one strongly linked to everyday classroom routine and, due to budget and time limitations, could not be reproduced in a generalized testing situation outside the classroom.

In the pilot test, the items elaborated to assess the attainment of the abilities selected were presented to the child sequentially. First, the child listened to a story in each of the languages and answered three questions related to the text she had just heard (see the next section for a detailed discussion of the construction of the listening task). Then the child was presented with a picture. As in the picture-based task used in the research project previously described, it was necessary to use images of elements that were familiar to the child and that could be compared with data from
children living in other geographical environments. The team working on the elaboration of items for the pilot test agreed that pets or farm animals were some of the most familiar elements in the children’s environments. Pet animals were particularly good as testing images as they could also allow comparisons with data from monolingual Spanish-speaking children living in other rural and urban environments. Description was elicited using a picture-based technique and instructions and questions were elaborated in three languages: Quechua, Aymara and Spanish.

Figure 6 illustrates one of the pictures used in the following item:

*Spanish*

(6) Ahora vamos a hacer otra cosa. Vas a ver unos dibujos. Míralos bien y después te voy a hacer unas preguntas.

“Now, we’ll do something different. You will see some pictures. Take a good look at them and later I will ask you some questions.”

*Quechua*


*Aymara*


INSERT FIGURE 6 HERE

After the child was given some time to observe the picture, the test administrator asked the following questions:

*Spanish*

(9) ¿Qué ves aquí?

“What do you see here?”
The team proposed to grade this kind of item using a holistic scale based on the degree to which the child showed proficiency with respect to the skill. The scale is shown below:

A. Ability attained
B. In the process of acquiring the ability
C. Ability not attained — Type 1
D. Ability not attained — Type 2

A was the grade assigned to answers that showed a full command of the ability to describe objects. B was the grade assigned to answers that showed some relevant information but did not show a full command of the ability to describe. C was the grade assigned to answers with wrong or unstructured information. If the child remained silent, she received the grade D. As a way to illustrate how the criteria were applied, I will show the contents of the rubric for the answer to question (10):

A. The child has attained this ability if she gives an answer in which she mentions three of the following characteristics: size, color, body parts, possession of some object, position of the animal, aesthetic valuation of the animal and or its appearance. The child uses the verbs to be
and *to have*. Example: The bird has many colors, it has a nest, some eggs and it is standing on a branch.

B. The child is in the process of acquiring the ability if she mentions less than three of the characteristics covered in A. Example: The bird has many colors. Pretty.

C. The child has not acquired the ability is s/he produces an unstructured discourse. Example: Bird...colors.

D. The child has not acquired the ability is s/he cannot answer the question or says s/he cannot answer.

In order to obtain basic levels of inter-grader reliability, graders participated in a one-day workshop in which they compared, analyzed and justified their grading. No samples of the language data obtained can be presented in this paper since these are treated as confidential material by the Ministry of Education. Despite the fact that I am not at liberty to discuss the results of the pilot study, I believe that as a first attempt to measure oral proficiency among bilingual children among rural indigenous communities, the elaboration of a test with this kind of items was a significant move towards culturally appropriate assessment of communicative abilities that allows for comparisons across linguistically diverse populations at the elementary school level.

The issue of cross-linguistic and cross-cultural validity

Cross-linguistic validity is not only a challenge when one is trying to elicit oral data from bilingual children; it is even harder when the goal is to develop equivalent listening comprehension tests in several languages. In the case of language assessment of Quechua and Aymara speaking-children, the team of educators and linguists who worked on the CRECER 2000 project encountered that a major problem in developing aural comprehension items for the
pilot test was deciding whether the texts would be first generated in the common majority language (Spanish) and later translated into Quechua or Aymara or whether they should be generated in one of the indigenous languages and then translated into the other indigenous language and Spanish. The differences in grammatical structure at the sentential level and in textual structure at the discourse level made the choice even more difficult since the translations had to be as close as possible to the original text while respecting the textual structure associated to narratives in each language tradition. The team decided to have different items generated in one of the three languages and then translated into the others to minimize the effect of a one-way translation practice in all items. In order to preserve the cultural and environmental appropriateness of the test, the team also decided to incorporate elements of the children’s environment such as pet animals and traditional short stories. Translating the texts was particularly difficult since there are only few bilingual indigenous researchers and educators who were available to work with us generating items. The situation was further complicated by the fact that cross-linguistic validity between the texts generated in the two indigenous languages could be checked only by one of the consultant educators who is trilingual in Quechua, Aymara and Spanish. This educator was also the person who recorded the texts in the three languages to minimize the effect that differences in the recording may have had in the results of the sample group.

The following example corresponds to a text used to measure specific listening comprehension skills listed in the official curricular document: identifying the main topic of a text and identifying characters, actions or events. The children listened to a taped version of the text in their native language (Quechua or Aymara), and they answered questions about the text in their native language. Subsequently, they listened to another text recorded in Spanish and answered
questions about it. The children’s answers were recorded to be later evaluated by judges
according to a rubric of the same type as the one used for oral descriptions. Below is the Spanish
text with an English translation and the Quechua and Aymara versions follow:

Spanish

Un día, en un pueblo lejano, Luis encontró un pequeño jilguero. El pajarillo tenía la patita
rota y estaba tirado en el suelo. Luis lo recogió y se lo llevó a su casa. Allí le curó la
patita y le dio quinua cocida y agua.

Al día siguiente, Luis les contó a sus compañeros lo sucedido con el pajarito. Desde ese día, el
pajarito vive con Luis y lo despierta cada mañana con sus trinos.

Ahora responde estas preguntas.

1. ¿De qué trata este cuento?
2. ¿Qué le pasaba al jilguero?
3. ¿Qué hizo Luis?

English

One day, in a far away village, Luis found a little bird. The little bird had a broken leg
and was abandoned on the floor. Luis picked it up and took it to his home. There he
cured his leg and gave him cooked quinoa and water.

The next day, Luis told his classmates what had happened with the bird. Since that day the little
bird lives with Luis and wakes him up with his songs.

Now, answer these questions:

1. What is this story about?
2. What happened to the little bird?
3. What did Luis do?
Quechua


Chay punchawmantapachas pisquchaqa Luwiswan tiyapusqa, hinallataqsi takiyninwan sapa paqariy Luwistaqa rikch’arichin.

Kunan kay tapukuykunata kutichiy.

1. ¿Imamantataq kay willakuyririman?
2. ¿Imanasqataq pisquchatari?
3. ¿Imatataq Luwisri rurasqa?

Aymara


Jichhaxa aka jiskt’anakaru kutt’ayma.

1. ¿Kunxatsa aka jawarixa parlixa?
2. ¿Kamachatynasa ch’ayña jamach’iruxa?
3. ¿Kunsa Luwisuxa luratayna?
As in the case of the picture-based description task, in this aural comprehension task the same holistic approach to grading was used by the judges. This constituted the first time that such aural comprehension items were administered to bilingual children, although in a pilot test, by the Ministry of Education in Peru. They were an important step towards measuring oral competencies among indigenous children in a communicative and culturally appropriate manner, and they incorporated some level of balance across languages. To avoid biases due to differences in textual structure and in narrative traditions, the items were constructed in the indigenous languages and in the dominant language. They were constructed by native speakers of the indigenous languages who are bilingual (or even trilingual in one case) themselves, and they contained evidential and aspectual markers required in the indigenous languages but not in Spanish.

Conclusions and implications

In this paper, I have presented a brief overview of some approaches to data collection techniques in the field of bilingualism and second language acquisition research and some current views on how to assess the linguistic competence of minority bilingual children from rural indigenous communities in Peru. From the field of early bilingual acquisition and some areas of SLA research comes a tradition of data collection that privileges oral production data over traditional written tests. These traditions coincide with current views in the field of language education for minorities. Researchers in this field propose moving away from traditional psychometric models of language testing (Valdés and Figueroa 1994, Shohamy 2000) and focusing on language assessment techniques that incorporate information about the children’s linguistic environments, as well as measure their actual proficiency in the languages that they speak.
This paper presented examples of language assessment tools that can be used by bilingualism/SLA researchers and educators to determine different aspects of bilingual oral proficiency among rural indigenous populations such as socio-linguistic questionnaires, and picture-based description and story-telling tasks. These examples show that written tests based on traditional psychometric models of language testing are not the only options available to researchers and educators engaged in the assessment communicative competencies among minority bilingual children living in rural environments, even if resources are scarce. The examples discussed tried to circumvent the difficulties inherent to determining bilingual proficiency in a language contact situation in a culturally appropriate manner.

The paper also addressed the issue of how to construct language assessment tools that allow us to obtain cross-linguistic valid and comparable data for research and educational assessment purposes in multilingual contexts.

The implications of the assessment experiences presented in this paper are twofold. The cases presented illustrate how bilingualism/SLA research and language testing can mutually benefit from sharing data collection and assessment techniques to measure bilingualism, in particular in areas such as the assessment of aural and oral proficiency. They also open the path for a dialogue across disciplines on how to develop cross-linguistic and cross-cultural valid language assessment tools in multilingual contexts.
References

Alonso, E. 1997. La evaluación de la actuación oral de los hispanoparlantes bilingües mediante las directrices de ACTFL. *Hispania*, 80, 2, 328-341.


Table 1

Percentage of school delay among Spanish, Quechua and Aymara-speaking children

<table>
<thead>
<tr>
<th>Native language</th>
<th>AGES 6-14</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Delay %</td>
<td>Drop-out %</td>
<td></td>
</tr>
<tr>
<td>Spanish</td>
<td>34.8</td>
<td>9.4</td>
<td></td>
</tr>
<tr>
<td>Aymara</td>
<td>47.2</td>
<td>8.0</td>
<td></td>
</tr>
<tr>
<td>Quechua</td>
<td>62.8</td>
<td>10.1</td>
<td></td>
</tr>
<tr>
<td>Other native languages</td>
<td>62.4</td>
<td>12.4</td>
<td></td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>Abilities</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>The child describes persons, animals, plants, objects, places, situations and elements from her natural and cultural environment (real or fictional).</td>
<td>This ability was tested because it could be easily elicited in a testing situation outside the classroom setting.</td>
</tr>
<tr>
<td>The child engages in dialogues or small group conversations in order to make agreements, develop a working plan or to organize information.</td>
<td>This ability was not evaluated in a pilot test because it refers to processes that take place in the classroom and due to budget and time limitations cannot be reproduced in the testing environment.</td>
</tr>
<tr>
<td>The child listens attentively and understands different discourse styles (instructions, stories, reports, explanations, etc.) about specific topics.</td>
<td>This ability was tested because it could be easily elicited in a testing situation outside the classroom setting by using a tape-recorded story.</td>
</tr>
</tbody>
</table>
Figure 1: Children’s Perception of their L1 in Central Andes and San Martin

(Based on Sánchez 2003)
Figure 2: Children’s Perception of their L1 in the Southern Andes

(Based on Zúñiga et. al 2000)
Figure 3: Picture-based Story-telling Task
Figure 4: Original Picture

(from Mayer and Mayer 1975)
Figure 5: Picture-based Oral Proficiency Testing Item
Appendix I

Sample Sociolinguistic Questionnaire

1. School ______________________________________________________

2. Type of school
   a. complete (all grades)  b. multigrade  c. One teacher for all grades

3. Grade ______________________________________________________

4. Child’s name ________________________________________________

5. Age _________________________________________________________

6. Do you speak (native language)?  a. yes  b. no

7. Do you understand (native language)?  a. yes  b. no

8. Do you speak (socially dominant language)?  a. yes  b. no

9. Do you understand (socially dominant language)? a. yes  b. no

10. Which was your first language?
    a. native language  b. dominant language  c. both

11. When did you start speaking the native language?
    a. less than 3 years  b. 3-7 years
    c. 7-12 years  d. more than 12 years

12. At home, who speaks the native language?
    a. father  b. mother  c. Older siblings
    d. younger siblings  e. grandfather  f. grandmother
    g. uncle or aunt  h. other

13. Who speaks to you in the native language?
    a. father  b. mother  c. older siblings
14. To whom do you speak in the native language?
   a. father  b. mother  c. Older siblings
d. younger siblings  e. grandfather  f. grandmother
g. uncle or aunt  h. other

15. How often do you speak the native language at home?
   a. all the time  b. very often
c. seldom  d. never

16. When you play in which language do you speak more?
   a. native language  b. dominant language  c. both

17. When you speak with your relatives in which language do you speak more often?
   a. native language  b. dominant language  c. both

18. And, when you talk with your friends in which language do you speak more often?
   a. native language  b. dominant language  c. both

19. Which language do you prefer to tell stories or jokes ?
   a. native language  b. dominant language  c. both

20. When did you start speaking the dominant language?
   a. less than 3 years  b. 3-7 years
c. 7-12 years  d. More than 12 years

21. Who speaks the dominant language at home?
   a. father  b. mother  c. Older siblings
d. younger siblings  e. grandfather  f. grandmother
22. Who speaks to you in the dominant language?
   a. father       b. mother       c. Older siblings
   d. younger siblings  e. grandfather  f. grandmother
   g. uncle or aunt   h. other

23. To whom do you speak in the dominant language?
   a. father       b. mother       c. Older siblings
   d. younger siblings  e. grandfather  f. grandmother
   g. uncle or aunt   h. other

24. How often do you speak the dominant language at home?
   a. all the time   b. Very often
   c. seldom        d. never

25. And in the school, in which language do you speak more often?
   a. native language   b. dominant language   c. both

26. Who speaks to you in the native language in school?
   a. the teachers     b. the classmates
   c. the teaching aids d. other

27. To whom do you speak in the native language?
   a. the teachers     b. the classmates
   c. the teaching aids d. other

28. How often does your teacher speak the native language in the classroom?
   a. all the time     b. Very often
   c. seldom           d. never
29. How often do you speak the native language in the classroom?
   a. all the time       b. Very often
   c. seldom             d. never

30. Who speaks to you in the dominant language in school?
   a. the teachers       b. the classmates
   c. the teaching aids  d. other

31. To whom do you speak in the dominant language?
   a. the teachers       b. the classmates
   c. the teaching aids  d. other

32. How often does your teacher speak the dominant language in the classroom?
   a. all the time       b. Very often
   c. seldom             d. never

33. How often do you speak the native language in the classroom?
   a. all the time       b. Very often
   c. seldom             d. never

34. In which language do you answer your teacher’s questions in the classroom?
   a. native language    b. dominant language    c. both

35. In which language is it easier for you to understand your teacher?
   a. native language    b. dominant language    c. both

36. In which language do you read more often in the classroom?
   a. native language    b. dominant language    c. both

37. In which language do you write more often in the classroom?
   a. native language    b. dominant language    c. both
38. In which language do you speak to your classmates in the classroom?
   a. native language  b. dominant language  c. both

39. In which language do you speak to your classmates during recess?
   a. native language  b. dominant language  c. both

40. Besides home and school, where do you spend more time?
   a. fields  b. church or temple
c. village  d. fair

41. Which language do you speak in the fields?
   a. native language  b. dominant language  c. both

42. Which language do you speak when you go to town?
   a. native language  b. dominant language  c. both

43. In which language do you listen to mass/service in church?
   a. native language  b. dominant language  c. both

44. Do you travel to   A. Local cities  B. provincial capitals
   a. all the time  b. Very often
c. seldom  d. never

45. Which language do you speak when you travel?
   a. native language  b. dominant language  c. both

46. Where is it more useful or better to speak the native language?
   a. fields  b. church or temple
c. village  d. fair
e. trips  f. home
g. school
47. Where is it more useful to speak the dominant language?

a. fields  
b. church or temple 

c. village  
d. fair 

e. trips  
f. home 

g. school
Footnotes

1 I would like to thank all those who worked in the different research and language assessment projects that I cite in this paper. I would like to especially thank Jorge Pérez and Madeleine Zúñiga with whom I was fortunate to work on two of the projects. I am particularly thankful to Jorge Pérez for his comments on an earlier version. I would also like to thank Santiago Cueto from GRADE in Peru and to Idelsa Mestas and Nelly Ramos for their dedication to the cross-linguistic validation of items in Quechua and Aymara. Thanks also to the members of the UNEBI, now the DINEBI (Dirección Nacional de Educación Bilingüe, Ministry of Education, Peru) for their support on different projects. I am also indebted to Ricardo Cuenca and Roland Baecker in PLANCAD-GTZ-KfW for their support for the Zuñiga et. al. (2000) project. Thanks also to all the children who participated in the different projects. Finally, thanks to two anonymous reviewers and to Usha Lakshmanan for their comments and suggestions. All errors are mine.

2 The last complete census data available from Perú’s Instituto Nacional de Estadística (INEI) is from 1993. Data available for 2000 does not include information on school delay or drop-out rates according to the variable mother tongue. The closest indicator for academic success among indigenous populations for recent years is the urban/rural distinction. In 2000, the number of speakers (>5 years) in rural areas for each language was 3’342,932 for Spanish, 1’782,551 for Quechua, 269,614 for Aymara, 113,078 for other native languages and 2,774 for foreign languages. 55,761 individuals did not answer the question on mother tongue.
These nation-wide testing practices persisted despite the fact that the first national public document on language policy was published in 1972 and that Bilingual Education programs for indigenous populations have been in place intermittently in different regions since the 80’s (see Zúñiga and Lozada 1985 and Hornberger 1989 for evaluations of two of those programs).

I participated as a consultant in the CRECER 2000 project in charge of developing nation-wide tests on communicative competencies for elementary students in 5th and 6th grades and secondary students. See Sánchez and Pérez (2000).

These sample data come from two districts experiencing language shift from Quechua into Spanish. For the district of Ulcumayo (Central Andes), the 1993 census reported a total of 2,347 speakers of Spanish and only 303 speakers of Quechua (a ratio of 7.74) in the segment of the population between ages 5-14. For the area of San Martin, the 1993 census reported 3,413 speakers of Spanish and 183 speakers of Quechua (a ratio of 18.6) among the population 5-14 (Sánchez 2003).

Thanks to Irma Sánchez for her significant input in developing this oral tests. A similar oral proficiency test for young L2 learners of Japanese that has component involving manipulation of real objects has been proposed by Carpenter, Fujii and Kataoka (1995).

Examples of this kind of tasks are elicited imitation tasks and picture-based grammaticality judgment tasks (Gass and Mackey 2005) that, though currently presented in much more contextualized fashion, are still difficult to grasp in communities with a first generation of schooled children.

The original source for the picture is one of the frog stories by Mayer and Mayer (1975).

Aural comprehension is part of the guidelines and was included in the testing. It will be discussed in the next section.