

Bilingual Speech Sound Screen (BiSSS)

Revised and expanded edition

Pakistani Heritage Languages

Mirpuri – Punjabi – Urdu

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Assessment Manual

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A NOTE ON THE REVISED EDITION OF BiSS

BiSS was originally published in 2006. The data were collected between 2002 and 2004. The data therefore reflect the language situation for Pakistani heritage children living in the North West of England at that time.

This revised edition includes analysis forms that relate to Dodd's categorisation of speech disorders (2005: 150-152), including:

- Articulation disorder,
- Phonological delay,
- Consistent phonological disorder, and
- Inconsistent phonological disorder.

It is vital that articulation errors are differentiated from phonological errors. For this reason, any sound produced incorrectly at word level, should be elicited at sound level (stimulability).

Similarly, inconsistent phonological disorder can only be recognised if the child is asked to produce a set of words on two (or more) occasions. For this reason, there are two columns for recording the child's attempts at picture naming. This should be completed in the same session.

BACKGROUND INFORMATION

The assessment of children with speech disorders is a matter of routine in speech and language therapy clinics and there are a variety of assessments designed to assist clinicians in this diagnostic activity. However, we live in a multi-racial, multi-cultural and multi-lingual society. Bilingualism rather than monolingualism is the normal human condition. Increased mobility and improved communication systems, coupled with family links, economic aspirations, continuing wars and persecution, mean people move more readily than ever between countries. Increasingly, clinicians are faced with the challenge presented by children who come from a variety of cultural backgrounds and who speak languages other than English. Intervention in English for phonological errors will not necessarily carry over to home language phonology. It is not appropriate to assess such children using tests developed for monolingual English speaking children.

The professional standards of the Royal College of Speech and Language Therapists (RCSLT) state that

“Any assessment of a bilingual child’s speech must include assessment of both languages. Due to the presence of two phonological systems, one for each language, assessment of one language will not necessarily identify all the errors present in the other language.

Assessment should also include an assessment of sound stimulability to differentiate articulation disorder from phonological disorder; and word/lexical production to assess consistency of production at the lexical level, in order to identify or rule out inconsistent phonological disorder.”

(RCSLT, 2019)

This assessment has been specifically developed to assist clinicians in the phonological assessment of children who come from a Pakistani heritage background and who speak Mirpuri, Punjabi and Urdu.

THE PAKISTANI HERITAGE COMMUNITY IN THE UK

Pakistan is a country of approximately 220 million people (Pakistani Government, 2017) which was created out of the partition of the South Asian sub-continent in 1947. Pakistan has a long history of migration, both internally and externally and the 2011 Census reveals that there are approximately 1,124,000 Pakistani heritage people in England and Wales making up the second largest Asian minority ethnic group. This Pakistani heritage population is most likely to live in urban locations in England and Wales (OfNS, 2020). The majority of this population originate from the west Punjab region of Pakistan and the Mirpur District of Azad Kashmir. Azad Kashmir is the scene of ongoing political unrest; there is an independence movement, whilst Pakistan and India are in dispute over governance of the territory (Reuters 2019; Madan 1998). This population originally came to the UK in the 1950s and 1960s in response to labour shortages and today the population contains both fourth generation children, born to parents who were themselves born and raised in England as well as members who are recently arrived from Pakistan.

LANGUAGES SPOKEN WITHIN THE PAKISTANI HERITAGE COMMUNITY

Urdu is the official national language of Pakistan but there are at least a further 60 languages spoken in the country (Ethnologue 2003). The Census 2011 conducted in England and Wales failed to report accurate language use for the Pakistani heritage community. Whilst precise figures are not available regarding numbers of speakers, it is known that the three main languages spoken within the Pakistani heritage community in the UK are Mirpuri, Punjabi and Urdu. Previous literature published regarding languages spoken by people from a Pakistani heritage background has often used confusing, conflicting or poorly defined terminology. Indeed there has been some difference about how to spell the language name Punjabi, some authors (often, but not exclusively, describing Indian Sikh communities) preferring to use *Panjabi*. It would seem that this confusion has arisen from varying pronunciations of the word and the

fact that there is no standardised written form. There has been some discussion as to whether Mirpuri is a language in its own right or is a dialect of Punjabi. The difference between language and dialect is itself the subject of much discussion amongst linguists. The three languages covered by this assessment all come from the same Indo-European origin and share many lexical items. However, grammatical variations mean that Mirpuri and Punjabi speakers are not necessarily mutually intelligible. Furthermore whilst Punjabi speakers might refer (in a pejorative manner) to Mirpuri as a dialect of Punjabi, Mirpuri speakers have a clear sense of their language as different. Mirpuri, Punjabi and Urdu should be regarded as separate languages. Since, in the UK, there is close language contact between all three languages (and, of course, English), it may be observed that there is code switching between all these languages. Language identity should be established as the most frequently used/heard and the syntactic and morphological structure of that language, rather than the content (vocabulary, or content words).

MIRPURI

In 1998 it was estimated that there were at least 500,000 speakers of Mirpuri in the UK (Rahman 1998). Mirpuri is spoken in the rural areas of Azad Kashmir, in particular around the city of Mirpur. The language is also sometimes referred to as Potohari and Pahari. There is no written form, although some activists have attempted to create an Arabic-based phonetic script (Rahman 1998). As there is no tradition of literacy, books (other than the Qur'an) are not usually found in Mirpuri speaking homes. Some commentators have incorrectly described such families as 'illiterate'; as literacy is not an option it would be more appropriate to use the term 'pre-literate'.

PUNJABI

The people of the cities and prosperous Punjab province in the north of Pakistan speak Punjabi. It is related, but not identical, to the Punjabi spoken in India but unlike that language it is rarely written. The government of Pakistan is dominated by mother tongue Punjabi speakers, ensuring the language is

viewed as of higher status than Mirpuri. In both Pakistan and the UK many mother tongue speakers of Punjabi encourage their children to use either Urdu or English (Rahman 1998).

URDU

Urdu has both spoken and written forms and is the official national language of Pakistan. As such it is viewed as a high status language, a position reinforced by a strong literary tradition. Despite this the majority of speakers of Urdu in Pakistan have acquired it as an additional language: it is estimated that less than 8% of the population in Pakistan speak it as their mother tongue (Rahman 1998). Due to the high status of Urdu, some Pakistani heritage parents in the UK for whom Mirpuri or Punjabi is their mother tongue, but who have some knowledge of Urdu, are bringing their children up to speak Urdu.

SELF-REPORTING OF LANGUAGE USE

There is evidence of widespread misreporting of language use within this community (Pert and Letts 2003, Stow and Dodd 2005). Many people describe themselves as speaking Urdu when in fact they are Mirpuri or Punjabi speakers. It is likely that this misreporting occurs as a result of several factors, including the higher social status of Urdu and the fact that many people in the UK have heard of the language Urdu but have not heard of Mirpuri. Furthermore, many members of the Pakistani heritage community codeswitch across all three Pakistani heritage languages, as well as English (Pert and Letts 2003).

THE ASSESSMENT

Consisting of twenty one words, this assessment is designed to be a rapid assessment which will identify speech disorders in Pakistani heritage children who are exposed to the languages Mirpuri, Punjabi and Urdu in addition to English. Whilst the assessment does not cover every phoneme in the three Pakistani heritage languages in every word position, it does assess the main categories of plosives, nasals, fricatives, affricates and approximants. Additionally it assesses distinctive features in these three languages which are not assessed in English assessments: aspiration, dentalization and retroflex phonemes. Research has confirmed that this an effective tool for identifying speech disorders in the target Pakistani heritage community (Stow 2005). Supplementary word lists are included in this manual at Table 5 to facilitate the clinician who, following administration of this assessment, wishes to probe an individual child's skills in greater depth in the identified areas of difficulty. Trials have demonstrated that it can be successfully administered by a speech and language therapist who does not speak the Pakistani heritage languages it assesses, although collaborative working with bilingual co-workers is encouraged.

RATIONALE FOR CONDUCTING PHONOLOGICAL ASSESSMENT IN MOTHER TONGUE

When a child speaks English in addition to their mother tongue clinicians may be tempted to assess phonological skills in English alone. The professional standards of the Royal College of Speech and Language Therapists (RCSLT 2019) state that “Assessment and intervention must always be carried out in both/all languages.” These professional guidelines are supported by research evidence which demonstrates that bilingual children have separate phonological systems for each of their languages (Dodd *et al* 1997; Holm *et al* 1998; Holm and Dodd 1999; Holm *et al* 1999). This research was conducted with children speaking a variety of language combinations and described children who:

- Presented with contradictory processes, for example fronting a phoneme in one language and backing it in another.
- Acquired a phoneme in one language but not the other.
- Realised a phoneme in error in different ways in each language they spoke.

The evidence that bilingual children develop separate phonological systems means that it is essential to assess all the languages a child speaks. To do otherwise would risk missing errors which occur in only one of the child’s languages.

THE ASSESSMENT

The assessment consists of twenty one target words. The word list was developed in conjunction with bilingual speech and language therapy assistants who spoke all of the target languages. Wherever possible the target item is described by the same lexical representation across all three languages. Words which may have been borrowed from English were avoided. The simple drawings are culturally appropriate. Some young children from this community are unfamiliar with printed images and in such cases the clinician may choose

to substitute real objects to elicit the target words. The target words were selected with this possibility in mind and the clinician will find appropriate objects are easily available in the clinic environment.

ADMINISTRATION OF THE ASSESSMENT

As with all assessments it is advisable to conduct this assessment in a quiet, well lit room. **The presence of a bilingual assistant or translator as directed in RCSLT guidelines is essential** (RCSLT, 2019). Parents or carers may well be able to assist in eliciting the target words. Both the picture stimulus materials and a copy of the recording form are required. The Pakistani heritage language used by the child should be established before commencing the assessment but the clinician should be aware that children from this community are highly likely to codeswitch and use lexical items from other languages. This should be regarded as completely normal.

The child being assessed should be shown the pictures one at a time and encouraged to name each picture. Play activities such as posting the cards in a posting box or attaching paper clips and then ‘fishing’ for each card with a magnet may encourage the child’s cooperation and maintain their attention. Basic sentences which can be used by the clinician to elicit the target words are found in IPA script in the appendix in Table 6. Wherever possible the child should be expected to respond with no further prompts. If necessary a phonemic cue should be given. If there is still no response a forced alternative may be given. This should be marked on the recording form with an appropriate symbol, for example ‘f/a’, preceding the transcription of the child’s response. If there is still no response from the child, the target word should be modelled and the child encouraged to repeat it. Again, this should be marked on the recording form with an appropriate symbol, for example ‘®’. The child’s utterance should be transcribed on the recording form in IPA in the column marked ‘Transcription 1’. If the child uses an English word this should be transcribed but they should then be encouraged to use the appropriate Pakistani heritage word and this should also be transcribed. Target transcriptions have been provided for the

clinician. These targets are transcribed using IPA symbols, but having regard for the normal practice in speech and language therapy clinics in the UK, cardinal vowels have not been used.

Once the word list has been completed, it should be immediately repeated and the child's responses transcribed in the column marked 'Transcription 2'. This is essential if the child inconsistency of word production is to be evaluated. Without this additional assessment, children with inconsistent phonological disorder may be misdiagnosed. Young children have relatively high levels of inconsistent word production (approximately 40-50%). However, if the child has an inconsistent word production of >40% then inconsistent phonological disorder should be diagnosed. This means that the child has no consistent phonological mapping system and it is therefore ineffective to use process-based therapeutic interventions. In this event, it is not fruitful to describe any phonological processes, since the child has no stable patterns in their speech.

Lexical variations caused by regional differences occur in the target population just as they do in the wider population of the United Kingdom. Thus, for example, a picture of a cup of tea intended to elicit the word 'tea' might instead elicit the word 'brew' in some areas of England. In that example the clinician would use their local knowledge, accept the validity of the word used by the child and proceed to elicit the desired target word as well. When administering this speech screen if the child uses a word which is not shown as a target on the recording sheet the clinician should ask the parents if they would use the word produced by the child for the item pictured. If necessary, establish which of the given target words the parent would use before attempting to elicit that word.

THE INTERPRETATION OF ASSESSMENT RESULTS

ENGLISH DOMINANCE

If a child produces the appropriate English lexical item for more than half of the targets, consideration should be given to the fact that the child has moved to English as their dominant language. This is a phonological assessment and not an assessment of vocabulary or word finding abilities.

ANALYSIS OF DATA AND COMPARISON WITH NORMATIVE DATA

PHONOLOGICAL PROCESSES

The normal pattern of occurrence of processes is shown in Table 1. Clinicians' attention is drawn to the fact that voicing, particularly of affricates, does not appear to be a distinctive feature for many speakers in this population. If in doubt it is sensible to ask the parents whether they find their child's realisation of a word acceptable and ask the parents how they themselves produce the target word.

AGE OF ACQUISITION OF PHONEMES

Clinicians will be familiar with normal patterns of phonological acquisition for monolingual English speaking children. However, **normative patterns developed from monolingual children should never be applied to bilingual children**. Data showing the normal age of acquisition of phonemes by Pakistani heritage children living in England and speaking Mirpuri, Punjabi and Urdu is shown in Table 2.

ITEMS COMPLETED

Table 3 presents data representing the number of items completed by age and allows the comparison of an individual child's performance with the standardisation population.

PERCENTAGE OF CONSONANTS CORRECT

Calculation of this figure for an individual child's performance is facilitated by using the consonants correct calculation sheet. The child's performance can then be compared to both the mean and range data presented in Table 4.

Clinicians may wish to probe any identified areas of difficulty further. To facilitate this, suggested word lists for each category of consonant are found in Table 5.

APPENDIX

TABLES

Table 1 Occurrence of Processes

Process	Ages between which this process typically appears
Stopping	≤ 5;05
Fronting	2;06 – 4;11
Gliding	2;06 – 6;05
Voicing	2;06 – 4;11
Weak syllable deletion	≤ 5;05
Reduplication	≤ 4;11
Assimilation	≤ 3;05
Intrusive consonant	3;06 – 6;11
De-retroflex	2;06 – 5;05
De-dentalisation	3;00 – 5;05
Initial / Within-Word (“Medial”) / Final Consonant Deletion*	≤ 5;05

*NB. Observed in normative sample, but at a lower rate than the usual threshold for a process to be confirmed due to sample size.

If observed, categorise as ‘delayed’ and not disordered with caution.

Table 2 Age of acquisition of phonemes

	Acquired by approximately 50% of children of this age	Acquired by approximately 75% of children of this age	Acquired by approximately 100% of children of this age
Nasals	2;06	3;06	5;00
Plosives	3;00	3;06	5;00
NB In the standardization population / ɔ̃ / was the first phoneme established in 50% of children. It occurred in 50% of children by age 2;05.			
Fricatives	3;06	4;06	5;00
Affricates	4;00	5;00	5;06
Approximants	2;06	4;00	5;06

Table 3 Number of completed items by age

Age (yrs;mths)	Completed items (including prompted responses): Mean	Completed items (including prompted responses): Range
≤ 2;05	4.0	0 - 18
2;06 - 2;11	14.7	0 - 21
3;00 - 3;05	15.8	0 - 21
3;06 - 3;11	18.5	0 - 21
4;00 - 4;05	17.0	0 - 21
4;06 - 4;11	18.5	0 - 21
5;00 - 5;05	21.0	21 - 21
5;06 - 5;11	21.0	20 - 21
6;00 - 6;05	20.2	16 - 21
6;06 - 6;11	20.7	19 - 21
7;00 - 7;05	20.4	18 - 21
7;06 - 7;11	20.4	19 – 21

Table 4 Percentage consonants correct by age

Age (yrs;mths)	Percentage consonants correct of attempted consonants: Mean	Percentage consonants correct of attempted consonants: Range
≤ 2;05	73%	38–100%
2;06 - 2;11	79%	64–89%
3;00 - 3;05	80%	56– 91%
3;06 - 3;11	88%	58-100%
4;00 - 4;05	92%	77–100%
4;06 - 4;11	94%	76-100%
5;00 - 5;05	95%	87-100%
5;06 - 5;11	97%	89-100%
6;00 - 6;05	98%	93-100%
6;06 - 6;11	98%	93-100%
7;00 - 7;05	99%	91-100%
7;06 - 7;11	97%	93-100%

Table 5 Supplementary word lists

Category	Word position	English	Mirpuri	Punjabi	Urdu
bilabial plosive	initial	<i>onion</i>	piaz	piaz	piaz
bilabial plosive	initial	<i>drinking (male person)</i>	pi-na	pi-ṇḍa	pi rəha hēa
bilabial plosive	initial	<i>drinking (female person)</i>	pi-ni	pi-ṇḍi	pi rəhi hēa
bilabial plosive	initial	<i>cat (female)</i>	bɪli	bɪli	bɪli
bilabial plosive	medial	<i>box</i>	ḡəba	ḡəba	ḡəba
bilabial plosive	final	<i>book</i>	kɪṭab	kɪṭab	kɪṭab
dental plosive	initial	<i>looking (male person)</i>	ṭæk-əna	ṭæk-ḡa	ḡeiq reha hēa
dental plosive	initial	<i>looking (female person)</i>	ṭæk-əni	ṭæk-ḡi	ḡeiq rehi hēa
dental plosive	initial	<i>door</i>	ḡervazə	ḡervazə	ḡervazə

Category	Word position	English	Mirpuri	Punjabi	Urdu
bilabial aspirated plosive	initial	<i>kite</i>	ṙʰəṭəŋg	ṙʰəṭəŋg	ṙʰəṭəŋg
dental aspirated plosive	initial	<i>towel</i>	ṭʰəliʝə	ṭʰəliʝə	ṭʰəliʝə
dental plosive	medial	<i>shoe</i>	ḍʒuṭi	ḍʒuṭi	ḍʒuṭi
dental plosive	medial	<i>light</i>	bṭi	bṭi	bṭi
dental plosive	final (M, P); initial (U)	<i>leg</i>	lṭ	lṭ	ḍəŋg
velar plosive	initial	<i>chair</i>	kṛsi	kṛsi	kṛsi
velar plosive	initial (M, P); medial / syllable initial (U)	<i>girl</i>	kṛi	kṛi	lɜrki
velar plosive	initial	<i>comb (feminine)</i>	kṛŋgi	kṛŋgi	kṛŋgi
velar plosive	initial	<i>comb (masculine)</i>	kṛŋga	kṛŋga	kṛŋga
velar aspirated plosive	medial / syllable final	<i>fan</i>	bṛkʰa	bṛkʰa	bṛŋkʰa

Category	Word position	English	Mirpuri	Punjabi	Urdu
velar plosive	initial	<i>car</i>	gʌɖi	gʌɖi	gari
velar plosive	medial /syllable initial	<i>grapes</i>	ʔʌŋgur	ʔʌŋgur	ʔʌŋgur
velar plosive	final	<i>number one</i>	ɪk	ɪk	eɪk
bilabial nasal	initial	<i>fish</i>	mʌtʃi	mʌtʃi	mʌtʃli
bilabial nasal	initial	<i>henna (hand decorations)</i>	menɖi	menɖi	məhenɖi
bilabial nasal	medial	<i>mum</i>	ʌmi	ʌmi	ʌmi
bilabial nasal	medial / syllable final	<i>lemon</i>	nɪmbu	nɪmbu	nɪmbu
bilabial nasal	final	<i>mango</i>	amb	amb	ɑ:m
alveolar nasal	final	<i>curry</i>	sələn	sələn	sələn
alveolar fricative	initial	<i>vegetables</i>	sʌbzi	sʌbzi	sʌbzi

Category	Word position	English	Mirpuri	Punjabi	Urdu
alveolar fricative	initial	<i>sun</i>	surɪd͡ʒ	surɪd͡ʒ	surɪd͡ʒ
alveolar fricative	final	<i>number ten</i>	ɖɫs	ɖɫs	ɖɫs
alveolar fricative	final	<i>top (blouse)</i>	kəmiz	kəmiz	kəmiz
post alveolar fricative	initial	<i>thank you</i>	ʃʊkrija	ʃʊkrija	ʃʊkrija
post alveolar fricative	initial	<i>wedding</i>	ʃaɖi	ʃaɖi	ʃaɖi
post alveolar fricative	final	<i>rain</i>	bəɾɪʃ	bəɾɪʃ	bəɾɪʃ
post alveolar affricate	initial	<i>tea</i>	t͡ʃa	t͡ʃa	t͡ʃaɪ
post alveolar affricate	initial	<i>rice</i>	t͡ʃavəl	t͡ʃavəl	t͡ʃavəl
post alveolar affricate	initial / final	<i>spoon</i>	t͡ʃʌmʌt͡ʃ	t͡ʃʌmʌt͡ʃ	t͡ʃʌmʌt͡ʃ
post alveolar affricate	initial / medial	<i>spoon</i>	t͡ʃʌmt͡ʃi	t͡ʃʌmt͡ʃi	t͡ʃʌmt͡ʃi

Category	Word position	English	Mirpuri	Punjabi	Urdu
post alveolar affricate	initial	<i>aeroplane</i>	ḍʒɑz	ḍʒɑz	ḍʒəhɑz
post alveolar affricate	medial	<i>carrot</i>	gɑḍʒer	gɑḍʒer	gɑḍʒer
lateral approximant	initial	<i>writing (male person)</i>	lɪkʰnɑ	lɪkʰɖɑ	lɪkʰ rehɑ hɛə
lateral approximant	initial	<i>writing (female person)</i>	lɪkʰni	lɪkʰɖi	lɪkʰ rəhi hɛə
lateral approximant	medial / syllable final	<i>bucket</i>	bæɭɪ	bæɭɪ	bæɭɪ
lateral approximant	final	<i>hair</i>	bɑ:l	bɑ:l / vɑ:l	bɑ:l
retroflex tap	initial	<i>unleavened bread</i>	ɽəʊɖi	ɽəʊɖi	ɽəʊɖi

Table 6 Prompts for eliciting target words

Language	Prompt (in IPA)
English	What's this?
Mirpuri	e kaɪ ja
Punjabi	e ki je
Urdu	je kja hɛə

STANDARDISATION DATA

The detailed data presented in Tables 1-4 were derived by administering the assessment to a total of 246 children with a Pakistani heritage background.

The children were aged between 1;04 and 7;11 and lived in England. Of the 246 children a total of 129 (52%) spoke Mirpuri, 63 (26%) spoke Punjabi and 54 (22%) spoke Urdu. The children were acquiring English as an additional language, usually on entry to nursery. A detailed breakdown of this standardisation population is shown in Table 7. Further detail is available in Stow and Pert (2006).

Table 7 Standardisation population

Age	Number	Female	Male
0 - 2;05	13	7	6
2;06 - 2;11	11	6	5
3;00 - 3;05	21	10	11
3;06 - 3;11	58	27	31
4;00 - 4;05	41	23	18
4;06 - 4;11	17	9	8
5;00 - 5;05	15	6	9
5;06 - 5;11	21	10	11
6;00 - 6;05	12	5	7
6;06 - 6;11	12	5	7
7;00 - 7;05	17	10	7
7;06 - 7;11	8	4	4
	246	122	124

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