

## **Test of Articulation in Bengali**

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### **INTRODUCTION:**

Studies in Articulation test in Indian Languages are not many. Uptill now few articulation tests are developed in Indian languages such as Ram Mohan Babu et. al (1972) in Kannada, Usha (1986) in Tamil and Padmaja (1988) in Telegu. But such articulation tests cannot be used with people who speak other languages in India. To overcome all these problem there is a dire necessity to develop the standardized articulation tests in all the Indian languages.

The present study was carried out to design a screening articulation test in Bengali language for diagnostic and therapeutic purposes, since there is no standardized test available in Bengali language.

The articulation tests and related articulatory assessment procedures are clinical tools that have been developed primarily by Speech-Language-Phothologists.

Traditionally an articulation test has been defined as a technique employed to measure the Phonemic capacity of an Individual (Van Riper and Irwin, 1958):- the articulation test can be used in a variety of ways:-

(1) To determine the phonemic proficiency of an individual. Here the phonemes that are actually used by the individuals are compared with the phonemic structure of his language group.

2) To determine if his or her speech sound system is sufficiently deviant from the norm to merit intervention.

3) To enable prediction and to make prognostic statements about eventual acquisition of articulation.

4) To test for programming, that is, to determine the direction, form and frequency of a remediation programme.

5) It helps to observe changes due to instruction or to maturation in an individuals phonetic proficiency.

6) It helps in resort an experimental studies to determind the other linguistic factors.

When the case with mis-articulation present himself to us for therapy, we must do more than try to determine the causal factors that initiated the problem or contributed to its severity. We must scrutinise his speech to determine the nature of the deviant behaviour. We must discover the articulatory errors that make his speech unacceptable. Our therapeutic task will be to eliminate them and replace them with the standard sound of our language. Unless we do this analysis we will work blindly.

In order to make such an analysis we must procure a representative sampling of the case's speech. Traditionally lists of words and sentences arranged so as to include all of the speech sounds have been used for this purpose. For the examiner's convenience;

each of the sentences has been loaded with a single sound used in the initial medial and final positions of the words. The case is asked to read this material or to repeat it after the examiner. This procedure gives a quick screening test of articulatory adequacy.

However, based on the different tests, the articulation tests are classified in different ways such as (a) Developmental tests (b) Screening tests (c) Predictive tests and (d) Diagnostic test.

The purpose of the present study is to construct an articulation test in Bengali language and establish the norms for the same to enable to test and suggest further management procedures for Bengali speakers with misarticulation.

**METHODOLOGY:** the acquisition of articulation from age to

Seven vowels, twenty eight consonants and eighteen clusters of Bengali were selected for the present study. Three hundred and eighty four words with these sounds in various word positions such as initial, medial and final positions were compiled. All the items in this work list were picturable and unambiguous. This test was administered to Bengali speakers in the age range of 20-60 yrs. for rating the familiarity on the five point rating scale.

The words rated as highly familiar by 90% of the subjects were chosen for the actual study. One hundred and eighteen such words were picturized on flash cards of 4" X 3" size for articulation testing.

For obtaining the normative data, this test was administered to 165 normal Bengali speaking school going children in the age range of 2-8 years selected from different schools. The children divided into six groups of one interval in each. The test was administered individually and cards for

articulation were visually presented and the oral responses were noted.

### RESULTS AND DISCUSSION:

The test was scored on the basis of the frequency of occurrence of the correct responses. The data was statistically treated by obtaining the mean, percentage and standard deviation. The significance of difference between the means was obtained in each group for both sexes at 0.01. and 0.05 levels. It was found to be significant between the means for males and females in each group for articulation,

From the results it was found that performance varied from one age group to another. As the age increased scores also increased. There was a definite pattern in

Table 1: Mean Articulation Scores for Males.

Group	Group range in age	Mean age	Mean	Percentage	Standard Deviation.
Group I	2.0-3.0	2.6	101.57	86.07	1.56
Group II	3.1-4.0	3.6	108.00	91.53	1.42
Group III	4.1-5.0	4.5	110.80	93.89	1.29
Group IV	5.1-6.0	5.5	113.80	95.44	1.75
Group V	6.1-7.0	6.6	115.80	98.13	1.66
Group VI	7.1-8.0	7.6	117.10	99.23	1.52

Table 2: Mean Articulation Scores for Females.

Group	Group range in age	Mean age	Mean	Percentage	Standard Deviation.
Group I	2.0-3.0	2.7	104.0	88.14	0.18
Group II	3.1-4.0	3.6	109.9	93.14	0.96
Group III	4.1-5.0	4.6	112.5	95.33	0.15
Group IV	5.1-6.0	5.6	114.8	96.31	0.28
Group V	6.1-7.0	6.6	115.4	97.79	0.19
Group VI	7.1-8.0	7.7	116.5	98.72	0.31

age. The children in the present study seemed to acquire most of the sounds earlier than the English speaking children.

The difference between male and female in terms of articulatory skills were found to be significant. Females exhibited superior articulatory skills when compared to males in all the age groups.

It was observed that all the vowels were acquired by the age of 2.5 years. Also most of the consonants were acquired by the age of 3 years except fricative (Zh); flap (r), trill (r) and some of the clusters sounds like (kr), (ksha), sounds were either substituted or omitted. No other errors of distortion or addition were observed.

When compared with the Western studies it was noticed that Eastern population acquired speech sounds earlier. The early articulatory acquisition in Bengali speaking children may be attributed to cultural differences.

In general the pictures used in this articulation test were found to be of useful. None of the pictures were ambiguous which indicate that the test can be used as diagnostic test of articulation.

#### **SUMMARY AND CONCLUSION:**

The present test of articulation is based on the standard dialect of Bengali. But the

results in other dialects of Bengali may vary. So, It is necessary to study and standardize the test further using large samples in different dialects of Bengali.

Hence, it can be concluded that present study designed to test articulation in Bengali would be helpful in identifying and evaluation of articulation problems, planning and choosing therapy techniques and in estimating progress.

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# APPENDIX

<i>Name....</i>	<i>.....Age 1 Sex....</i>			
Picture Card No.	Phoneme to be tested	Initial Position	Medial Position	Final Position
1	l i l	idur	pencil	tictiki
2	f	Ǝkus <sup>h</sup>	b <sub>E</sub> i	pepe
3	ae	<b>aek</b>	<b>faen</b>	—
4	a	<b>a : m</b>	matha	tala
5	o	<b>ojagar</b>	mondir	surjyo
6	o	ol	k <sup>h</sup> opa	p <sup>h</sup> oto
7	u	<b>ut</b>	moyur	<b>lau.</b>
8	k	kobm	saikae	trak
9	kh	k <sup>^</sup> at	pak <sup>h</sup> i	cok <sup>h</sup>
10	g	goru	relgari	baeg
11	gh	ghora	dakg <sup>h</sup> ar	bag <sup>h</sup>
12	d	—	av>gul	baj)
13	C	<b>Cear</b>	k a c i	p a c
14	Id	c <sup>h</sup> ata	bic <sup>h</sup> ana	mac <sup>h</sup>
15	•j'	juta	dorja	Piaj
16	Ijh1	j <sup>h</sup> uri	majhi	—
17	It 1	tebil	ksetli	<b>get</b>
18	Itb1	thot	cit <sup>h</sup> i	mat <sup>h</sup>
19	Id1	dim	gondar	bled
20	IdM	dh <sub>a</sub> k	dhol	—

Picture Card No. 1	Phoneme to be tested	Initial Position	Medial Position	Final Position
21	<b>I</b> tl	<b>tobla</b>	<b>botol</b>	<b>karat</b>
22	<b>It</b> M	<b>t<sup>h</sup>ala</b>	<b>pat<sup>h</sup>Dr</b>	<b>rot<sup>h</sup></b>
23	<b>I</b> dl	<b>dori</b>	<b>kodal</b>	<b>cad</b>
24	l <b>d</b> »l	<b>d<sup>h</sup>an</b>	<b>gad<sup>h</sup>a</b>	<b>bad<sup>h</sup></b>
25	<b>In</b> l	<b>nouka</b>	<b>gDneJ</b>	<b>horin</b>
26	<b>I</b> pl	<b>palla</b>	<b>apel</b>	<b>Jap</b>
27	<b>I</b> pM	<b>phul</b>	<b>kop<sup>h</sup>i</b>	<b>jirap<sup>h</sup></b>
28	<b>I</b> bl	<b>bonduk</b>	<sup>A</sup> <b>cabi</b>	
29	<b>I</b> bM	<b>b<sup>o</sup>aluk</b>	<b>tib»»</b>	<b>s<sup>o</sup>bh</b>
30	<b>I</b> ml	<b>muja</b>	<b>col ma</b>	<b>mom</b>
31	l r l	<b>rani</b>	<b>tara</b>	<b>badar</b>
32	<b>ll</b>	<b>lay</b>	<b>bselun</b>	<b>pul</b>
33	<b>I</b> fl	<b>jDnk<sup>h</sup>o</b>	<b>poiS a.</b>	<b>hauf</b>
34	<b>I</b> hl	<b>hati</b>	<b>jahaj</b>	<b>sirjha</b>
35	<b>I</b> rl	—	<b>g<sup>h</sup>Dri</b>	<b>bhir</b>
36	clusters		<sup>v</sup> <b>cokcro</b>	<b>glai</b>
37		<b>srikrisno</b>	<sup>y</sup> <b>bakso soroswoti</b>	<b>tipanno</b>
38		<b>cktopas</b>	<b>couddo</b>	<b>» riksa</b>
39		<b>» bras</b>	<b>g<sup>b</sup>oato</b>	<b>istari</b>
40		<b>bristi</b>	<b>pistol</b>	<b>gaenji</b>
41		<b>skru</b>	<b>taeksi</b>	<b>eroplen</b>