

The Use of *Face Clues* in Teaching a Second Language

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ABSTRACT

The Face Clues programme arose when struggling to teach a severely hard-of-hearing child how to speak. It was then developed further to complement the conventional methods used by therapists in teaching speech production to clients who are hard-of-hearing and deaf. When the Face Clues are used in combination with auditory, tactile and kinesthetic stimulation provided by the teacher, the result is clearer speech production, which preserves individual variations in pronunciation and dialect without compromising comprehension. The basic template for the Face Clues is kept constant throughout the entire series of face phonemes. The shape of the mouth and essential element symbols depicting what cannot be seen in the production of each phoneme, are included in each face diagram. The Face Clues are not language bound and have already been adapted into English, Afrikaans, French, Zulu, and Kikonga. They are used locally and overseas in therapy with clients who present with different speech communication difficulties.

The Face Clues have also been used in several schools to teach auditory discrimination, pronunciation and phonics in the mother tongue. The Face Clues effectively illustrate the differences between the sounds of the mother tongue and the new / unique sounds found in the second language.

KEY WORDS: Face Clues, essential symbols, pronunciation, auditory discrimination, second language.

INTRODUCTION

Communication is a kind of magic. It allows us to discuss complicated matters like emotions, things too small to see like the atom, or things too large to imagine like the universe.

The *Face Clues* were originally developed out of frustration whilst I was working as a Speech and Hearing Therapist at the Chris Hani / Baragwanath Hospital. I was trying unsuccessfully to teach a hard of hearing Zulu child, to speak and produce the different sounds necessary to speak his mother tongue. As I had not been successful using conventional methods, I decided to teach him to speak using the written word. It was hoped that if he could be taught to read and to distinguish visually between the different printed letters and combination of letters, then he could be taught that each letter represented its own unique sound and needed to be produced individually.

The *Face Clues* became widely accepted and were eventually patented in South Africa, the United Kingdom and the USA.

A LOOK AT THE IMPORTANCE OF VISION AND VISUAL CUES INVOLVING LIP-AND FACE-READING

The literature concerning lip-reading stresses the difficulties experienced by people when learning to speak through the visual channel only. Gregory and Mogford (1981, in Dodd & Campbell, 1987, p. 208) stated that "Lip-reading was thought to be a visual skill developed by the

deaf to compensate for the lack of hearing".

According to Alpiner & McCarthy, (1987, p. 64-67), "Most of these (lip read) movements occur inside the mouth and cannot be seen." Learning to produce speech was believed to be an auditory phenomenon. Research into the literature showed that speech reading **supplements** hearing, but cannot be a **substitute** for hearing. The amount of speech production derived from a visual means of communication is severely limited.

According to Jeffers and Barley (1971) there are six main limitations to lip-reading; low visibility of speech sounds, homophonous sounds, rapidity of normal speech, transition effect, individual differences in sound formation and environmental limitations. Woodward and Barber (1971, in Jeffers and Barley, 1971, p.17) felt that lip movements themselves played a small part in the formation of sounds.

At the same time, lack of visual cues can impede effective speech production. Mills (in Dodd & Campbell, 1987, p. 8) showed "that, with careful testing, blind children are found to have problems in acquiring phonemic distinctions that are readily available from seeing the speaker." Dodd & Campbell (1987, p.8), also stated that " young hearing children from an early age responded to seen speech just as if it had been heard; they do not ignore it, and it can even guide their babbling behaviour."

Vision and being visually aware are an integral part in speech perception in the hearing person as becomes obvious in the following situations; when one is trying to follow a conversation in a noisy environment, learning a second language, trying to follow a movie where the

soundtrack is dubbed or out of synchrony or where one is trying to locate a speaker in a group. The ventriloquist does not move his mouth, only that of the dummy, yet because the dummy's lips are moving one thinks it is speaking.

Numerous studies have been done to investigate the amount of speech perception obtained purely from lip-reading. In a study of adults with normal hearing Dodd & Campbell (1987) found that they heard only 49% of speech correctly, in the presence of white noise, when not observing lip movement. When lip-reading was allowed, correct hearing increased to 79.5%. Wundt (1911, in Dodd & Campbell, 1987, p. 164), felt "audition provided a target for production and lip movements gave more concrete cues about how to produce the speech sounds." Kuhl (1980, in Dodd & Campbell, 1987, p. 164) stated that at as early as four months of age, infants can perceive most, if not all, of the acoustic cues in the phonemic categories of English.

Dodd & Campbell (1987) found that infants from as early as two months of age preferred to look at a human face than at other visual displays. Some infants became distressed when their mother's voice was artificially displaced from the spatial location of her face. This shows the importance of both visual and auditory cues in the acquisition of language and that for the best results both channels are necessary.

Dodd & Campbell (1987, p. 169-170), cited Meltzoff and Moore (1977, 1983); Dodd (1972, 1979); and Kuhl and Metzoff (1984) who noted that infants are specifically aware of facial gestures and that their auditory and visual perceptual systems are adequate to enable them to code auditory and visual inputs across modalities. The infants' attention to speech was tested in the following situations, firstly when the movements were congruent and secondly when they were conflicting. Their preference was to watch the face where the lip movements corresponded to the auditory stimulus.

It was also found that lip-reading skills do not appear to increase with age and that from the time children with normal hearing start learning words, they store information not only about how words sound, but also how they "look" when spoken. They had no difficulty grasping the concept that a purely lip-read pattern could represent a word. Lucas (1982, in Dodd & Campbell, 1987, p.173) demonstrated that children, who observed lip movements while listening, made fewer errors when imitating the words than those who only listened.

The findings of (Gibson, 1960; Bower, 1974; Meltzoff and Moore, 1983; in Dodd & Campbell, 1987, chapter 7) indicate that, "auditory and visual speech (lip-read) perception ability develop together and that speech sound production is not modality specific." Reisberg, Scheiber and Potemken (1981, in Dodd & Campbell, 1987, p.96), show that the subjects' auditory attention tends to follow eye position. The subjects were presented with a list of words coming from a loud speaker and when they were asked to recall the words, those who had looked at the loudspeaker tended to remember more words.

The effect of vision on attention can be seen, especially in a class or a group where several voices are audible and eye position determines which voice is accorded pre-eminence. According to Dodd & Campbell (1987), foreign-language students tend to use lip-reading skills more consciously as they try to master new phonemes and new permissible sound strings.

THE IMPORTANCE OF THE PHONOLOGICAL STRUCTURE IN LEARNING A LANGUAGE

The ability to acquire the phonemes of the language has an effect on learning language and associated skills. Seeff (1997) stated that in her study of ESL, learners experienced speech-processing difficulties to some degree and this could be strongly correlated with their abilities at the input level of speech processing.

It has been said that phonological awareness can be facilitated and facilitation can improve reading outcome (Alexander, 1991 in Kent, 1992).

At a Phonological Seminar in Pretoria (2000), Professor N W Bankson presented a workshop in which he discussed how phonological awareness, in the development of the child, affects acquisition skills for reading, writing, spelling and comprehension. He also emphasised how essential phonological processing skills are in the Pre-Primary School. Alpiner & McCarthy (1987), agreed stating that lack of good discrimination ability results in perceptual confusions and distortions that may inhibit or reduce the understanding of the language.

Catts (1997), has carried out research on the child with language-based reading disabilities and his studies showed that many of these children had an early history of struggling with sound awareness and sound manipulation.

An awareness of sound and its production is essential for the development of language. The *Face Clues* lend themselves to the development of phonological awareness involving language as they make use of several modalities, concentrating on vision, hearing and tactile sensation. The *Face Clues* involve less simple auditory phonetic drill and more cognitive involvement in the production and use of the phonemes. The *Face Clues* can lead almost immediately to the production of meaningful words developing phonetic discrimination, analysis and synthesis further with the aid of minimal pairs.

THE DEVELOPMENT AND AIM OF THE FACE CLUES

As mentioned previously, the *Face Clues* were developed when I was trying to teach a hard of hearing child to speak through the medium of writing. Zulu flash cards were prepared with each letter presented on its own card. The cards were made up of a capital and small letter, an example of and a rough diagrammatic face showing how to say the sound. These cards were presented one at a time until all the letters had been covered. He progressed well and within three months was able to distinguish one letter from another and to combine the cards into words. I noted that he was watching my face and had begun to vocalise without realising it.

When the example and face were removed and he was presented with only the letters he was unable to recognise them or place the letters in sequence to write a word. But when presented with only the diagrams of the faces he was able to recognise them and place them in order so that they "wrote words". He was, in fact, "reading" the faces.

He was able to separate, visually, one face from another, match them to a specific sound and the position of the therapist's mouth and articulators. He had begun to lip-read and face-read and he started attempting to articulate sounds and words.

The *Face Clues* were then improved and symbols were

added to assist the child to perceive the difference between the less visible elements and enable them to accurately produce voicing and voicelessness, air friction, and lip rounding etc.

The Face Clues provided a stationary model and the teacher/therapist simultaneously provided a moving model of the face, lips and oral structures and combined them with auditory and tactile stimulation. This provided the child with maximum stimulation and facilitated speech production.

PRESENTATION OF THE ENGLISH FACE CLUES

The learners are first introduced to the outline of the face with its two eyes and nose, which are kept constant. This is done so that they become so familiar with the outline, eyes and nose that they concentrate on the important different mouth positions. The teacher, armed with the necessary tools - the charts, flash cards and matching games

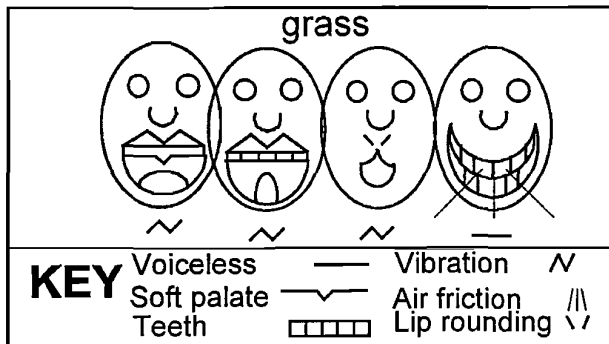


FIGURE 1 Some of the symbols that are provided with the Face Clues to enable each of the sounds to be produced correctly.

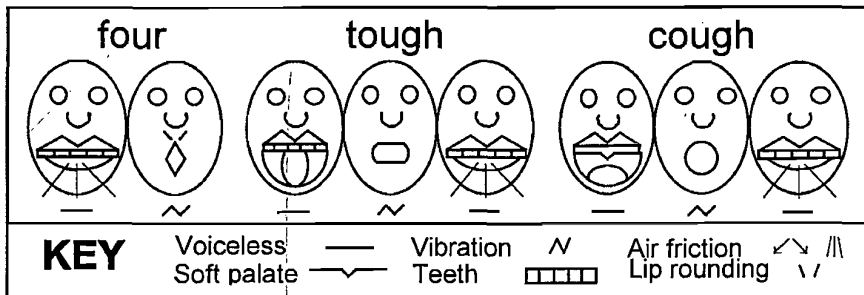


FIGURE 2 The Face Clues shows the pronunciation of four, tough and cough. Note that the letters are kept together above the centre of the group of Face Clues and not spread out over each face.

TABLE 1. Some of the symbols used to represent the non-visual and less visual essential elements.

	Lip rounding showing pursing of the lips.		Voicelessness showing lack of vibration in the throat		Lip spreading
	Air friction showing the movement of the air		Short Voicing showing a brief vibration in the larynx		Glides/blends
	Ejected air expelled from the mouth		Short Voicing showing a brief vibration in the larynx		Inspiration

- begins the activity of teaching the sounds that make up the phonological structure of the language.

The Teaching commences with the vowels, starting with those that look very different, e.g. the /æ/ and /u/, moving onto those vowels that are visually and auditorily similar e.g. the /a/ barn, /o/ born and /ɔ/ burn or in bet, bit and beet.

Once the learning of the 11 English vowel sounds is completed, the less visible essential features with their respective symbols are introduced, namely the presence or absence of voicing, air-friction and nasality. The consonants are then taught.

In English there are only 18 distinct mouth positions. Using the Face Clues in combination with the symbols depicting the essential distinctive features such as voicing / voicelessness etc., the learner can produce all the sounds used in the English language.

The Face Clues enables the learner to become familiar with all the phonemes of the language easily and quickly and then manipulate them in cognitive and linguistic activities by using them in multi-syllabic words, minimal pairs, rhyming, segmentation, alliteration and sequencing as well as in sentences.

By this stage the learner is competent in the manipulation of the phonemes and is able to monitor his own production. He is now ready to move from the phoneme to the grapheme. The Face Clues assist spelling only as far as they provide an environment where the sounds are heard correctly.

Juel & Leavell, (1988 in Gaylard, 1996), observed that "Students entering first grade without phonological awareness are unable to induce spelling-sound correspondences from print exposure or to benefit from phonics instruction." English is well-known for its spelling irregularities and exceptions. To minimise problems with spelling, the letters of the word are **not** spread out with a letter over

each face, as in English the same letter may represent different sounds. Instead the letters are grouped together as a word and placed over the centre face of the particular group of faces used to produce the sounds or phonemes, which make up that word.

The Face Clues programme takes a few weeks for the teacher to complete and the wall charts are useful as a quick reference and reminder. The teacher can always refer to the Face Clues at any stage as a visual and analytical aid to correctly producing a sound.

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THE USE OF THE FACE CLUES IN SPEECH THERAPY

To date no research has been carried out on the results of using the *Face Clues* system, but my many years of clinical experience working with the *Face Clues* since the late 1970s has proved the effectiveness of this method. The shared experience of many therapists worldwide, who have been working with the *Face Clues* methods in their private practices, have led to the use of the *Face Clues* in many other fields.

Speech Therapists at university, hospitals and in private practice have used the *Face Clues* to assist clients with different communication problems, for example poor auditory discrimination, articulation errors, aphasia, apraxia, dysarthria and with people who have "learning disabilities".

THE USE OF THE FACE CLUES IN THE CLASSROOM

The influx of children into urban schools and the enormous caseload on the teachers has led to many speech therapists working within the schools system. Speech therapists and teachers in the Pre-Primary and Primary School classrooms at Forest Town School, Johannesburg, used the *Face Clues* for Severe Learning Disabled and Cerebral Palsied Children. The use of the *Face Clues* over a period of several months was found to lead to an improvement in the learner's auditory discrimination, speech production, comprehension, reading and writing skills.

The improvement in comprehension occurred because the learner was now able to hear and distinguish between the similarities and differences of the sounds and therefore did not misunderstand a word because he had misheard it. E.g. A child who is unable to discriminate between the words *hut* and *hat* will struggle to follow the teacher and misunderstandings can occur. When the differences between the sounds are brought to the child's attention and understood this in turn can lead to better reading and comprehension and to a limited extent some improvement in spelling skills.

The *Face Clues* were then introduced into the mainstream Pre-Primary and Primary School classroom, where they were used to teach auditory discrimination, auditory processing skills, phonological awareness, phonics as well as analysis, synthesis and sequencing of sounds, words and correct pronunciation of mother tongue language.

Once the *Face Clues* have been mastered in one language it is relatively easy to recognise the faces representing both the familiar and the unfamiliar sounds involved in speaking another language.

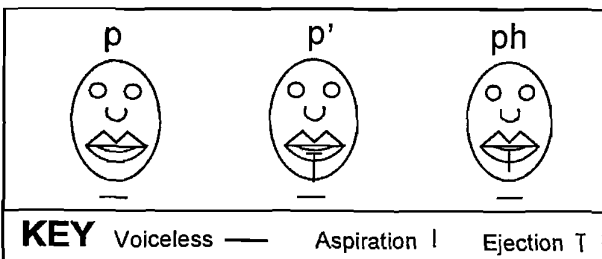


FIGURE 3. A comparison between the /p/ phonemes in English and Zulu. /p/ in English is similar to the /p/ in Zulu when it is preceded by as nasalised sound. /p/ is ejected and /ph/ is aspirated.

TEACHING OF A SECOND LANGUAGE

There are many different languages, yet all of them make use of a surprisingly small number of phonemes. The first essential step in learning a language is to be able to hear and distinguish the different sounds and then to produce them so that we can understand and be understood.

The Republic of South Africa has eleven official languages and at present Primary School learners are required to learn three of them. The *Face Clues* provide the learner with visual assistance in "hearing and seeing" the different sounds and then combining them with language and cognitive skills. This gives the learner a good foundation on which to build his pronunciation and to develop adequate reading, writing and comprehension skills. Mastering these skills will reduce the occurrence of misunderstandings and allow syntax and grammar to be acquired far more readily.

These skills are acquired best from active involvement with the *Face Clues*, which help to make the Pre-School pupil aware and confident in handling the unique sounds of the language being taught. This knowledge is essential before the auditory sounds can be linked and combined with the abstract symbols of the alphabet to form words and sentences.

To understand language and derive meaning, the learner needs to develop a system of sound contrasts and these need to be understood so that the similarities and differences between the sounds will lead to the formation of rules. For example in Zulu there are 3 basic clicks. Although the differences cannot be seen in the shape of the mouth, the *Face Clues* can indicate clearly how they are produced differently.

A Comparison Of The Phonemes Of English, Afrikaans And Zulu.

There are 26 letters of the modern alphabet.

English has 50 phonemes: 11 vowels, 24 consonants 9 diphthongs, 6 triphthongs

In **Zulu** there are 54 phonemes, 5 vowels, 15 clicks and 34 consonants.

In **Afrikaans** there are 69 phonemes, 28 vowels, 11 diphthongs, 8 triphthongs and 22 consonants.

The Influence Of One Language On Another

One of the greatest barriers in learning a second language is the imposing of one's mother tongue language's phonological sound system upon the sound system of another

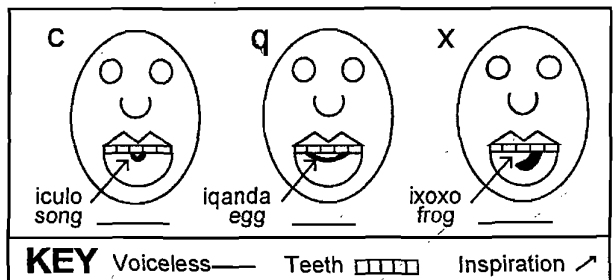


Figure 4 The *Face Clues* showing the differences and the method of production of the 3 main Zulu clicks: /c/ tip-dental click, /q/ blade palatal click and an /x/ side click.

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language. The phonemes of each individual language are not haphazard in their formation, but follow rules and patterns.

There are many subtle individual differences in the way phonemes are produced and they are only regarded as incorrect when the distortion affects meaning. The *Face Clues* allow for individual differences and dialects. The beauty of the *Face Clues* method is that it provides both a stationary, visual model showing the key distinctive features and the input of the teacher as an auditory moving model, who can provide additional information in the form of intonation, stress and tone.

When the English farmer's wife says "Hamba uthatha ikhanda", instead of "Hamba uthatha iqanda," she says, "Go fetch the heads" instead of "Go fetch the eggs". She could cause an economic disaster on the farm.

When a Zulu child first tries to speak English he may initially try to squeeze the eleven vowels of English into his five-vowel system and say, "The sheep sailed into the harbour", instead of "The ship sailed into the harbour," or "The bed flew into the nest," instead of "The bird flew into the nest".

You will understand why a Taiwanese pupil who does not have a /v/ phoneme in his phonological system, was not being rude when he asked if the *Face Clues* could be used to explain the "Bowels of the English"!

CASE STUDIES

Three interesting case studies over-and-above my usual speech therapy cases have been included to show the versatility of the *Face Clues*.

Young Nolan

Nolan was a three-year-old little boy who had a sub-mucous cleft. He was enthralled with AA Milne's Christopher Robin. I wrote out the whole poem of Verspes - "Little boy kneels at the foot of the bed" in *Face Clues*. We used this poem as a vehicle for therapy and he showed it to Professor Hayes of the Ear Nose and Throat Department at the Johannesburg Hospital. He did not believe that Nolan could read the faces. He pointed to words (groups of faces) all over the therapy book and could not catch him out anywhere. Nolan could read the faces aged three years. Following an operation and therapy he ultimately won first prize at his primary School Eisteddfod each of the five years he attended the school.

Three Shangaan Children, Billem, Kloppus, and Trevor.

I used the "*Face Clues*" to teach the three Shangaan children aged ten, eight and six years respectfully, how to speak English. They had come to Johannesburg from a rural area and were not permitted to enter the suburban local school where the medium of education was English unless they could communicate in English.

Within three months they were re-tested and were communicating so well in English that they were accepted at Orchard's School and have all continued

to do well and pass all subjects every year for the last three years. The teacher was amazed that the children did not exhibit the same auditory discrimination problems as the other children in her class.

Keith - A Missionary Doctor

A London missionary doctor, who worked in Uganda, approached me and asked if I could help him teach the Kikonza speaking deaf and hard-of-hearing children in his village to speak. He wanted to understand them and communicate with them so that he could help to heal them when they were ill.

I listened to tapes of the Kikonza language and unravelled its sound structure and then designed *Face Clues* to fit the unique sounds of the language. Keith returned to Uganda and promptly taught a teacher how to use the *Face Clues*. There was no paper in the village so the faces were drawn in the sand with a stick. The children successfully improved their speech production.

OTHER USES OF THE FACE CLUES

Face Clues can be used for correcting the typical dyslexic-type reversals and inversions of written letters e.g. "deb" for "bed" and for the pronunciation of contracted words.

The *Face Clues* can be used with illiterate learners. A well-known passage to the learner is then presented in *Face Clues* for the learner to sound out. This could be The Lord's Prayer, a National Anthem such as Nkosi Sikelela or a similar passage in the particular language being studied.

The words are always presented above the group of faces as a unit and the letters are never spread above each face as this could lead to spelling difficulties. The illiterate person is encouraged to say the words from memory and they find the *Face Clues* are copying the words they are using.

The excitement generated by "reading" the *Face Clues* is unbelievable. Once the learner has mastered this skill his attention is then drawn to the word written above the group of 'Face Clues'. The words are learned before the letters but it does not take long before the individual learns to read and distinguish the letters as sounds, which make up the word.

CONCLUSION

The *Face Clues* can assist with remedial speech therapy, by systematically developing auditory, visual and tactile cues in a holistic manner appropriate to the complex multi

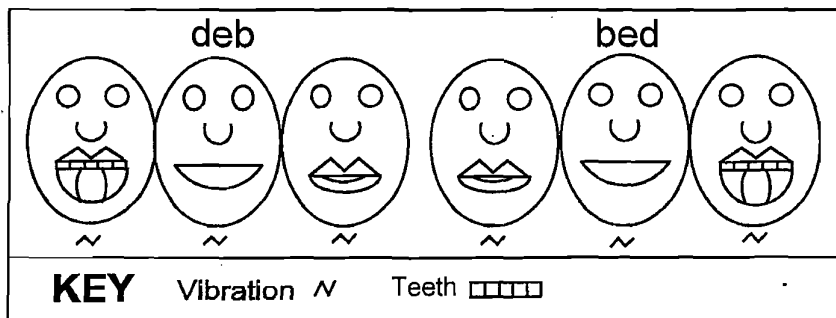


Figure 5 *Face Clues* clearly showing the reversal of /d/ and /b/ in deb and bed.

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modal phenomena, which is language. Additionally, the *Face Clues* develop cognitive skills as the learner becomes aware of the processes involved in producing and interpreting language correctly. By mastering the building blocks of language, the phonemes, learners are better able to learn speech, comprehension and reading skills in their mother tongue and to make the transition to a second language with its demand for the discrimination and production of new sounds. Because the *Face Clues* graphically represent sounds and are consistent within and across languages, they avoid the common difficulties involved in matching the written and spoken word.

RESEARCH

Because of worldwide mobility, the ability to communicate well and often in other languages is essential.

The successful implementation of the *Face Clues* by therapists and teachers in a wide variety of contexts, suggests that further formal research would be of great value. The *Face Clues* are likely to have relevance in the diverse areas of speech therapy, and in developing the auditory processing skills essential to mother tongue and second language learning in the classroom.

ACKNOWLEDGEMENTS

I wish to thank the following for all their assistance. Prof. T. Trail, Department of Phonetics and Linguistics, University of the Witwatersrand. Prof. Wilks, Department of African Languages, University of Pretoria. Prof. N. W.

Bankson, Department of Education, Virginia University, USA.

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