Using Appropriate Language Modes and Explicit Teaching Aids

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Some students learn quickly, and others — just as gifted and intelligent — seem to find it difficult to "cotton on" to the same concepts. Taking into account that one can't do much about the student's capacity to assimilate information, I went exploring to learn about effective teaching and communication strategies that I could adopt. As a result, I changed my own approach and made my teaching more comprehensive and indelible. This article aims to (1) provide a brief review of the method I found most successful; (2) describe its use in the studio; (3) illustrate some practical visual, auditory and kinaesthetic devices that I have developed to clarify obscure ideas; and (4) present my conclusion.

The Neuro-linguistic Programming Model of Communication

The greatest impact on my teaching style occurred when I attended a course in Neuro-Linguistic Programming. NLP is based on the idea that of the five information-gathering processes we use to make sense of our world — Visual (V: all things seen), Auditory (A: all things heard), Kinaesthetic (K: all perception of sensation), Gustatory (G: things that are eaten) and Olfactory (O: things that are smelled) — most people preferred one or two modes of assimilation over others. (I have used founders Richard Bandler and John Grinder's categories in this article for ease of reference.) According to Bandler and Grinder, the three most popular modes were V, A and K, and they maintained that communication was dramatically enhanced or eroded by the amount of congruence between language styles of speaker and listener.

However, they found that people tended to converse in their own preferred mode. For example, highly visual people were reported as saying things like "He looked bright and cheerful", whereas auditory preferred "The old lilt was back in his voice" and kinaesthetic "I sensed that he felt better", when making the same observation. In addition, informal NLP tests indicated that when a highly auditory person used predominantly A language to a highly visual person, some information was lost, compared with that spoken in A language to an A listener (for instance). Therefore they concluded that when two people used the same preferred language mode, information was assimilated and recalled more accurately. Bandler and Grinder also alleged that learning was more indelible when information was provided using all three V, A and K examples for each event, rather than only one mode. As a result, they based their teaching and therapeutic methods on the premise that congruent language was a vital element in really being "on the same wavelength", and that providing all three V, A and K experiences for each event was most likely to ensure the accurate recall of information.

When I followed this approach I had remarkable results — especially when I used kinaesthetic language with one highly kinaesthetic student, instead of explaining concepts in visual language (my preferred mode).

Using VAK Language in the Studio

At that point, I began studies that introduced me to the writings of controversial voice teacher Ernest George White (1863–1940). White's work was rejected by other teachers, even though doctors sent him their patients because of his success with voice enhancement and restoration techniques (Dunbar-Wells, 1995, 1997, 1999). Although my research indicated that White's basic anatomical theories were in error, it seems that his communication technique successfully focused vocal tone energy away from the vocal folds. This left them flexible and without undue stress — essential elements for the use of vocal strategies that will not damage the voice. Over a hundred letters from students testified to the success of White's teaching method, which was explained to me by a former student, voice teacher and educator, Arthur Hewlett (97 years old at the time, now 101). White always systematically used V, A and K instruction to describe each new concept. He clarified information by showing a sectioned and hinged human skull (currently housed in the Archives at the University of Reading). He would point to exactly where he wanted vibrations to occur (V), provide an example of the preferred sound (A) and describe the sensations he wanted the students to feel (K). He also elicited feedback to ensure that instructions had been correctly interpreted. (This method predated Bandler and Grinder's findings by over 40 years.)

I then found that English researchers Welch and MacCurtain (1986) also used a VAK approach. They undertook the case of a professional countertenor who had experienced vocal dysfunction after he was punched in the throat and face. When the physical damage healed, he still could not sing, and it was concluded that his original technique had been replaced by inhibiting strategies. They

commenced treatment with breathing exercises that restored relaxed, flexible physical behaviours, which encouraged confidence in the singer. Focus was then concentrated on the relaxation of specific, tense muscles of the "spine, shoulders, jaw and tongue-root … [but] the crucial permeating factor was thought to be the development of adequate feedback systems" (p. 195). As a result, the singer was asked to look in the mirror to correct any tension in the neck, jaw and face, as well as general posture, and to observe the tongue's relationship to the soft palate and teeth. He also watched the results of his singing through graphic representations provided by the electro-laryngograph, and his previous recordings were played to him so that he could receive auditory feedback from his former sounds. When any improvement was noticed, the singer would attempt to use the same approach in other parts of the voice, but was often unable to avoid a sense of striving. To distract his attention from tense behaviour when singing, he was asked to make horizontal gestures. The treatment was successful, and the singer returned to his profession.

The only other time I encountered a consciously applied VAK teaching pattern was when I visited the Princess Alexandra Hospital, Brisbane, to learn more about voice problems and their solutions. The pathologists described the causes and effects of voice dysfunction, showed me life-like models of the larynx and vocal folds and pointed out the exact area of damage in each case. They also played me the sounds of the damaged voices under discussion and encouraged me to recreate (briefly) the feelings of constriction or stress that caused the conditions, and compare these with my own undamaged responses.

My exploration became doctoral studies (Dunbar-Wells, 1997), and responses to a questionnaire I conducted indicated that:

- the modern voice teachers assessed used one or two of either V, A or K explanations for a new concept, but none reported systematically used all three modes to clarify and reinforce the same idea
- although a few teachers reported showing books and charts or drawing diagrams, none reported using representational working models
- very few asked students for feedback, to make sure that the information was really understood.

From this research I deduced that more information needed to be disseminated to teachers regarding the effectiveness of using VAK procedures, and that the need for feedback from the student was crucial for checking that instructions were being assimilated accurately.

Simple VAK Devices to Help Clarify Obscure Ideas

After restructuring my language/teaching patterns, I set out to acquire appropriate VAK models. The available proprietorial lines were very expensive, so cheaper alternatives were required. I wanted (a) visual models by which I could demonstrate mouth and tongue behaviours, (b) a model that would show the importance of diaphragmatic action, and especially demonstrate the need to relax the abdominal muscles on inhalation, (c) videos and graphic representations of physiological events such as vocal fold gestures and posture, to make them more vivid and meaningful.

Visual Aids

Mouth and Tongue Models

My dentist presented me with a plaster model of the upper and lower jaws and teeth, complete with a metal frame that allowed the "jaws" to be opened wide (Figure 1). It then became easy to demonstrate where tone vibrations and energy could be focused.

I molded four Blu-Tack tongues into shapes that I believed caused distortion or obstruction of tone, a friend then coated them in papier maché and painted them pink, which kept them solid and rigid. When they were placed onto the floor of the mouth they unambiguously showed the inappropriate positioning. I kept two blue tongues flexible. The first represented the normal shape of the tongue when relaxed, while the second could be manipulate at will (Figure 1). I made sure that the "normal" tongue traveled down into the "throat" of the model, to accurately represent its extent — always a great surprise to my students, as it was originally to me.

The Behaviours of "Lungs", "Diaphragm" and "Abdominal Muscles"

One of my students made a model in her science lesson depicting the respiratory system. She took a 2 L orange juice bottle and cut off the bottom. A thin plastic pipe (the trachea) was then inserted through a hole in the cap at the neck of the bottle, and through

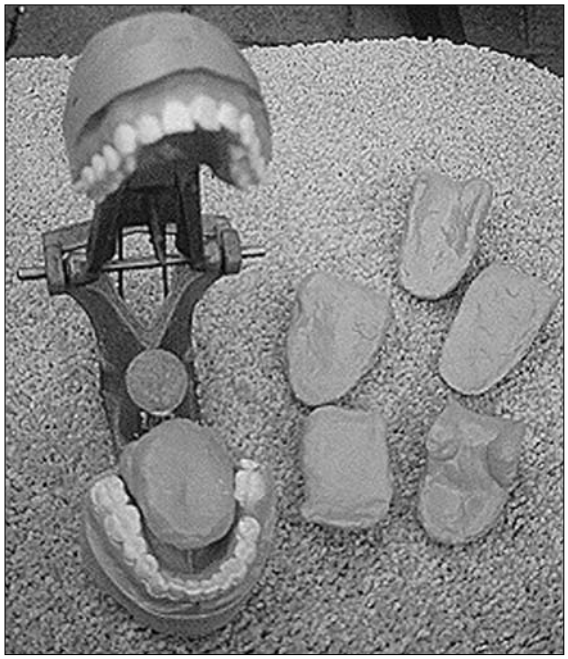

FIGURE 1
Teeth and tongue model.

a hose double-adaptor (the larynx) that led into two small balloons (the lungs). She then sealed the bottle to make it completely airtight. The plastic pipe was sealed into the neck of the bottle with Yellow-Tack (a variation on a theme!) and the bottom was sealed with part of a large rubber balloon (the diaphragm) which was attached by masking tape (Figure 2). When the "diaphragm" was gently pushed up with the fingers, the air was driven out of the "lungs" and they deflated (exhaled), and when the pressure on the "diaphragm" was released and it returned to its dormant position, the "lungs" spontaneously inflated again (inhaled). The model is far from adequate to demonstrate the whole breathing concept, but it opens the doors to further research into the intricate musculature and posture behaviours necessary for breathing. This can be found in the works of people such as Johan Sundberg, Richard Miller and Ingo Titze.

Nevertheless, the model fulfilled my particular need, which was to correct the most prevalent, basic misconception about breathing. I found that at the first lesson, many people — including asthmatics and those with voice problems referred by medical specialists — pulled their abdominal muscles towards their spine when inhaling. This stemmed from childhood training to "stand up straight, pull in your stomach, and pull your shoulders back" — in my experience, a recipe for disaster for unrestricted breathing and healthy vocal tone. The problem is that when the abdominal muscles are pulled towards the spine the intention is for the upward displacement of the abdominal contents to help the diaphragm to rise and so aid exhalation. When the pressure under the diaphragm is released (that is, when the abdominal muscles are relaxed) the diaphragm lowers and the lungs inhale automatically. When "reverse breathing" occurs

FIGURE 2
Model of the respiratory system.

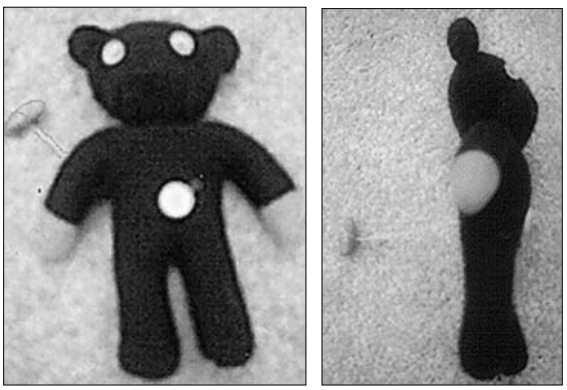

FIGURE 3 AND FIGURE 4
Mr Bean's teddy, plus toggle.

(i.e., the abdominal muscles are drawn inwards on inhalation) the body is acting to breathe out, while the need is to breathe in. Because of the difficulty of getting a relaxed, unrestricted breath of air under these conditions, the shoulders rise and the chest, neck, tongue and jaw muscles tense to compensate. In my opinion, the resultant loss of flexibility produces a restricted, harsh or strained vocal tone, with pressure on the vocal folds that may lead to dysfunction. Phrasing suffers also, as the inhibited muscles prevent a free passage of air for the desired duration.

Abdominal Exercise Model

A Mr. Bean teddy (Figure 3) came in handy to demonstrate the form of breathing I teach. A button representing the navel had a string attached to it, which passed through the doll's body to come out at the back, with a toggle button to hold on to. When the toggle was pulled, the string caused the "abdomen" to draw towards the back (breathing out). When the toggle was released the "abdomen" automatically returned to its normal position (spontaneous or "rebound" inhalation; Figure 4). The instructions were therefore very graphic and easy to replicate: "slowly and gently draw your abdominal muscles towards your spine to breathe out, and then relax them to breathe in".

Observing Vocal Fold Gestures

Books, photos, posters and diagrams that detail anatomy can often be found in bookshops with a medical section, and can also be downloaded from the Internet (Figures 5, 6 and 7). The vocal folds are on the net in all their glory, and a video of the folds in action, with sound, can be obtained from www.upmc.edu/upmcvoice/videofiles/normal.mov. The program Quick Time needs to be downloaded to view this, but can easily be accessed by typing "Quick Time" into your search engine (Google, for example). Download the free version and follow the instructions.

Posture

Upright, relaxed posture can be illustrated by the purchase of a cheap little plastic skeleton from

a toy shop. When a thread is attached to the head, the skeleton can "dangle from the ceiling" rather than "stand up straight" from the floor (Figure 7). For those who shudder at the thought of such an archaic approach — please try it. It really works. Of course, it is important to move on to the accurate descriptions that are provided by experts through the literature.

A Simple Explanation of Comprehension Procedures

When students want to make observable progress every week they become frustrated because they don't. They are told that learning doesn't work that way, and I bring out a small jigsaw puzzle mounted on cardboard. Some of the pieces are missing, and stuck to the side of the cardboard by — yes, Blu-Tack (or even Yellow). These can then be fitted into the appropriate spaces to show how we fill in missing bits of information as time goes by, until the whole picture develops. More sophisticated, detailed explanations can be found in any university textbook on cognition, and most libraries will obtain and loan books not in stock.

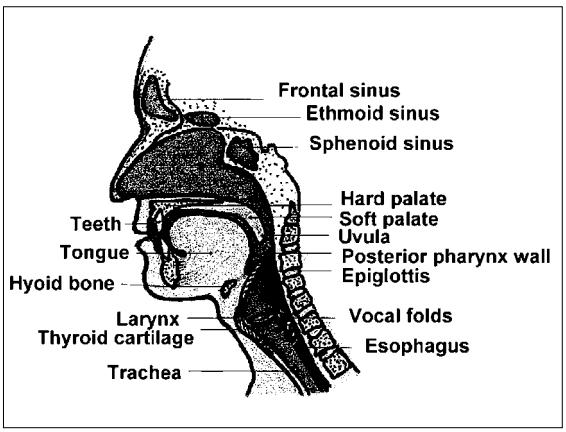

FIGURE 5

The sinuses, tongue, larynx and other areas of the head. From Dunbar-Wells (1997).

FIGURE 6

The vocal folds open for inhalation. Photo reproduced with permission from Dr John O'Neill.

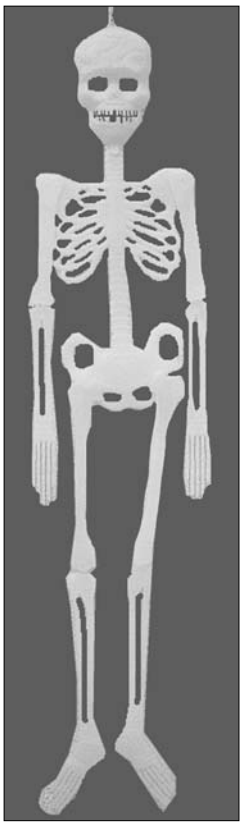

FIGURE 7

Skeleton.

Two-dimensional Physical Representations

A book called *The Human Body* (Miller & Pelham, 1983) provides a two-dimensional, representational view of the head and neck, the body, the lungs, joints and muscles, eyes and ears. When you open the book, the models pop out at you, and you can open the chest and abdominal muscles to see what lies within. You can then open the rib cage to view the lungs, the heart, the veins and arteries and diaphragm. The larynx and vocal folds are also there. This is a very instructive and effective visual aid which my students find fascinating and easy to understand. It is a good introduction to more advanced information as the students develop.

A Three-dimensional Lip Shape Aid

Blu- (or Yellow) Tack can be used to describe activities. For instance, "lips" can be pressed into many shapes. So the student who sings "yew" for "you" can easily be shown the shape of the lips, not only in both positions, but also from within. It's such a common error that I made a model of both lips positions and painted them red, then mounted them on cardboard with a "Robin Hood" type purse below (Figure 8). When students sing "yew" I show the lips from outside and inside, and ask them to pull the draw-strings of the purse to unbearable tightness. Then they loosen the purse "lips" to the desired tension, or let it become slack to show how "too slack" looks and feels. The

FIGURE 8
'Yew' model.

tactile experience seems to translate across to their understanding of tension in the lips.

Useful Internet Downloads

Helpful Internet teaching aids can easily be found by typing key words into a search engine, and then following the links (the underlined addresses of web sites) to whichever site suits your needs. (For example, for the vocal fold video I typed "vocal fold video" into Google, which brought up quite a number of links to click on and view.)

Teaching hospitals are usually very happy to give permission for use and reproduction of their material if there is acknowledgment of the source. Their email address is usually provided on the site. (Type the name of the hospital into the search engine, or type in the disorder — for instance "vocal nodes". The results are usually provided by reputable hospitals and clinics.)

Auditory Aids

Auditory examples are also easily accessed, apart from those we may sing ourselves. Students can hear their own voices when they are tape, computer or mini-disc recorded, provided the recorder's fidelity is reliable. They usually hear the difference in sounds if the technical aspects are pointed out. Of course records and videos of famous singers also present auditory and visual experiences that are helpful, as long as the student doesn't rigidly configure muscles to try to imitate the voice being heard. Videos of the student can also be made, but need to be handled cautiously. I remember wanting to give up singing when my teacher first videoed me, I thought it was so horrible. It took some smart talking to get me to come back to the studio. Libraries will usually lend you records, even if they have to borrow them from another library.

Kinaesthetic Experiences

I wanted to find some way of giving students kinaesthetic experiences of the vibrations caused by their voice. Having observed the intricacies of the spectrograph, I opted for a simpler way of demonstrating whether vibrations were adequately "forward" or "backward". I discovered that when the tone was placed forward in the face, a polystyrene beaker (Figure 9) held just in front of the mouth vibrated so that the sensations could be felt by the hands. The further back the tone was focused into the throat, the less the beaker vibrated. The model makes it very easy to demonstrate resonance, and the students can check themselves out during practice at home.

Following the same principle, a piece of thin airmail paper folded over a comb and held loosely (Figure 10) vibrated only if the voice was forward, particularly on an "oo" vowel. These simplistic methods also captured the interest and sense of fun of the students, who told me they enjoyed practising with them. They are not meant to take the place of more sophisticated methods as students progress, but they're a handy beginning. I would caution about overloading students with complex explanations of (to them) new ideas and sensations. In my opinion, although it is important to teach the students "the truth", it is more important to give them appropriate experiences with which they can identify to begin with.

Conclusion

I'm sure there are plenty of other helpful ideas we could all share. But please take into consideration the main themes of this paper: language modes need to be congruent, and each new concept will be more vivid and indelible if explained through all three visual, auditory and kinaesthetic modes.

FIGURE 9
Beaker.

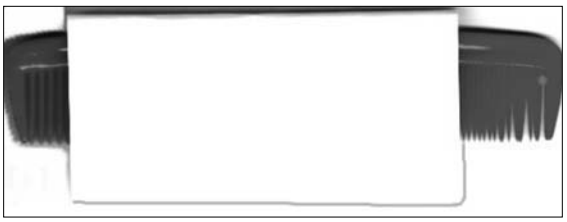

FIGURE 10
Comb and paper.

Asking for feedback is also vital to preventing misunderstandings.

Author Note

Copies of my doctoral thesis and other articles and information can be obtained by contacting ros@dunbar-wells.com, or downloaded from www.dunbar-wells.com and http://groups.yahoolcom/group/singersinfo

Other invaluable resource sites are www.vocalist.org.uk; www.voice.northwestern.edu; www.upmc.edu/upmcvoice/Normal.htm; www.upmc.edu/upmcvoice; www.enhanted learning.com

References

Dunbar-Wells, R. (1997). *The relevance of metaphor in voice teaching: A comparative study of Sinus Tone Production and vocal cord theories*. Unpublished doctoral dissertation, University of Reading, England.

Dunbar-Wells, R. (1997). *The relevance of metaphor in voice teaching: A comparative study of Sinus Tone Production and vocal cord theories*. Unpublished doctoral dissertation, University of Reading, England.

Dunbar-Wells, R. (1999). The relevance of metaphor to effective voice teaching strategies. *Australian Voice,* 5, 50–59.

Miller, J, & Pelham, D. (1983). *The Human Body*. London: Jonathan Cape Limited.

Welch, G., & MacCurtain, F. (1986). The use of an objective measure in teaching singing (Xeroradiographic-electro-laryngographic analysis): A case study with controls of counter tenor voice trauma and rehabilitation. *International Music Education,* XIII, 192–199.

Roslyn Dunbar-Wells studied singing in Sydney, London, Munich and Vienna. She has given over 4000 classical and semi-classical concert, theatre, radio and television performances, with principal roles in oratorio and opera, musical comedy and operetta, in Australia, America, England, Germany, Japan, New Zealand and the Philippines.

She is a singing teacher, lecturer, eisteddfod adjudicator, music reviewer, author and psychologist. Roslyn taught at the Sydney Conservatorium of Music and moved to the Queensland Conservatorium of Music, lectured on the psychology of singing in universities in Australia, America and England, conducted workshops and master classes, examined for the Australian Music Examinations Board, was arts critic for the Gold Coast Bulletin newspaper and also for the Australian Broadcasting Corporation and the Quest Group of newspapers in Brisbane.

In 1997 she earned her PhD (Music Education) from the University of Reading, England, for her research into safe voice teaching techniques and effective communication strategies.

She now lives on the Gold Coast, and is finishing her interactive CD and book, *An A to Z for Singers*©.