

DESIGN AND DEVELOPMENT OF AN EMOTIONAL
MANAGEMENT WORKSHOP: TONING EFFECTS
ON ATTITUDES OF ADULT YOGA STUDENTS

A Project

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In

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This work is dedicated:

*To my late father, Phillip, who continues to
inspire me from the immortal realm.
Thank you for showing me how to appreciate
the little things in life, to whistle or hum,
to lighten my load, to take life in individual servings,
and to give people the benefit of the doubt.*

*To my mother, Fedora, whose never-ending
faith in God has kept our family united in love,
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my soul through music, song and dance;
for showing me how to embrace life
not only with the mind, but with the heart.*

*To my sisters, Roxanne (Roxy), and Juanita (Nita),
for being the spice in my life, for showing me
what confidence and courage look like.
Thank you for your unconditional love and sister-ship,
you are truly the keepers of the light that brighten my world.*

*To all those who struggle with voicing their
soul and to those I hope will learn to appreciate
their miraculous God-given instrument; the gift of voice.*

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ABSTRACT

DESIGN AND DEVELOPMENT OF AN EMOTIONAL MANAGEMENT WORKSHOP: TONING EFFECTS ON ATTITUDES OF ADULT YOGA STUDENTS

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Improving the chanting component of a yoga class for a yoga practitioner was one of the primary goals of this project. The other was to provide the yoga practitioner and prospective yoga students an introduction to toning, its benefits, and its relationship to and management of their own emotions.

A Nine Elemental Instructional Design Model (Morrison, Ross & Kemp, 2001) was used to develop an introductory educational unit on the topic of *toning*, a foundational technique that underlies chanting. The unit was used in conjunction with collaborative and experiential learning activities in a workshop format. A biofeedback system for vocal profiling was used to analyze and generate participants' voice prints before and after toning. The prints displayed a quantitative outcome and offered

participants real-time measurement of the frequency imbalances within their own voices. Participants were then introduced to the relationship between toning and emotion through emotional aspects associated with the frequencies in their voice prints and by applying a prescribed tone via the toning technique learned in the workshop to augment those frequencies that were out of balance.

Complementary instructional materials were developed for the workshop consisting of an Administrative/ Instructor Guide, PowerPoint Presentation, and two handouts: 1) Emotional Characteristics of the Notes, and 2) Toning and Emotional Management Guide. The workshop was developed as a prototype, and a formative evaluation was conducted during the workshop to determine what effects toning had on the attitudes of adult yoga students, as well as how effective the workshop activities were delivered to the target audience.

The project's results revealed two main findings: 1) positive reactions from participants and the instructor during and after the pilot run of the workshop, and 2) the time allowed for the workshop was insufficient.

The project established the workshop prototype as a demonstration of how the workshop would look and work and what could or would be produced as a final deliverable. If given sufficient time, the *Toning and Emotional Management Workshop* has the capability of delivering effective instruction on the subject of toning. It also has the ability to engage, influence, and attain learners' satisfaction with varied activities, and attractive user-friendly materials.

CHAPTER I

INTRODUCTION

*Many say that life entered the human body by the help
of music, but the truth is that life itself is music.*
Hafiz, Persian Sufi Poet

Statement of the Problem

This project consisted of the design and development of a workshop on the subject of Toning for Emotional Management. It was designed for Dr. Paula Barros, who was also on board during development of the workshop as one of the subject matter experts. Two years after earning her degree to become a Doctor of Chiropractic from Palmer West Chiropractic in 1985, Paula established Clear Creek Healing Center in Butte Valley. A certified Yoga Instructor; she is registered with Yoga Alliance and has affiliation with Anusara Yoga. Paula has been practicing and teaching yoga since 1976 and said her philosophy is “living life to its fullest and being healthy in body, mind, and spirit” (P. Barros, personal communication, August 1, 2006). Paula’s desire to incorporate sacred sound and chanting in her yoga programs piqued the designer’s interest in wanting to partner with her for the development of workshops on this subject.

The activities for this initial workshop were based on a combination of techniques from several renown experts such as *Toning* pioneer, Keyes (1973); Endocrinologist in the field of Mind Body Medicine, Chopra (1993); Sound Therapists

in the field of Vibrational Medicine, Beaulieu (1987), Goldman (2002), and Andrews (2004); Emotional yoga philosophy from internationally renowned yoga instructor; Bennett (2002); From the field of Vocal Profiling, Kae Thompson-Liu (2002) and Sharry Edwards (2005); and former California State University, Chico, Voice and Music Professor, Jeffrey Gemmell (2006). What makes this workshop different from other toning workshops is that vocal profiling was used to show how toning is linked to the emotions, and how through toning, emotions can be managed.

Research conducted by the Institute of HeartMath reported that in educational institutions students are encouraged to focus on cognitive skills but there is nothing in place to teach them about managing their emotional issues; issues that are often tangled within their life at school. Their research further points out that emotional intelligence, once a new concept, now has become more widely used and understood in the past decade. There is a realization among educators that students' cognitive abilities are no longer the only measures of students' aptitudes that will determine whether or not they thrive in society today. Researchers at HeartMath believed the degree to which students' cope effectively with the challenges and obstacles in their lives is the degree to which they are experienced in managing their emotions (Science of the heart, n.d.).

This project was an opportunity to address the challenge of emotional management. As previously stated, the workshop was designed for Barros, who was seeking to improve the chanting component of her yoga classes. More specifically, the workshop attempted to: 1) provide training on a particular aspect fundamental to chanting called *toning*, 2) analyze *voice prints* to show the relationship of toning to the emotions, and 3) serve as a platform to evaluate the instruction and the target audience's attitudes

toward the subject matter. Additionally, an administrative guide and corresponding instructional materials were developed to enable any qualified instructor to replicate future workshops.

Purpose of the Project

Why develop a toning workshop? Before addressing this question, a definition of the term *workshop* is provided here for clarification. In this project, the term *workshop* refers to what Brooks-Harris & Stock-Ward (1999, p.6) defined as “a short-term learning experience that encourages active, experiential learning that uses a variety of learning activities to meet the needs of diverse learners” (as cited in Myers & Roberts, 2004).

Therefore, a toning workshop was developed because like singing, the act of toning is experiential; its process involves the production of extended vocal sounds on a single vowel and engages not only the breath and voice apparatus but the entire body’s physical, mental, and emotional states simultaneously, hence, execution of toning assumes performance-base learning, which requires a collaborative learning environment that allows for practice and feedback, coaching, and reflection.

In their three part study, Herrington & Oliver (2000) found literature related to situated learning environments that suggested “useable knowledge is best gained in learning environments” emphasizing characteristics such as, authentic contexts and activities, model performers and/or processes, learning through cooperating with others, reflection, mentoring and authentic assessment (Herrington & Oliver, 2000, p.25). Based on the definition given for this project, the *workshop* format provided a viable avenue for developing a suitable experiential learning environment for toning.

The primary purpose of the project was to improve the chanting component of the yoga classes. The designer created an introductory educational unit on the topic of toning as a fundamental step to chanting which was used in conjunction with collaborative and experiential learning activities to give participants the opportunity to learn and practice the technique of toning both independently and collectively.

In addition, what Mager and Pipe (1997, p. 4) coined as WIIFM “What’s in it for me?” was factored into the instructional strategies to get learners’ attention and to address learners’ attitudes. This was done by providing personalized voice prints for each participant. The voice prints were used to help participants understand the relationship between their toning performances and their emotions. Furthermore, to test the effectiveness of the workshop in terms of design, delivery, and learner’s attitudes, formative evaluations were conducted during the design and development process and during and immediately after its pilot run.

Scope of the Project

The designer developed a two and half-hour workshop for Dr. Paula Barros, a chiropractor and yoga practitioner for over 25 years. The goals of the workshop was to teach Barros, and her yoga students a specific toning technique fundamental to chanting, and to explore the emotional benefits of toning as a complement to the existing concept of *Emotional Yoga* (Bennett, 2002) already integrated in her yoga classes. If fully implemented, the workshop instruction potentially could be added to Barros’ annual yoga certification curriculum.

The content of the workshop was developed for beginning, intermediate, and advanced level yoga students who had little or no experience with chanting or how to perform the basics of chanting. As a result, instruction about toning was developed as an introduction to chanting with the assistance of SME, Dr. Jeffrey Gemmell, currently Professor of Music and Voice/Choral Director at Millersville University in Landisville, Pennsylvania. In addition, an Administrative/Instructor guide, correlating PowerPoint slides, and two handouts were designed to assist Barros' facilitation of the workshop. Finally, using Barros' yoga studio provided an authentic environment to conduct the workshop and proved economical and effective for the execution of the overall project.

Significance of the Project

A biofeedback computer program for vocal profiling was introduced into the design of the workshop as a means to analyze participants' voice prints before and after their toning performance, thus bringing a novel and unique experience to the participants. Moreover, the intended purpose of the workshop was to assist participants in the management of their own emotions through toning. Thus, using a vocal profiling program that provided immediate feedback about the impact toning had on participants' emotions was a motivational factor towards this end.

The biofeedback program used in this project was based on research by Sharry Edwards (2005), who created the science of Human BioAcoustic Vocal Profiling (HBVP) in 1982. Edwards asserts that this science, "identifies the stressed frequencies of the voice, . . . which in turn can be used as a tool to identify and interpret the dynamic,

complicated frequency interactions within the body” (Edwards, 2005, *BioAcoustic Basics*, para. 1) .

Unlike current toning workshops based on mind-body-spirit principles or workshops that emphasize only biofeedback devices based on mind-body-spirit principles, few have combined both toning and biofeedback and fewer still have used biofeedback specifically designed for analyzing the voice in order to demonstrate the relationship between toning and the emotions. Toning falls within the discipline of sound therapy, which deals with sound as energy or frequencies and seeks to balance those frequencies within the body to bring about healing at the mental, physical, emotional and spiritual levels.

Most of the present day research on existing toning-based workshops lacks immediate feedback and an efficient means of providing participants a method for determining whether toning techniques are having an effect on them. According to Danskin and Walters (1973), “biofeedback, is the instantaneous presentation of information to an individual about what is happening in certain of his or her ongoing physiological processes” (Danskin & Walters, 1973, p. 633). The biofeedback program used in this workshop offered participants a real-time measurement providing immediate and objective feedback. For instance, participants were able to visually see the quantitative outcome of their experience when they each received their own voice print displaying frequency imbalances within their own voices. Then, they applied a prescribed tone via the toning technique learned in the workshop to augment those frequencies that were out of balance.

Intended Effects

The designer's intended effects were accomplished through the development of learning objectives customized for participants to: 1) recall facts and concepts of toning, 2) identify the cycle of emotions, 3) learn and apply a toning technique, 4) experience a vocal profiling process, and 5) interpret their own voice print results.

Using a workshop format proved to be an effective means for performance-based experiential learning and served to house the varied activities developed for teaching toning. Moreover, conducting a needs assessment before designing the workshop, as well as, performing several formative evaluations during the workshop's design and development process ensured participants' appreciation for the concept of *toning* for emotional management. See details in the Results chapter.

Limitations of the Project

Though the scope of this project provided many opportunities for unlimited treatment of the design and development of the workshop nevertheless, as the project evolved limitations became obvious and are addressed as follows:

Content Limitations

The term *toning* as used in this workshop is related to the word *intone* which means "to utter in musical or prolonged tones" (*intone* Merriam -Webster Online Dictionary, 2010, p. 1). It is not to be confused with the word *tone* which is used in other disciplines to describe intensity, appearance, color, or timbre. For this project the term *toning* was limited to a combination of definitions from several sound therapists as *the conscious elongation of a sound using the breath and voice for the purpose of release*

and relief, balance, and expression (Beaulieu, 1987; Campbell, 1989; Goldman, 2002; Keyes, 1973).

Resource Limitations

Though conducting a voice analysis on a participant took only five minutes to complete, the set-up required a computer with the proprietary vocal profiling software program installed. The software and computer equipment needed for a workshop of this kind involved a cost beyond the means of the designer. Only one vocal profiling software program was used, consequently limiting the number of workshop participants to four.

While voice analysis programs are primarily used as diagnostic tools in such fields as nutrition, naturopathy, and speech therapy to address various health issues, this project used only the program's visual display to observe frequency distortions in each participant's voice.

Assessment Limitations

Securing volunteers for more than one hour proved to be a challenge, therefore, the designer offered participants a monetary award of \$25 for their participation in the workshop and its evaluation activities.

Production Limitations

The nature of a performance-based workshop demands personal attention with the instructor. In terms of delivery, limiting this workshop to four participants proved effective for Barros' comfort zone since it was common for her to conduct yoga certification workshops with four to six participants, allowing her more time with each participant. Nevertheless, this limitation contributed to the project's small sample size.

Definition of Terms

Biofeedback

“The instantaneous presentation of information to an individual about what is happening in certain of his or her ongoing physiological processes” (Danskin & Walters, 1973, p. 633).

Heuristic

Exploratory problem-solving techniques that utilize self-educating techniques (as the evaluation of feedback) to improve performance (heuristics, Merriam -Webster Online Dictionary, 2010).

Musicality

Pertains to “the sum total of felt qualitative aspects in musical expression that can move and nourish the listener on a deep level going beyond measurable elements such as timbre, phrasing, variation in speed, etc.” (Perret, 2004 , p. 327).

Toning

The conscious elongation of a sound using the breath and voice for the purpose of release and relief, balance, and expression (Beaulieu, 1987; Campbell, 1989; Goldman, 2002; Keyes, 1973).

Vocal Profiling

The process of identifying stressed frequencies of the voice (Edwards, 2005, BioAcoustic Basics, para. 1)

CHAPTER II

REVIEW OF THE LITERATURE

Introduction

The apparent multitude of stress related disorders that permeates society and affects one's ability to learn and function effectively has been the impetus for many people to reorient their lives toward a happier, healthier lifestyle. The need to connect with body, mind and spirit and find a balance within and about one's being is becoming more and more necessary than ever before. The ancient healing tradition of Yoga is answering the call of millions who have embraced the movement as a lifestyle as well as an exercise choice. "More people turn to yoga to alleviate pain than for any other reason" (Sparrowe, 2002, p. 58).

Along with the widespread interest in yoga, sound and music as therapeutic tools are being unearthed today as effective means in the overall support of physical mental, emotional and spiritual health. Russill Paul (2006), author of, *The Yoga of Sound: Tapping the Hidden Power of Music and Chant*, offers a contemporary platform that brings together thousands of years of research showing the relationship between the physical, psychological, and spiritual properties of sound within the context of the yoga of sound philosophy (2006). Similarly, author Patrick Bernard (2004) who, in his book, *Music as Yoga* asserts that the influential effects of all types of sound on peoples' lives cannot be ignored. He maintains, "Whether we like it or not, whether we are conscious

of it or not, this vibrating force pervades us” (Bernard, 2004, p.32). Still further research about frequency, energy and vibration, all terms that are related with the marvel of sound, show up in many scientific works such as psychoacoustics, which deals with the psychological effects of sound. More specifically, science has now been able to show that all matter consists of vibrating energy that can be measured by finding its frequency.

For instance, the teeth and bones of the body vibrate at low and very slow frequencies because they have the most physical density. On the other hand, blood and fluids of the body vibrate at faster frequencies. Still, at even faster and higher frequency rates are thoughts and emotions respectively. Though these frequencies are inaudible to the human ear, nonetheless they influence one’s whole being (Perry, 2007).

In his book *The Roar of Silence*, Don Campbell (1989) , quotes Novalis, a German poet-philosopher, “Every disease is a musical problem. Every cure, a musical solution” (Campbell, 1989, p. 63). According to Campbell (1989), to arouse the health and vigor of the body is typically what to *tone* the body means. He suggests that vibratory sounds made within the body bring benefit to the body itself and may be prescribed in much the same way that a prescriptive *tonic* can bring the body into balance (1989).

Thus, sound and music used as vibrational medicine can influence the healing of one’s body, mind, and spirit. Moreover, this healing can be achieved through the instrument within an individual; her or his vibrational voice. This vibrational voice gives rise to the multidimensional aspect, such as harmony and healing, of the voice called *toning* (Perry, 2007).

Another trend that is shaping people’s lifestyles is the advancement of computer technologies. Computers now have the capacity for sophisticated, media-rich,

interactive sensory experiences making it possible to monitor physiological responses through biofeedback. Psycho-physiologist, Stephen Wall (2001) designer of a biofeedback device called the *Bio Integrator* declared that enhancing one's life is possible from a more holistic, systems-oriented approach "in a reliable, non-invasive, and completely self-directed manner through biofeedback training" (Wall, 2001, para. 2).

So, what do yoga, vocal toning, and biofeedback have in common? They comprise the major components of a workshop on emotional management, which is the focus of this project. At the heart of this project is the spirit of the yoga of sound philosophy and the designer's hope that participants will let go of unhealthy emotions and discover the harmonious relationship of their body, mind, and spirit through the art of toning.

The project attempts to answer the following research questions: 1) what are the effects of toning on the attitudes of adult yoga students? And, 2) how effective are workshop activities for delivering the topic of instruction to the target audience?

The following literature review supports the rationale behind the project and consists of five sections: 1) Toning (Goldman, 2002; Keyes, 1973), 2) Emotion (Bennett, 2002; Chopra, 1993), 3) Toning and Its Relationship to Emotions (Perry, 2007), 4) Vocal Profiling, (Edwards, 2005) and 5) the Instructional Design Process (Morrison, Ross, & Kemp, 2001).

While reviewing literature related to the topic, databases of preliminary sources were consulted such as, the Educational Resources Information Center (ERIC), and the Current Index to Journals in Education (CJIE). Other sources included Journal of Applied Psychophysiology and Biofeedback, Journal of Bio Acoustic Biology (JBAB),

Music Education Research, Journal of Alternative & Complementary Medicine, and Yoga: A Yoga Journal. Some of the descriptors were: “adult learning,” “attitudes,” “biofeedback,” “educational strategies,” “emotion,” “music,” “sound therapy,” “vocal analysis,” “workshop activities,” and “yoga.”

Toning

Toning is not a new concept. Considered as a primal singing gesture (act, response, impulse), it is reflected in the instinctive utterances, desires and urges expressed throughout human history, such as birth cries of an infant (Ware, 1998). Referring to singing in its primal state as an ancient form of human speech, researchers and professors of vocal pedagogy, Frederick Husler and Yvonne Rodd-Marling (1965), in their book *Singing: The Physical Nature of the Vocal Organ*, noted that:

In all probability, man was gifted primevally and throughout an endless span of time with a singing voice (it had as yet no connection with even the simplest form of music) which he possessed long before he was able to speak. (1965, p. 2)

From a historic perspective, toning was considered the oldest form of healing in many ancient cultures, such as, the Aztecs, Mayas, Egyptians, Persians, Greeks, American Indians, East Indians, Tibetans, and the Chinese. Chinese healers would strike thin flat pieces of jade from which emitted various musical tones. The Tibetans regarded the tones of F-sharp, A and G to be highly powerful and sacred. Moreover, many of these ancient societies believed that *Om*, *Aum* and *Amen* represented “all the sounds the human voice was capable of expressing and manifesting in the physical world” (Andrews, 2004, p. 4).

Music therapist, John Beaulieu (1987) maintained that the functionally primitive yet necessary forces of nature that are part of one's daily *sound-scape* such as those raw universal sounds of moaning, sighing, laughing, sneezing, belching, screaming and coughing, just to name a few, are all forms of toning (1987). Moreover, as accorded by Campbell (1989), our own toning sounds may not be as interesting or pleasant sounding for an audience, but has the capability of vibrating, massaging, and balancing the body (1989). Thus, it is through these crude tones that the body seeks expression or achieves release.

To better understand the term *toning* as used in this project, a summary of the following definitions used to guide the investigation is presented. The definitions selected link *tone* to the use of the human voice. The first person credited with coining the term, *toning*, was the late Laurel Elizabeth Keyes (1973), author, lecturer and counselor, whose works are based on metaphysical and philosophical teachings of ancient traditions as well as modern psychology methods. In the early 1960s she used this term as a description of using sound created by the voice as a therapeutic tool. In her book, *Toning: The Creative Power of the Voice*, she stated, "Toning is an ancient method of healing" (Keyes, 1973, p. 5) and its purpose, she maintains, "is to restore the vibratory pattern of the body to its perfect electro-magnetic field so that it will function in harmony within itself" (Keyes, 1973, p.100).

Furthermore, since Keyes' reintroduction of toning as a therapeutic term to our western culture, much research has emerged attempting to define toning; a few of those definitions relevant to the work of Keyes' use of the human voice are mentioned here. Renowned musician and author of *The Mozart Effect*, Don Campbell (1989),

described toning as “the conscious elongation of a sound by using the breath and voice” (Campbell, 1989, p. 62), while Beaulieu (1987) wrote in his book, *Music and Sound in the Healing Arts* that “Toning is the simple and natural process of making vocal sounds for the purpose of balance” (Beaulieu, 1987, p. 115). Finally, another definition is offered by Goldman (2002), musician, author and director of the Sound Healers Association, who stated, “toning is the use of the voice to express sounds for the purpose of release and relief . . .” (Goldman, 2002, p. 137).

Ultimately, the above definitions were combined into one concise statement for this project; *toning is the conscious elongation of a sound using the breath and voice for the purpose of release and relief, balance, and expression* (Beaulieu, 1987; Campbell, 1989; Goldman, 2002; Keyes, 1973).

Why use the voice instead of other instruments to create tones? According to Goldman (2002), the human voice when compared to all earthly instruments or devices for making sound, is found to have the ultimate healing qualities and the capability to focus and project energy with intention (2002).

To elaborate further on the human voice, it is important to note that there are distinctions between singing, chanting, and toning. Goldman (2002) asserts that unlike toning, chanting employs repetitive words and texts based on a specific meaning. However, like singing, he noted that toning may use pitch or integrate the application of similar sounds to create syllables but, unlike singing, the syllables are not used to create coherent meaning (2002). Furthermore, Goldman (2002) proposed another distinction of toning from singing and chanting in its application which is based upon resonance. For example, he described yawning, humming, and moaning as non-verbal sounds in which

the voice can primarily utilize the vowels of those non-verbal sounds to resonate different areas of the body to bring about balance within those areas (2002).

Campbell (1989) suggests that while singing and chanting are essential to culture and are considered to be more “evolved forms of sonic release and artistic expression”, . . . “they cannot replace the power of the sustained tones themselves” (Campbell, 1989, p. 63). Furthermore, despite the similarities between singing, chanting and toning, he is apt to point out that, “to quickly evolve toning into chanting or singing is to take away its natural, vibratory and healing character” (Campbell, 1989, p. 63).

Emotion

A definition of the term *emotion* is also helpful to better understand the *emotional management* concept used in this workshop project.

Succinctly defining an emotion as “a thought linked to a sensation,” renowned author, Deepak Chopra (1993) asserted that one’s emotions are the most “present-centered” thing one has (Chopra, 1993, p. 185). It is clear that infants live in the present because their emotions are closely tied to their physical sensations as oppose to a developed mind which may begin to rapidly connect sensations with thoughts that give way to complicated emotional states, thus, Chopra (1993) believes that allowing one’s self to completely feel an emotion and then fully release it is how one can be in and with the present ageless moment (1993).

Furthermore, Chopra (1993) in his book, pointed out the work of Psychiatrist, David Viscott, who created a formula called the *Cycle of Emotions* that simplifies the complex array of emotions appearing again and again in one’s life. Viscott argues in

terms of the thought-sensation relationship, that it is one's thought that is generally linked to the past or the future, while the sensation is in the present. The following is an example of Viscott's Cycle of Emotions as outlined in Chopra's (1993, p. 186) book, *Ageless Body, Timeless Mind: The Quantum Alternative to Growing Old*:

- Pain in the present is experienced as hurt.
- Pain in the past is remembered as anger.
- Pain in the future is perceived as anxiety.
- Unexpressed anger, redirected against yourself and held within, is called guilt.
- The depletion of energy that occurs when anger is redirected inward creates depression.

Many researchers agree with renowned yoga teacher and author, Bija Bennett (2002) that "Emotions are physical, not psychological" (Bennett, 2002, p. 3). What was originally thought as being separate and apart from the physical and cognitive domains of one's experience, scientists now agree and understand that emotions are more closely integrated with the body and mind. For instance, Crowe (2004) cited research which revealed that the brain and body are directly affected by and integrated with an accumulation of physiological and psychological alterations known as emotions appearing as diverse attributes of affective behavior (Noy, 1993; Damasio, 1994; Goleman, 1995; LeDoux, 1996, as cited in Crowe, 2004).

Biophysicist Candace Pert (1997), established the biomolecular link for human emotions in her book, *Molecules of Emotion*. She theorized that the "physiological substrates of emotion" are based upon "what we experience as feelings, sensations, and thoughts" (Pert, 1997). She suggested that it is an individual's molecules

of emotion that allows him or her to vibrate or be at one with others, to “feel what others feel” (Pert, 1997, p. 312). This line of thought is not too farfetched from the experience of sensing another’s vibes, for example, as *good vibrations* or as *I’m getting a bad vibe about this or that*.

The following is Pert’s (1997, p. 312) scientific point of view on *emotional resonance*, in which she believes that emotions are a psychosomatic network between not only one’s own mind and body but others’ minds and bodies:

I believe the receptors on our cells even vibrate in response to extracorporeal peptide reaching a phenomenon that is analogous to the strings of a resting violin responding when another violin’s strings are played. We call this emotional resonance.

Toning and its Relationship to Emotions

As science continues to advance, new scientific disciplines emerge. Some of the new sciences, such as neurocardiology and vibrational science have moved away from the old mechanistic model of the body to making a significant leap toward a holistic model.

Indeed the science of vibration sheds light on entraining the affective domain of body, mind, and heart. Within the field of Vibrational Medicine are those therapies, which stimulate the senses, such as light, sound, aroma, and touch. More specifically, sound and music therapies are based on the scientific principle of resonance which states that the vibrations of one vibrating body can set off a similar vibration in another body (Andrews, 2004).

Toning and its relationship to emotion become evident when expressing the body’s inherent musicality. Moreover, recognizing the aspects of toning that are

spontaneous musical expressions of one's emotions may be supported by the key findings in a study entitled, *Roots of Musicality: on neuro-musical thresholds and new evidence for bridges between musical expression and 'inner growth'*, conducted by Daniel Perret (2004). He found a set of seven *neuro-musical thresholds* (a term he coined to link musical issues to the body's neurological network) within the body and the existence of sophisticated links between musical expression and the body. Additionally, he reported that the neuro-musical thresholds also corresponded to a set of emotions and patterns of thoughts which could be traced to areas of the body and brain that had been influenced by spontaneous musical expression (2004).

Further investigation by neuro-biologist Colwyn Trevarthen (2000b) cited in Perret's (2004, p. 328) study suggested that:

It is music's nature to be fundamentally human . . . that spontaneous musical expression is essentially a reflection of inner realities. Musicality appears to be a human psychological process intimately linked with the unique intensity of the human need to make, learn and transmit meaning in the experience of acting in common social experience.

Other research supports the body's need to express its inherent musicality "all human beings are biologically predisposed to be musical and this inborn predisposition for musicality has important consequences for us not only artistically, but emotionally and socially, as well" (Hodges, 2002, p. 5).

The term musicality as used in this project is based on Perret's (2004) definition which pertains to the felt qualitative aspects in musical expression that can move and nourish the listener on a deep level going beyond measurable elements such as timbre, phrasing, variation in speed, etc, (2004).

Additionally, there is significant scientific evidence showing that “music can alter mood and emotional states” and those states can in turn alter the activity and balance of the autonomic nervous system (McCraty, Barrios-Choplin, Atkinson, & Tomasino, 1998, p. 75).

Neurocardiology is the study of the neurophysiological, neurological and neuroanatomical aspects of cardiology. Studies in neurocardiology have established that the heart acts independently of the brain because it has its own brain. According to researchers McCraty & Childre (2003) the heart is a highly evolved sense organ with an elaborate processing core and inherent nervous system that is capable of learning, remembering and functioning independently of the cranial brain (McCraty & Childre, 2003).

Summarily, the research has shown humans’ inherent musicality to be spontaneous expression. According to Perry (2007) one of the multi-dimensional aspects of toning is that it is also a “spontaneous and intuitive” method of expressing one’s feelings (Perry, 2007, p. 48). Interestingly, music therapist, Crowe (2004) examined layers of emotional expression in people, thus she identified feelings, as a different property of affective behavior and reported that feelings as well as mood, temperament, and emotion are all subsumed in the word *affect*. Moreover, she defines the word *affect* as “an organized pattern of changes comprising several physiological and psychological systems” (Crowe, 2004, p. 238).

It is important to note that this information is significant to the affective domain component of the project, because it is the physiological process of the heart-

brain that shares the same physiological process of the voice for toning, namely the autonomic nervous system, which is explained in the next section.

Vocal Profiling

A rapidly developing new field of study known as Vocal Profiling uses sophisticated technological equipment, allowing sound therapists to observe the frequency patterns of the voice, to chart those patterns and to interpret energy imbalances in the voice.

Vocal Profiling was essentially used in this project as an assessment tool for voice analysis and to generate *voice prints*.

The process of using one's own natural voice as well as using recorded sounds of one's voice to bring about a state of balance and well-being in the mind and body, has been the object of much research. Inventor of Bio-Tuning, Dr. Jeffrey D. Thompson (1996), who founded the Neuroacoustic Research Center in San Diego, California, in 1988, observed that a person's vocal cords (or folds) were capable of producing a fundamental note resulting in his or her own unique set of harmonics and overtones (1996). This fundamental note or frequency is called a "voice vibration fingerprint" (Thompson, 1996, Bio-Tuning, para. 2).

Another researcher, Sharry Edwards (2005), founder of Human BioAcoustic Vocal Profiling, reported that her 30 plus years of research has been established on the foundational idea that "the voice is a holographic representation of the body" (Edwards, 2005, Voice as Holographic, para. 1). She further maintained that every muscle, nerve, bone, and organ in the body has its own *voice* or energy frequency. These concepts

behind her work led to the creation of a computerized *Mathematical Matrix* developed out of the frequency patterns and coherent structures of the voice (2005).

Edwards (2005) asserted that Vocal Profiling is based on the idea that the voice contains frequencies which give information about its architecture or its pattern, and that the vocal cords (folds) which are located in the larynx is regulated by the vagus nerve. She theorized that the voice can be a representation of the autonomic nervous system, more specifically, the body's expressions of the sympathetic or parasympathetic nervous systems, through entrainment of the vagus nerve and vocal folds which in turn sends messages about the body directly to the brain (2005).

What Edwards (2005) called Human BioAcoustics; Thompson (1996) called BioTuning. Both are vocal profiling devices designed for the purpose of facilitating self-healing through the use of the voice. Researchers agree that frequency exist as various forms of energy, e.g. light and sound, and can be important aspects to facilitate healing in the body (Andrews, 2004; Becker & Selden, 1985; Campbell, 1989; Gaynor, 2002; Gerber, 2001; Oschman, 2000; Tomatis, 1991).

The Instructional Design Process

Instructional designers typically use Instructional Systems Design (ISD) models to guide a systematic process, which leads to effective and efficient learning solutions. For this project, the designer chose to use a nine element instructional design process borrowed from Morrison's et al. (2001) *Comprehensive Instructional Design Model*. Moreover, the designer's reasons for the choice were based on Morrison's et al. (2001) philosophy that an instructional design model should have flexibility and

adaptability to allow for the application of heuristics to be effective. Additionally, the design model should be eclectic borrowing from various disciplines and approaches such as the behavioral and the cognitive approaches (2001).

Four primary elements in almost every systematic instructional design model include learners, objectives, methods, and evaluations. Morrison et al. (2001) suggested, while these four basic elements could possibly make up a complete instructional design plan, five additional elements should be addressed to form a comprehensive design plan (Morrison et al., 2001). The nine elements of Morrison's et al. (2001) comprehensive design plan are listed below:

1. Identify instructional problems and specify goals for designing and instructional program.
2. Examine learner characteristics that will influence instructional decisions.
3. Identify subject content, and analyze task components related to goals and purposes.
4. Specify the instructional objectives.
5. Sequence content within each instructional unit for logical learning.
6. Design instructional strategies so that each learner can master the objectives
7. Design the instructional message.
8. Develop the instruction.
9. Develop evaluation instruments to assess objectives

In their design plan, Morrison et al. (2001) preferred to use the term *element* to label each of the nine parts of the instructional design plan instead of words like step, or stage which could suggest a linear approach (2001). In addition, there are no lines or

arrows to connect the elements as these could also indicate a sequential or linear order. Morrison et al (2001) pointed out that though illustrated as a coherent, clockwise arrangement, the nine elements have no specific starting point and that the intent behind the use of an oval pattern is to convey flexibility and interdependence throughout the elements, thus allowing for adjustments, changes and additions, while providing a loose orderly approach to using the nine elements.

Also, the model illustrates the component of resources which serve as support to the instructional activities especially the feedback feature, which Morrison et al. (2001) believed allowed for back-and-forth activity, changes and adjustments when addressing elements of instruction during any stage of development. The model incorporates functions, such as summative and confirmative evaluations, which are beyond the scope of this project. The designer's treatment of the elements was limited to formative evaluations and revisions.

Element I – Instructional Problems

The instructional problem must first be identified before any design or development of training or instruction can take place. Systematic approaches for identifying the problems are at the disposal of the designer. Subsumed within this first element are three different approaches to pinpoint instructional problems: needs analysis, goal analysis, and performance analysis. This project concerns only two of these approaches; needs analysis for identifying the problem and goal analysis for refining it.

In the needs analysis approach, Morrison et al. (2001) cited Kaufman & English (1979) and Kaufman, Rojas, & Mayer (1993) as having described it as an assessment tool for identification of the problem and for determining the instructional

intervention. “Needs are defined as a gap between what is expected and the existing conditions” (Morrison et al., 2001, p. 27). Burton & Merrill (1991), also cited in Morrison et al. (2001) as having identified six categories of needs, “normative needs, comparative needs, felt needs, expressed needs, anticipated or future needs, and critical incident needs” (Morrison et al., 2001, p. 28).

In the goal analysis approach, Mager (1997) described its function as “defining the indefinable” (Mager, 1997, p.11). Furthermore, he suggested using it whenever “someone describes an intent in abstract terms” and/or “the intent is important to achieve”, (Mager, 1997, p. 12). Goal analysis is essentially a two part procedure: 1) being able to discern goal statements that describe the *fuzziness of concepts* (abstractions) from those that describe tangible performances and 2) being able to describe the performances (specific outcomes) that indicates when the goal has been achieved (1997).

Element II – Learner Characteristics

The second step in the nine-element ID process is *Learner Characteristics* that essentially addresses the issue, for whom is the program developed. Two methods for acquiring information about the characteristics of the learners are the learner analysis and the context analysis. For this project, the designer conducted a learner analysis which entailed identifying those characteristics most significant to achieving the learning objectives.

Moreover, research as cited in Morrison et al. (2001), suggested categories of learner characteristics. For instance, the first category is general characteristics, which are “broad identifying variables such as gender, age, work experience, education, and ethnicity” (Morrison et al., 2001, p. 47). The second category is specific entry

characteristics or competencies, which are “prerequisite skills and attitudes that learners must possess to benefit from the training” (Morrison et al., 2001, p. 48). The third category is learning styles, which “refer to how individuals approach learning tasks and process information” (Morrison et al., 2001, p. 49).

Other learner characteristics are categorized as academic, personal and social, and nonconventional. Learners in the nonconventional category, may not have typical learning behaviors or expectations due to special characteristics in culture, those with disabilities and those who are adult learners (Morrison et al., 2001).

Specifically, the category of learners particularly relevant to this project is adult learners. Morrison et al. (2001), cited extensive research in the field of adult education that revealed recognizable generalizations by those who work with accommodating adults in the educational process. Two generalizations worth mentioning reside around the notion that self-direction and independence are characteristics of most mature adult learners. In the first place, though they may lack confidence or need encouragement, the preferences for delivery of instruction lean toward the instructor who serves in the capacity of facilitator to guide rather than the authoritarian who dictates instruction. Secondly, adult learners favor small group activities where they can collaborate, interact, and socialize (2001).

In conducting a contextual analysis, it is important to recognize that the context in which learning takes place impacts every facet of the learning process. When designing instruction, three types of context to be analyzed are suggested by Tessmer & Richey (1997) as cited in Morrison et al. (2001): 1) orienting context which puts the learner at the center of the instruction, 2) instructional context, concerned with

information about the physical environment, and 3) transfer context, which examines the chances for the learner to transfer his or her knowledge, skills, or attitudes to new situations. Besides collecting and analyzing data using common tools such as surveys, observations and interviews, the contextual analysis identifies factors such as, limitations or facilitation of design and delivery of the instruction (2001).

Element III – Task Analysis

At this juncture in the instructional design process, accurately defining the content to be used for instructional materials is critical according to Jonassen, Hannum, & Tessmer, (1989) in Morrison et al. (2001). The task analysis becomes a useful procedure for the designer in defining content for an instructional unit. Input for an analysis of the content comes from both the needs assessment and learner analysis. Beginning with the needs derived from the definition of the instructional problem as well as information regarding learner characteristics related to the topic provides the designer with some point of reference in which to begin and determine the extent of the analysis (Morrison et al., 2001).

Designers usually work with and rely on experts who are generally known as the subject-matter expert (SME) in the content area. Though the designer relies on the SME to provide accurate, detailed information, it is the job of the designer to obtain a comprehensive analysis to use in developing the instructional unit (Morrison et al., 2001). The analysis assists the designer to: 1) define content required to solve performance problems or relieve performance needs, 2) identify elusive or obscure steps when working through individual steps with a SME, 3) view content from learner's perspective

to gain insights into appropriate teaching strategies (Jonassen, Hannum, & Tessmer as cited in Morrison et al., 2001).

Morrison et al. (2001) presents three techniques for analyzing content; topic analysis, procedural analysis, and critical incident method. The topic analysis was used for analyzing the content in this project (see Chapter 3 for a detailed treatment of the topic analysis). Finally, the task analysis yields a document comprising the content that will be used to facilitate the development of instructional objectives (2001).

Element IV - Instructional Objectives

Instructional objectives address the issues of what the learners are expected to learn and demonstrate. For the instructional designer, they perform three functions. First they provide a means to design appropriate instruction, second, they offer a framework for inventing methods to evaluate learning and third, they guide the learner (Morrison et al., 2001). Typically grouped into three domain categories, instructional objectives are identified as cognitive, psychomotor, and affective. Bloom and associates (1956), as described in Morrison et al. (2001), developed taxonomy for the cognitive domain and broadly organized it into two groups: Group (a) was identified as the lowest level, recall of information, and was labeled by Bloom as knowledge, while group (b) signified intellectual activities; these higher mental abilities were classified into five levels: comprehension, application, analysis, synthesis, and evaluation (Bloom and associates as cited in Morrison et al., 2001).

The psychomotor domain category includes the physical activities of performance, manipulation, and construction, which would require skills in the use of and coordination of one's skeletal muscles (Morrison et al., 2001). Furthermore, Morrison et

al. (2001) point to Heinich, Molenda, & Russell (1993) who offer a classification based on the “degree of coordination such as, imitation, manipulation, precision and articulation” (Morrison et al., 2001, p. 88). Still, another system of psychomotor skills, presented by Kibler (1981) in Morrison et al. (2001) is the recognition of *separate gross-and-fine-movement skills* such as in the four levels below:

Level 1 – Gross bodily movement of arms, shoulders, feet and legs. Level 2 – Finely coordinated movements of hands and fingers, hand and eye, hand and ear, and of hand, eye, and foot. Level 3 – Nonverbal communication of facial expression, gestures, bodily movements. Level 4 – Speech behavior in producing and projecting sound, coordinating sound and gestures. (p. 88)

The affective domain category involves instructional objectives which deal with attitudes, appreciation, values, and emotions. Organized into five levels, Morrison et al. (2001) offered Krathwol, Bloom, & Masia’s (1964) affective domain classification which forms a progression for attitudinal behavior, such as, receiving, responding, valuing, organizing and characterizing. In short, these behaviors evolve from a modest awareness to an internalization of a person’s value system.

It is important to note that all three domains are related in two ways. First, learning in two or three of the domains can emerge from one instructional objective; second, the development of attitudes may need to be addressed before learning can be successful in the other domains. Likewise, learner motivation toward a subject matter often needs to be addressed before success of the instruction can be obtained (Morrison et al., 2001).

Despite the three sophisticated taxonomies used in writing effective objectives mentioned above Morrison et al. (2001) argued they are “not well suited” for developing instructional strategies, first, because objectives can be included into more than one level,

and second, prescriptive strategies are not provided at each level of the taxonomies (Morrison et al., 2001, p. 102).

Therefore, Morrison et al (2001) present two different models for classifying objectives and for prescribing instructional strategies. They asserted that the Mager & Beach (1967) model was better suited for instruction in the classroom, while, a structured content approach is better provided by Merrill's (1983) performance-content matrix model (Mager & Beach, and Merrill as cited in Morrison et al., 2001). The performance-content matrix model was considered for this project because like the topic analysis, it provided the same six categories for the types of content, *fact, concept, principles and rules, procedure, interpersonal, and attitude*. Thus, by classifying content and performance, the performance-content matrix facilitated the process of mastering the objectives to determine which type of instructional strategy to use.

Element V – Content Sequencing

According to Morrison et al. (2001), content sequencing involves efficiently sequencing content in an effectual way as to assist learners in achieving the objectives. Moreover, they presented research which described several common methods of content sequencing, such as Gagne's (1985) *prerequisite method* which focused on a hierarchical sequence of teaching prerequisite skills first (Gagne as cited in Morrison et al., 2001). They also examined Reigeluth's (1996) *elaboration theory* which is a method that "makes a distinction between types of expertise the learner will develop" from either sequencing for content or task (Reigeluth as cited in Morrison et al., 2001, p. 118).

Considered for this project was a well-known method for sequencing instruction related by Posner and Strike (1976) "as a set of strategies . . . based on

learning-related, world-related and concept-related content” (Posner & Strike as cited in Morrison et al., 2001, p. 112). First, the *learning-related scheme* proposes a way of sequencing the content based on phenomena such as, familiarity, difficulty or learner interest. Next, the *world-related scheme* recommends sequencing based on phenomenon whose relationships in the content are spatial, temporal and physical. Finally, the *concept-related scheme* recommends sequencing based on associations in the content between concepts of class or propositional relations, sophistication and logical prerequisite (Morrison et al., 2001).

Element VI – Instructional Strategies

The goal of a designer is to ensure efficient and effective instruction that the learner can rely on with each presentation. One way to achieve this goal is to develop prescriptions that provide guidance for developing instructional strategies to accommodate various kinds of content and a number of delivery strategies (Morrison et al., 2001).

For the designer, these instructional prescriptions are essentially heuristics based on behavioral and cognitive research, as well as educational and psychological research and which Morrison et al. (2001) asserted, “represent a problem-solving strategy, rather than a set of rules, that allows for a flexible approach that you can modify with each new experience” (Morrison et al., 2001, p. 128).

Included as part of the instructional design plan, a prescription is designed for each instructional objective based on the type of performance (e.g., recall or application) and content. Each prescription consists of at least two parts: (a) the first presentation to

the learner describing the information, and (b) the generative strategy to expand deeper levels of processing (Morrison et al., 2001).

Morrison's et al. (2001) research revealed that Jonassen (1988) identified "four information-processing strategies" that were generative in nature. The four types of strategies are, recall, integration, organizational and elaboration. Furthermore, to motivate the learner in processing new content in a significant manner, the generative strategies can be embedded into the instruction (Jonassen as cited in Morrison et al., 2001, p. 125).

In summary, to design an instructional strategy, the designer takes into consideration that active learning requires the learner be prompted or motivated to actively make connections in constructive and meaningful ways, or to make connections between existing knowledge and new information. Detailed treatments of the designer's use of the instructional strategies, both prescriptive and generative are in Chapter 3 – Methodology.

Element VII – Designing the Message

Converting the design of instruction into the actual instruction to be used entails appropriate construction of instructional materials. This next step involves the process of *Designing the Message* as termed by Fleming (1993), which facilitates the effective communication of instructional strategies (Fleming as cited in Morrison et al., 2001).

The message design process can be divided into three areas: 1) pre-instructional strategy, an approach to ready the learner to receive the instruction, 2) signaling, a strategy using terms and typography to direct the learner through text-based

instruction, and 3) using pictures and graphics in the instructional materials (Morrison et al., 2001).

Hartley & Davies (1976) suggests four pre-instructional strategies to introduce a unit of instruction: 1) pretest, is a number of questions linked to the lesson, 2) objectives, which describe performance to be achieved, 3) overview, which is the traditional written paragraph introduction that summarizes what is to come, and 4) advanced organizer, which is like the overview but primarily focused on important concepts that the learner can expect in the instruction (Hartley & Davies as cited in Morrison et al., 2001).

Researchers, Britton & Gulgoz, (1991); Jonassen, (1982); Mannes, (1994); Schraw, Wade, & Kardash, (1993) maintained that how the designer designs the message can influence learner's cognition and that learner comprehension is facilitated through proper signaling of text structures (as cited in Morrison et al., 2001).

Moreover, the designer can make use of Armbruster's (1986) five text structures for the task of effective signaling: "1) lists of items or ideas, 2) comparisons or contrasts, 3) temporal sequences, 4) cause and effect structures, and 5) definition and example" (Armbruster as cited in Morrison et al., 2001, p. 152).

For this project, two additional signaling approaches noted by Morrison et al. (2001) were used. One is the use of "explicit signals" that cue learners about the text's structure. The other is "typographical signals" that suggest a change in the structure, e.g., bold, italics, and spacing (2001, p. 151).

Also considered for this project were five different uses of pictures in text identified by Levin (1981) that help with learning: decoration, representation,

organization, interpretation, and transformation. He emphasized that each are different in how they impact the learner (Levin as cited in Morrison et al., 2001). According to Morrison et al. (2001), a designer's decision to include a picture in instruction depend on the picture's ability to improve learning, its availability, and its duplication cost when added to the instruction (2001).

Element VIII – Development of Instruction

Solving the performance problem should be the main focus to developing instruction. Morrison et al. (2001) suggested reviewing the objectives and learner analysis often in the design plan so that a designer can make sure these items “support the resolution of the instructional need” (Morrison et al., 2001, p. 170). Furthermore, the learner analysis is useful in determining how familiar learners are with the content and terminology as well as using learner background to facilitate the designer's selection of examples used in the appropriate context for the instruction (Morrison et al., 2001).

Something new is learned each time instructional materials are developed. This trial-and-error approach is a heuristic process. As modifications of existing heuristics are made and new ones are added, they become general rules applied to the design process (Morrison et al., 2001). Research cited in Morrison's et al. (2001) suggested the following five heuristics to be helpful in developing a unit of instruction:

1. *Concrete /abstract materials* – Though Paivio (1971, 1986) established concrete materials as a positive benefit to learning, learners may still have challenges with the ideas due to the fact that most text materials are abstract. Sadoski, Goetz & Fritz, (1993) suggested that increasing learner interest and recall of the content is facilitated if a mix of abstract and concrete information is available. Thus, illustrations,

short words, active sentences, and rich examples are ways to make text not only concrete, but also more comprehensible (Paivio; Sadoski, Goetz & Fritz as cited in Morrison et al., 2001).

2. *Step size* – Refers to the transitions or jumps between ideas. Different audiences may require varied step sizes. Step size may be controlled using the following two strategies: 1) “use consistent terminology throughout the instruction” and 2) “make explicit references back to what the learner has previously learned” (Morrison et al., 2001, p. 173).

3. *Pacing* – “A function of the number of examples, problems, interactions, or exercises presented with an idea” (Morrison et al., 2001, p. 174). The pacing of the instruction is controlled by varying the number of activities, problems and examples in the instruction. For instance, slowing the pacing of the instruction can be achieved by increasing the distance between two ideas (Morrison et al., 2001).

4. *Maintain Consistency* – Consistent terminology reduces the “cognitive load and confusion for the learner” (Morrison et al., 2001, p. 175).

5. *Cues* – The designer’s use of words (e.g. first, second) and typographical conventions, such as, bold and italics, can communicate more accurately the instructional message (Morrison et al., 2001).

Part of developing instructional materials is consideration of how best to present them. Morrison et al. (2001), suggested three different instructional delivery methods. Each method is described as follows:

1. *Lecture Presentations* – The instructor conveys subject matter to an audience of learners. The lecture may take place in various environments and utilize different

technology such as the Internet, television, or radio. Instructors may include other types of media (video, graphics, audio recordings, etc.) to enhance their presentations. Learners in this type of setting are passively receiving information. . One benefit of choosing a lecture presentation to achieve instructional goals is for its adaptability and flexibility. Content can be modified spontaneously and made to be simple or complex, and long or short as needed.

2. *Small-Group Formats* – A collaborative and cooperative method where learners work in groups consisting of 2-10 individuals. The format allows for blending of ideas due to group member actions such as discussion, sharing and problem solving.

3. *Self-Paced Learning* – A method of learning in which the learner takes more responsibility for her/his learning. The learner can also control the pace of learning and is actively involved in accomplishing particular learning objectives through various activities and supportive resources. One of the benefits of a self-paced learning method is that learners receive the same basic ideas, which in comparison to lectures given on separate occasions, decreases inconsistencies.

Element IX - Evaluation Instruments

The final element in the design model is development of testing instruments and materials that evaluate the degree to which the learners have met the knowledge, skills, and attitudes required in the instructional objectives.

Given its prototypical outcome, the scope of this project is limited to formative evaluations, which pivot around five areas in the instructional design process discussed below:

1. The Role of Instructional Objectives – it is important that the objectives determine what is evaluated. Assessing how well learners do becomes an essential part of a formative evaluation to improve the instruction (Morrison et al., 2001).

2. Multiple Data Sources Equal Increased Information – There are implications in the research for using more than one source of data when conducting formative evaluations in order to go beyond effective instruction to improving other aspects of the instruction that are not successful. (Morrison et al., 2001).

3. Processes and Products – Formative evaluations asks “How are we doing?” Formative evaluation is interested as much with the process as with the product and will “emphasize the measurement of outcomes as instruction evolves” (Morrison et al., 2001, p. 207).

4. Time of Testing – Formative evaluation testing is critical at all stages of instructional development and should be conducted before, during and after , hence the terms,as pretesting, embedded- testing, and post-testing respectively (Morrison et al., 2001).

5. When to Evaluate – Before development of instruction is complete is the best time to formatively evaluate it because changes are less costly early in the process. They are also most valuable when used continuously throughout the different phases of the design process (Morrison et al., 2001).

Dick and Carey (1991) address how formative evaluation methods might vary at different stages of the design process in their three-stage model (Dick & Carey as cited in Morrison et al., 2001).

The first stage consists of *one-to-one trials* and is conducted early in the development process. These trials are typically done more than once in the first stage of the instructional design process (Thiagarjan, Semmel, & Semmel as cited in Morrison et al., 2001). According to Brenneman (1989), using individual learners, the designer can try-out the instruction (Brenneman as cited in Morrison et al., 2001) “The goal is to obtain descriptive information pertaining to the clarity, impact, and feasibility of initial versions of the instruction” (Morrison et al., 2001, p. 275).

The second stage tests via *small-group trials* a more developed version of the instruction using a group of 8 to 25 individuals. Before the instruction is final, the evaluator endeavors to identify what works and what doesn't work in it by using data gathered through observation, attitudes, and performance measures (Morrison et al., 2001).

The third stage is testing under realistic conditions, hence, *the field trial*. Typically the audience consists of the targeted learner group and the instructor delivers the completed version of the instruction (Morrison et al., 2001).

Summary of Review

The designer chose to explore the multi-dimensional aspect of toning, to define it, and determine how to use it in the context of this project. Additionally, research showed how the idea of musicality is essentially an aspect of toning. At the intersection between toning and the emotions is the vocal apparatus. The voice is an indicator of the emotional health of the body, due to its heart-brain connection. This is an important step toward grasping the concept of emotional management. Investigating the

biofeedback technology called Vocal Profiling confirmed for the designer its use as a motivational technique in the workshop. The combination of the above concepts conjures up a novel approach for instructing toning which the designer believes to be worthy of study. Finally, the designer maintains that both learning and teaching a toning technique requires appropriate instructional design methods and measures as is demonstrated in detail in the next chapter.

CHAPTER III

METHODOLOGY

Music is the shorthand of emotion.
Leo Tolstoy

Introduction

This chapter discusses the method used in the production and evaluation of the designer's project. The designer carried out instructional design functions common in the field such as, conducting a brief needs assessment, assessing the instructional need, working with subject experts, identifying instructional content and strategies, defining learning objectives, developing and writing course materials, selecting media, writing instructor and participant materials, and conducting a pilot run of the overall intervention with its various instructional components.

The designer's Nine Elemental Instructional Design Model was based on Morrison's et al. (2001), *Comprehensive Instructional Design Plan* (see Figure 1). As noted by the authors, the circular design model allowed flexibility for the designer to work both sequentially as well as randomly with elements of the design process. Moreover, they credited Romiszowski (1981) with fostering heuristic approaches in the design process, thus, allowing the designer to make adjustments as needed (Romiszowski as cited in Morrison et al., 2001).

For the purpose of keeping track of data collected during the project's instructional design process, a Data Collection Journal (see Appendix A) was developed. It consisted of a time line divided into time periods appropriated for each action taken. The *Action Taken* column states the tasks of the process. The *Data Collection Activity* column states how the data was collected, and the *Assessment Instrument Column* lists the type of instrument used to collect the data.

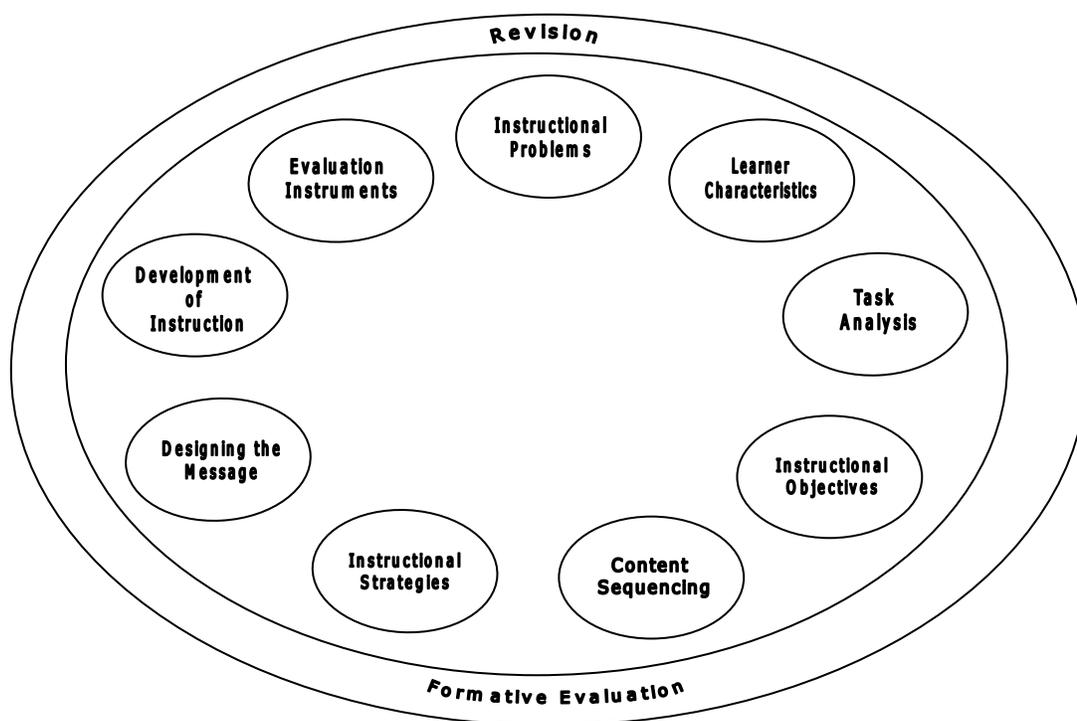


Figure 1. Nine Element Instructional Design Model (based on Morrison's et al. (2001) Comprehensive Instructional Design Plan) Morrison, G. R., Ross, S. M., & Kemp, J. E. (2001). *Designing effective instruction* (3rd ed.). New York, NY: John Wiley & Sons, Inc.

A detailed discussion follows on each of the nine steps below that guided the methodology:

1. Instructional Problems
2. Learner Characteristics
3. Task Analysis
4. Instructional Objectives
5. Content Sequencing
6. Instructional Strategies
7. Designing the Message
8. Development of Instruction
9. Evaluation Instruments

Element I - Instructional Problems

The instructional design process for this project began with a preliminary interview with Dr. Barros for the designer to identify the instructional need. Barros, who served as subject matter expert (SME) for this project, has been a Doctor of Chiropractic since 1985 with experience in practicing and teaching Yoga since 1976. She established the Clear Creek Healing Center in Butte Valley in 1987 from where she conducts annual certification workshops for yoga instructors. Her philosophy is living life to its fullest and being healthy in body, mind, and spirit. In response to her yoga students' expressed interest in chanting, Barros, had already begun experimenting with her yoga classes to include five minutes of chanting to begin and end each class session. Moreover, Barros had been taking private voice lessons with CSU, Chico voice professor, Dr. Jeffrey

Gemmell, to improve her own vocal performance. During this period Barros also learned of vocal toning exercises for the well being of mind, body and spirit. She was interested in integrating his toning technique with her yoga philosophy as a fresh approach to her existing format on chanting because she was seeking a way to enhance her own vocal performance and retain students' interest to see value in the benefits of chanting for themselves. During the same time, Gemmell and this designer were in the midst of producing a video series about his vocal toning technique and exercises. Hence, this instructional designer was contacted by Barros on Gemmell's recommendation to assist her with her instructional problem.

From an instructional design perspective, the purpose of identifying the need is to determine how best to address it. Morrison et al. (2001) maintains that "needs are defined as a gap between what is expected and the existing conditions" (Morrison et al., 2001, p. 27). The preliminary interview yielded three factors for consideration in addressing Barros' instructional need.

The first factor considered was to identify the type of need she had. In Barros' case, though the situation could be identified as a *felt need*, a more accurate identification however would be an *express need* which is defined by Bradshaw (1972) as "a felt need turned into action" (Bradshaw as cited in Morrison et al., 2001, p. 29).

In other words, where "people are often willing to pay to satisfy expressed needs," (Burton & Merrill as cited in Morrison et al., 2001, p. 29) is indicative of Barros' yoga studio and therefore, a favorable environment to transform a need into action. Moreover, in order for the designer to confirm the *express need* of the students

that Barros described during the interview, the designer needed to collect information from the students themselves.

The second factor identified was that no standardized instruction existed to guide the chanting component of Barros' yoga class. Her existing instructional content was based on her participation in various yoga and chanting seminars in which she integrated with her own yoga classes. Barros favored the work of renowned yoga teacher, Bija Bennett (2002) and expressed her desire to bring Bennett's concept of *emotional yoga* to the instruction. Interestingly, another concept advanced by Bennett (2002) showed *how the body can heal the mind via* emotional expression produced by singing, chanting and toning and makes the connection between self expression through the voice and emotional health. Likewise, the idea that toning is a fundamental aspect of chanting, as alluded to in Patrick Bernard's (2004) book, *Music as Yoga*, appealed to Barros. In describing her desire to enhance her teaching/learning environment Barros stated, "I would like to know how to bring a consistent tone to the class, for my students to have some witnessing sense about what goes on when they're toning" (personal communication, August 16, 2006).

The third factor identified was a discrepancy between instructor performance and student attitude. Barros intimated her chanting instruction was affecting her students' attitudes towards the benefits of chanting. Again, the designer needed to confirm Barros' perception of her students' interest in chanting.

According to Kaufman, (1979); Kaufman, Rojas, & Mayer, (1993) the instructional intervention should not just address the symptoms (Kaufman; Kaufman, Rojas, & Mayer as cited in Morrison et al., 2001). To ensure this would not happen, the

designer conducted a brief needs analysis to determine students' attitudes, and identify the instructional need. Consisting of four phases, "planning, collecting data, analyzing data and preparing the final report" a description of the needs analysis is outlined below (Morrison et al., 2001, p. 31).

Needs Analysis

Phase 1: Planning. Since the designer was measuring attitudes of the target audience (prospective yoga students), the primary method of data collection was the Questionnaire (see Appendix A). According to Morrison et al (2001), the Questionnaire is most commonly used to assess attitudes. The designer created a questionnaire which included 20 closed-ended questions, some of which had a number of fixed responses from which participants chose the answer that best reflected their opinion. Other questions asked participants to rate the alternatives on a numerical scale, or check important choices according to rank. The decision to use closed-ended items was based on the fact that participants could complete them quicker and for the designer, they were more objective to process. On the other hand, because the questionnaire is limited for "depth and detail of expression" (Morrison et al., 2001, p. 258), an in-depth interview with SME Barros was decided upon as another method of collecting specific data about the target audience. The designer prepared a *structured interview* form (see Appendix A) to guide the interview as it was important to narrow and obtain accurate input from Barros about the learners' characteristics (Morrison et al., 2001).

Phase 2: Collecting the Data. Questionnaires were distributed to a sample size of thirty-eight people representative of the target audience and were completed by seventeen students from Barros' yoga class in Chico and eleven students from her yoga

class in Paradise. To ensure objective and unbiased data, ten of the thirty-eight people in the sample were not yoga students of Barros. Of those ten people, four completed questionnaires via email and the remaining six completed questionnaires at a vocal profiling workshop in San Francisco, California where the designer was also an attendee. Collecting the final data included the one hour structured interview with Barros at her Healing Center and with her permission; the interview was recorded for the designer's reference only.

Phase 3: Analyzing the Data. Questionnaire responses were compiled in Microsoft's Excel program; frequency identifications were established based on the number of actual responses divided by the total number of people who completed the questionnaire. Morrison et al. (2001) maintained that, "the output of the analysis is a prioritization of needs" and can be prioritized by ranking, frequency count, or impact such as, in the number of people affected (Morrison et al., 2001, p. 33). In analyzing the data from the questionnaires and the one interview conducted with the SME, frequency identifications emerged resulting in the following five themes:

- 1) Interest in chanting/toning
- 2) Amount of knowledge and/or experience in chanting/toning
- 3) Learning Preferences
- 4) Value Preferences toward health and life in general
- 5) Experience with biofeedback devices

Phase 4: Report of Findings. As was mentioned, all thirty-eight questionnaires were completed and returned from four locations described earlier. Though ages of the target audience ranged from 20 years to 80 years, the data revealed 26% of the audience

ranged in age from 20 – 39, 50% ranged in age from 40 – 59, and 23% ranged in age from 60 – 80, suggesting that the 40 – 59 age groups may be representative of the target audience for this project. Also, of the thirty-eight participants, thirty-one were females and seven were males, suggesting that perhaps women ages 40 – 59 may be a more accurate representation of the target audience for this project. The results of the data revealed:

Theme 1- Interest in chanting/toning:

- 81% of the target audience was interested in a yoga workshop that integrated chanting and toning.
- 60% of the target audience ranked chanting as being important to them.
- The data revealed that 81% of the target audience was interested in attending a yoga and toning/chanting workshop, and 26% were interested to the extent of attaining certification for a yoga program that incorporates toning and chanting.

Theme 2 - Amount of knowledge and/or experience in chanting/toning:

- 42% of the target audience has had little or no experience with toning and/or chanting.
- 68% of the target audience has never attended workshops in which they used their voices to express their emotions.

Theme 3 - Learning preferences:

- 71% of the target audience preferred to learn chanting and toning in a live workshop.
- Of the three types of learning approaches presented, 58% of the participants

preferred a visual learning approach, while a kinesthetic approach was preferred by 26% of the participants, and 16% of the participants preferred an auditory approach.

- In choosing a range of instructional items likely to be learned at a yoga workshop about toning and chanting, 39% of the participants expected to learn chanting and toning while performing various yoga poses, 60% expected to learn a technique of chanting and/or toning., 31% expected to learn a vocal technique to manage their emotions, and 71% expected to learn how to balance their physical, emotional and spiritual health.

Theme 4 - Value preferences toward health and life in general:

- 68% of the target audience takes yoga classes two or more times a week.
- Of a set of nine values, the three most important to 66% of the target audience was first, *being of sound body, mind and spirit*. Second, *fun and enjoyment in life* and *warm relationships with others* both resulted in equally important values.

- The two top reasons chosen, for attending a yoga and toning/chanting workshop, by the majority of the target audience were first, for physical health and second, for emotional well-being.

Theme 5 - Experience with biofeedback devices:

- While 38% of the target audience had never used any biofeedback devices, and 47% of the target audience use biofeedback devices either on themselves or on others for the purpose of heart rate monitoring, pain management, and/or stress reduction, the data revealed that 15% of the target audience have used biofeedback devices on themselves or others for the purpose of voice analysis or emotional management.

In short, the designer identified three instructional needs, two of which were concrete performance base needs: 1) Barros' need to learn a toning technique and 2) Barros' need to teach prospective yoga students a toning technique. The third instructional need was an abstract need: 3) to influence students' attitudes about toning. These instructional needs were then used as input for a *Goal Analysis* which was conducted for the purpose of clarifying the aims of the instruction.

Goal Analysis

According to Mager (1997), goal analysis is best used when someone expresses an abstraction that is in need of clarification. Some resulting statements from the needs analysis report proved harder to define and translate into concrete performances. Thus, the designer used Mager's (1997) goal analysis tool to conduct a systematic examination to translate the statements to concrete goals. The designer began with making distinctions between the statements taken from the needs analysis, (i.e., those statements that described abstractions from those which described performances).

Statements that described abstractions:

1. know how to bring a consistent tone to the class
2. have some witnessing sense about what goes on when they're toning
3. influence students attitudes about toning

Statements that described performances:

1. Barros learning a toning technique
2. Barros teaching prospective yoga students a technique of toning.

Moreover, the designer used Mager's (1997) five steps in the goal analysis to clarify the goals of the instruction (from abstract to concrete). The five steps involved 1)

Writing down the goal, 2) Listing performances that exemplify the goal achievement, 3) Sorting the list and eliminating remaining abstractions, 4) Describing performances in complete sentences and 5) Testing for completeness. The goal analysis yielded the following three completed goal statements borne out of meaningful but incomplete or abstract statements from the needs analysis:

1. Abstract Statement: Know how to bring a consistent tone to the class.

Complete Goal Statement: The instructor will be able to communicate her interest and collaborate with participants about toning.

2. Abstract Statement: Want students to have some witnessing sense about what goes on when they are toning.

Complete Goal Statement: The participant will be able to tone specific notes which affect emotions correlating with various areas of his/her body.

3. Abstract Statement: Influence students' attitudes about toning.

Complete Goal Statement: The participant will be able to appreciate the benefits of toning by participating in individual and group activities.

The above goal statements represented concrete translations and confirmed for the designer that the goals could be achieved.

According to Mager (1997), the purpose of the goal analysis is to help the designer to determine what people would have to say or do for the designer to be willing to agree that they had achieved the goal (1997).

Consistent with identifying the performance problem using the needs and goals analysis, is for the designer to conduct a learner and contextual analysis as a means of identifying both the limitations and the opportunities to the design or delivery of the

instruction and to better conceptualize the target audience and the instructional environment (Morrison et al., 2001).

Element II - Learner Characteristics

Learner Analysis

The designer conducted a *Learner Analysis* to find out the characteristics, abilities, and experiences of the target audience. First, a document was designed consisting of twelve questions used to guide an interview with Barros and to gather information about her yoga students. The information gathered included general characteristics such as, level of education, and any specific prerequisites, that Barros' students would need to have to benefit from the instructional intervention.

Second, the information gathered from the questionnaire used in the needs analysis revealed other perspectives about the target audience, such as their learning preferences, learning styles, and their amount of knowledge about or experience with the topic of toning.

It is important to note, that the target audience is adult learners. Again, based on data obtained from the needs analysis questionnaire and the learner analysis interview with Barros, the designer was able to determine that a workshop format was an effective instructional layout for adult learners favoring small group activities.

Furthermore, the designer determined that an introductory level course about toning was appropriate because the data revealed that the learners had little or no experience with chanting and toning. More specifically, the data suggest that the learners were most interested in physical health and emotional well being, thus the designer chose

toning over chanting as the topic for the introductory course because it was congruous with a toning technique which fostered physical and emotional wellness. The *Learner Analysis* can be found in Appendix B.

Contextual Analysis

In order to identify the factors involved with both the limitation and the facilitation of the instruction and learning, the designer conducted a *Contextual Analysis* consisting of an interview with SME, Barros and use of an observation checklist of the prospective facilities for the workshop.

The designer explored three types of context as maintained by Tessmer & Richey (1997) and as cited in Morrison et al (2001), in which they believe should be analyzed when designing instruction. The first type is the *orienting context* (Tessmer & Richey, 1997) which centers on the learner and considers three factors such as the “learner’s goals, utility, and accountability” (Morrison et al., 2001, p. 56).

The analysis identified one of the learners’ goals for the instruction to be stress reduction and personal growth. Additionally, the analysis identified the learner’s perceived use or utility for the instruction as being able to manage stress and use toning as a tool to manage emotional behavior. The final factor was in considering the learner’s accountability for mastering the content. In short, the analysis provided insights into the learner’s degree of functionality in releasing stress as being dependent on his/her understanding of how to use correlating tones for specific parts of the body (Tessmer & Richey as cited in Morrison et al., 2001).

The second context type is the *instructional context* (Tessmer & Richey, 1997), which gives information about the physical environment, logistics of scheduling,

and time factors. After careful observation of the facilities the designer concluded that providing instruction about toning would be conducted in a comfortable yoga studio environment. Yoga mats were available to use on a wood floor and ambient lights were also available for introspection and reflection. Mirrors on the wall provided participants visual feedback and a frontal view of the instructor. Furthermore, the analysis revealed a weekend day was the best time for holding the workshop and that the studio facilities could be available for a period of 4 – 5 hours (Tessmer & Richey as cited in Morrison et al., 2001).

The third context type is the *transfer context* (Tessmer & Richey, 1997) allowing the designer to consider the transfer of participants' newly learned method of toning to their daily lives. The observations revealed that the Yoga studio environment provided the opportunity for fostering knowledge transfer (Tessmer & Richey as cited in Morrison et al., 2001). The Contextual Analysis can be found in Appendix B.

Element III - Task Analysis

A *Task Analysis* was conducted for the purpose of “defining the content of the instructional unit” used in the workshop and for assisting in the creation of what a competent toning instructor should look like (Morrison et al., 2001, p.64).

Defining the Content

The first input for the task analysis began with information derived from the needs and goal analysis for the purpose of defining the content and bringing it into focus. The information from the analysis yielded the following goals:

1. To train Barros in a vocal toning technique.
2. To develop an instructional workshop about toning aimed at Barros' yoga students.
3. For Barros' yoga students to appreciate the benefits of toning by participating in individual and group activities.

The second input for the task analysis came from the learner analysis which provided some understanding about the learners' knowledge and their backgrounds as it relates to their experience with the topic of toning and their preferred learning styles. For instance as mentioned earlier, 42% of the target audience had little or no experience with toning, while 71% of the target audience preferred to learn in a workshop setting versus on-line tutorials, printed materials or audio CDs. The designer also used the learner analysis to determine an instructional level appropriate for the target audience as well as the level of detail needed in the content.

Of the three techniques for analyzing tasks, as outline in Morrison et al. (2001), the designer chose to conduct a topic analysis. According to Morrison et al. (2001), a topic analysis can make two identifications, 1) about the content used for the purpose of the instruction and 2) the organization of the content elements that are related to the task analysis. To help the designer identify the types of content and break it down to the appropriate level for the learners, six component structures: "facts, concepts, principles or rules, procedures, interpersonal skills, and attitudes" were used (2001, p. 66).

Creating Competent Instructor Performance

Critical to the project's topic of toning was the act of toning itself. Included among the component structures used within the topic analysis were procedures. In this case, the procedure of toning involved a series of psychomotor steps needed to perform the act of toning. To ascertain the intended instruction from the content, it is important to resolve discrepancies in the performance, i.e., closing gaps between what people can do and need to be able to do (Mager, 1997).

Subsequently, the designer wanted to find out what Barros already could do? What she would need to know to perform a completed toning sequence? And what would signal her that she had completed the sequence? The designer turned to the second SME, Professor Gemmell to walk through the steps of toning.

1. TO BEGIN: Stand up facing mirror – upright posture
2. Breathe – inhale and hold 4 counts, exhale on 4 counts; repeat twice
3. Tone vowel sounds (a,e,i,o,u) beginning on middle C and moving up the chromatic scale to B. (repeat twice)
4. Perform hand signs associated with each vowel sound (repeat twice)
5. Do vowel sounds and hand signs together (repeat 3 times)
6. TO END: Breathe – inhale on 4 counts, exhale on 4 counts

Though all six of the component structures were used in the topic analysis, two of them, *interpersonal skills* and *attitudes* set the designer on an exploration of the effects of toning on the mental and emotional levels of the learner. What preconceptions and misconceptions turn off learners or become barriers to learning? Answering these questions was crucial to the creation of a competent toning instructor. After deliberation

with both SMEs and several edits to the instruction, the following points were also used in shaping the content for the instructional unit:

- Toning is not meditation.
- Toning is not a religious experience.
- Toning is linked to chanting on a fundamental level.
- Unlike singing, toning does not require any musical training.
- Toning is an ancient healing method used long before singing was discovered.
- There are as many ways to express emotions via toning as there are people
- Toning can balance one's physical, emotional and spiritual health
- Toning facilitates emotional management

In summary, using the technique of the topic analysis helped to bring into focus the content for the intended instruction. Because the topic analysis process forced SMEs to work through the steps of the toning technique, the designer was able to get a learner's perspective of the content, providing insight into developing objectives for the instruction, the next element in this instructional design process. For the complete task analysis see Appendix C.

Element IV - Instructional Objectives

In order to focus the content of instruction, the designer developed instructional objectives based on Bloom's (1956) taxonomy and Merrill's (1983) expanded performance-content matrix model (Bloom; and Merrill as cited in Morrison et al., 2001).

Cognitive, Performance, and Affective Learning Objectives

Developing instructional objectives began with reviewing the task analysis which identified the following learner knowledge, tasks, and attitudes:

- Knowledge:
 - Definition of Toning
 - History of Toning
 - Scientific Research about Toning
 - Scientific Research about Toning and Emotions
 - The Cycle of Emotions
 - The Benefits of Toning
 - Interpretation of a Voice Print using the Emotional Management Guide
- Tasks:
 - Toning Technique with associated hand signs
 - Toning a prescribed vowel sound
- Attitudes:
 - Appreciation for toning

The information was grouped into the cognitive, psychomotor (performance), and affective domains of learning. Though the knowledge level of the learners were assessed for beginners, and was consistent with Bloom's (1956) taxonomy of labeling the lowest level knowledge, such as recall, within the cognitive domain of learning, the designer also devised related activities that helped to direct learners to accomplish the

objectives on Bloom's (1956) higher intellectual levels, such as application, and analysis (Bloom as cited in Morrison et al., 2001).

Psychomotor and Affective Learning Objectives

Based on Merrill's (1983) Expanded Performance-Content Matrix Model, the designer developed a Performance-Content Matrix (see Appendix D), to classify objectives primarily for the psychomotor and affective domains (Merrill as cited in Morrison et al., 2001).

Both the Task Analysis and the Performance-Content Matrix used the same content component structures (e.g. facts, concepts, principles and rules, procedure, interpersonal, and attitude), allowing the designer continuity of focus for the content.

In short, the goal of the instruction was to give Barros' prospective yoga students an introduction to toning, its benefits, and its relationship to the management of their emotions. Additionally, the goal conveys the designer's intent to impact three learning domains: cognitive, psychomotor, and affective. More specifically, based on the content/performance matrix, the designer developed and classified seven cognitive domain objectives, two psychomotor (performance) objectives, and one affective objective. Each objective includes: 1) a performance, 2) a condition under which the performance is carried out, and 3) a standard against which the performance is measured. The learning objectives are listed in Appendix D.

Element V – Content Sequencing

According to Morrison et al. (2001), after the learning objectives for the instruction has been written, designing the instruction can begin, and significant to the

designer is to determine the most effective and efficient method of improving the learner's understanding of the content. As suggested by the research in the literature review, this can be done through content sequencing in which presentation of the content relates to the objectives in a productive order (2001).

Sequencing Objectives

To help the learner achieve the objectives in the instruction, the designer determined a means of structuring the content for the learner in a form that facilitated learning and increased the depth of the learner's processing.

For instance, getting from the objectives to sequencing the content, the designer used the performance content-matrix again, but this time it was used as a framework to integrate three content sequencing strategies based on Posner's and Strike's (1976) sequencing themes as cited in Morrison et al.(2001). A brief description of each of the three strategies used in the design process follows:

- *Learning-Related Sequencing* considers the content based on the needs of the learner, such as identifiable prerequisites, level of familiarity, difficulty, interest and development.
- *World-Related Sequencing* is based on relationships identified in the content as being spatial, temporal, or physical.
- *Concept-Related Sequencing* arranges the content based on the organization of the world conceptually or logically.

The learning-related sequence is comprised of five concepts: *Identifiable Prerequisite, Familiarity, Difficulty, Interest, and Development* (Posner & Strike as cited

in Morrison et al., 2001). The following describes two examples of how the designer used two concepts in the learning-related strategy to facilitate the sequencing process.

For learner *interest*, the designer incorporated vocal profiling content as a strategy for learner participation, which involved an activity using biofeedback equipment to capture each participant's own unique voice print. This activity was placed at the beginning of the workshop to evoke an attitude of curiosity and to heighten learner motivation.

For learner *difficulty*, content level was addressed. Based on the learner's prior knowledge, the designer presented simple concepts first followed by more advanced concepts. A sample outline below represents the content arranged based on levels of cognitive processing:

Cognitive processing based on prior knowledge – *Simple*:

1. Recalling: Forms of toning—those raw universal sounds of moaning, sighing, laughing, sneezing, belching, screaming, and coughing.

Cognitive processing based on the International Phonetic Alphabet –

Advanced:

2. Application: Toning elongated vowel sounds a, e, i, o, u, with correct international phonetic pronunciation, ah (father), ay (hay), ee (see), oh (low), oo (too).

The world-related sequence was selected because the procedure of toning suggests “temporal relations that occur in the real world” (Posner & Strike as cited in Morrison et al., 2001, p. 115). The designer organized the procedure of toning (e.g., *How to Tone via a Specific Toning Technique*) based on a temporal sequence. Additionally, the content about *The History of Toning* revealed another temporal sequence, “a time line to

sequence content” which was arranged chronologically (Posner & Strike as cited in Morrison et al., 2001, p. 115).

In the concept-related sequence, the designer selected content sophistication, which involved for example, presenting the two basic sensations of emotion described as *pain and pleasure* as simple concepts and then proceeding to the complex *cycle of emotions*.

In short, the designer sequenced the content to appeal to learner interest, arranged the content from less difficult to most difficult, presented a temporal sequence for both *The History of Toning* and *A Toning Technique* and presented content from simple to complex. Then using the performance-content matrix, the designer sequenced the content types to relate to the objectives.

Element VI – Instructional Strategies

The designer combined the types of content, the learner’s performance objectives, and the two-component prescriptions to facilitate the instructional objectives for the learner. The following section describes the prescriptive strategies that were integrated as a component of the matrix.

To achieve the goal of motivating the learner to construct meaningful relationships between prior learner knowledge and the new knowledge presented, the designer embedded into the instruction four generative strategies, “recall, integration, organization and elaboration” identified by Jonassen (1988). The following are brief descriptions of how the designer made use of Jonassen’s (1988) four generative strategies

based on Morrison's et al. (2001) explanation for their best application (Jonassen as cited in Morrison et al., 2001, p. 125):

- *Recall*: Best used for rehearsal-practice, repetition, review, mnemonics, (Morrison et al., 2001). The designer used this strategy to facilitate learner's recall of historic and scientific facts about toning and practice on the procedure of toning.
- *Integration*: Best used for paraphrasing, producing questions or example from new content and converting it into a simple or easy to remember form (Morrison et al., 2001). The designer used this strategy by asking participants' questions about expressing their feelings through sound and having participants generate examples of universal sounds that human beings make such as coughing, sneezing, humming, yawning, etc. This strategy was helpful in assisting learners to grasp concepts, principles and rules within the matrix.
- *Organization*: Best used for analyzing key ideas, outlining, and categorizing to assist learners in identifying the connection of new ideas to existing ideas (Morrison et al., 2001). The designer used this strategy for helping learners with the actual procedure of toning; then participants analyzed key ideas about the toning procedure through group discussion.
- *Elaboration*: Best used for "generation of mental images, physical diagrams and sentence elaborations" to allow learners "to add their ideas to the new ideas" presented (Morrison et al., 2001, p. 128). The designer used this strategy to facilitate participants' interpretation about their own voice prints.

These generative strategies served as different information processing strategies and were then integrated with components of a two-part prescriptive strategy.

The first component of the prescription is called the *initial presentation*, describing how information is first presented to the learner. A generative strategy prescribed for the second component assists the learner in an active process of learning that yields more depth of meaning and the ability to retain the learning for an extended time (Morrison et al., 2001).

See examples of the generative and two-part prescriptive strategies listed on the *Sequencing Objectives and Instructional Strategies Matrix* in Appendix E.

Element VII – Designing the Message

Message Design Process

After designing the instructional strategies, the designer prepared instructional materials for presentation. The message design for the workshop was conveyed through a PowerPoint presentation and an Administrative Guide, which represent two types of interfaces between the learner and the instruction being presented. Morrison et al. (2001), credits Simon (1981) as suggesting that such an interface is an “artifact of the design process that will endure” . . . “it will serve its purpose if it is appropriate for the learner” (Simon as cited in Morrison et al., 2001, p. 149). Consequently, to focus and enhance participants’ attention on, and understanding of, the instruction, the designer used pre-instructional strategies, signaling strategies, and visuals, all of which are treated in detail in the following sections.

Pre-instructional Strategies

According to Morrison et al. (2001), a pre-instructional strategy is a method for learner readiness of the instruction and the process of selecting such a strategy is

based on variables such as, “function, content structure, target audience, and task attributes” (Morrison et al., 2001, p. 145).

The designer used three of the four pre-instructional strategies (pretests, behavioral objectives, overviews, and advance organizers) identified by Hartley and Davies (1976) for introducing the topic of toning as well as preparing learners for the workshop instruction (Hartley & Davies as cited in Morrison et al., 2001).

The first pre-instructional strategy that was used was an *advance organizer*, which can be of two forms, comparative and expository. When learners are unfamiliar with the content, Morrison et al. (2001) suggests that an organizer should facilitate the integration of relevant information with existing knowledge of the learner and be expository in nature. On the other hand, when learners are familiar with the content, then a comparative organizer should be used to assist learners to make a comparison with the new content and their existing knowledge about the information (Morrison et al., 2001).

Earlier assessments indicated that participants were unfamiliar with the topic of toning, thus the designer used an expository organizer to facilitate learners’ participation in a workshop about toning for emotional management. The expository organizer was essentially an orientation to the workshop to introduce two main points: 1) Vocal Profiling & Voice Prints and 2) the VoiceBio Informed Consent. These points were highlighted on the second screen of the PowerPoint presentation.

The second pre-instructional strategy used was a *pretest*. According to Morrison et al. (2001), a pretest is typically used to assess the learners’ prior knowledge, whereas a *pre-instructional pretest* is a strategy that directs learners’ attention to the main ideas in the instruction. For example, the designer created a word game as a pre-

instructional pretest to heighten participant awareness for toning and its link to the emotions, and to signal participants to key terms used in the workshop instruction.

For the third pre-instructional strategy, the designer used an *overview* which provided an agenda of what participants were to expect, this overview highlighted the various activities centered on the art of toning. This overview was also placed in the PowerPoint presentation after the workshop orientation highlights.

Finally, the set of instructional objectives developed in the fourth phase of the ID process was integrated into the message design plan document to maintain consistency toward achieving the workshop instructional goals.

Signal Strategies

As Morrison et al. (2001) noted, part of the process of designing the message is to ensure that it is articulated well and directs the learner to the instructional goal.

Although the pre-instructional strategies described in the previous section were mainly used to signal the learners to the general arrangement of the content, another approach the designer used was to alert or direct learners attention to a specific topic within a section of the instruction. Outlined below are two of the five common text structures identified by Armbruster (1986), and that the designer used to signal important content for the learner:

- Temporal sequences – The designer used this strategy for the procedure (e.g., signal words such as, first, second, third step, etc. facilitated the learning process) of toning vowel sounds using hand signs.

- Definition and example structures – The designer used the structure of presenting a definition followed by an example to reinforce the learning; first, the concept of toning was defined, and then several examples of toning, e.g., moaning, yawning, humming, were offered. (Armbruster as cited in Morrison et al., 2001).

It is important to note, that the above signaling structures didn't add new information to the content, but emphasized and directed the participants' attention to specific messages being conveyed (Meyer as cited in Morrison et al., 2001).

Two other methods used in signaling learners to the content's structure involved using typographical and explicit signals. For typographical signals, the designer used headings and layout. For example, headings were used throughout the Administrative/Instructor Guide to signal change of ideas and aid in the organization of the information. Additionally, to achieve consistency in the development of the Administrator/Instructor Guide, the designer used a word processing template based on Darryl L. Sink's & Associates' (2001) workshop design layout. This particular layout divided pages into vertical and horizontal spaces to achieve "white space" and to better facilitate the learning signals (Morrison et al., 2001, p. 154).

Moreover, the manipulation of information to provide signals in the PowerPoint presentation was achieved by varying the type, i.e., bold, italics, and change in type size to signal important and new information. For explicit signals, the designer used signal words, such as first, second, next, then, etc., to alert the instructor to steps of the various activities outlined in the Administrative/Instructor Guide.

Visuals

Based on the view that “pictures can perform in text,” the designer used pictures that perform three of the five learning functions identified by Levin (1981): representative, interpretive and transformative (Levin as cited in Morrison et al., 2001, p. 156).

For example, the designer chose two images. One is a close up of a man’s face squinting. The other is a close up of a woman’s face with eyes opened wide. They represent a negative and positive emotion respectively. Furthermore, they serve an interpretative function by helping learners interpret what they perceive as abstract concepts of emotion. The two images also were transformative because they served as anchors to help learners recall the cycle of emotions introduced as an earlier learning objective.

All the pre-instructional strategies, signal strategies and visuals used in this project are outlined in detail in the *Message Design Plan* document (see Appendix F).

Element VIII – Development of Instruction

For developing the instructional materials, the designer used the learner analysis, the sequenced objectives and strategies matrix, and the message design plan as guides. This section, divided into three subsections, addresses 1) the heuristics used for developing the instruction, 2) the instructional delivery methods used for the workshop and 3) the translation of the design into instruction.

Instructional Heuristics

The heuristic capability of the design model allowed the designer to modify and make adjustments as needed; learning what worked and didn't work. Four of the five heuristics recommended by Morrison et al. (2001) and that helped the designer develop instruction for the workshop follows:

- Concrete / Abstract – As mentioned in the literature review, Sadoski, Goetz, & Fritz, (1993) maintained that “a mix of abstract and concrete information increases both the learner's interest and recall of the information” (Sadoski, Goetz, & Fritz as cited in Morrison et al., 2001, p. 172). To make the text more comprehensible for the participants, the designer used concrete words to help them get a mental image (e.g., a definition of *toning* was explained further using the words *yawning*, *humming*, and *groaning*). Visuals were also provided as referents throughout the PowerPoint presentation to help make the text more concrete (e.g., the concept *cycle of emotions* was explained using an illustration depicting emotional disturbance).

- Step Size – The designer was able to control the step size of the instruction based on Morrison's et al. (2001) suggestion of making “explicit references back to what the learner had previously learned” (2001, p. 173). Keeping with this theme, the designer provided time for discussion or reflection at the end of each of the five workshops' sections to review key points.

- Pacing – In reference to the text materials, Morrison et al. (2001) maintained that, “pacing is a function of the number of examples, problems, interactions, or exercises presented with an idea” (2001, pp. 173-174). The designer controlled the pacing of the instruction by varying the number of examples and activities in each of the

six sections of the instruction. For instance, in Section 2 of the workshop, *Introduction to Toning*, there were five examples given that depicted toning and one interactive toning activity that engaged all of the participants, whereas, in Section 4 there was a 20 minute rotation of three individualized activities going on at the same time, which consisted of a prescribed personal toning activity with instructor, a voice print session, and a crossword game activity.

- Consistency – As suggested by Morrison et al. (2001), “using consistent terms throughout a unit can aid learner understanding” (2001, p. 174). To reduce the cognitive load and confusion for the participants, the designer used consistent terms and definitions throughout the instruction. (e.g., the term *vocal profiling* was used consistently instead of interchangeably with *voice analysis*).

The Instructional Delivery Methods

For the instructional delivery, the designer chose three methods, lecture presentation, small group activities, and self-paced instruction as components of the workshop format.

The lecture presentation was selected as the delivery method for conducting an orientation to the workshop and for presenting related subject matter on the topic of toning.

The small group format served as both a teaching and learning experience for the participant. Small group activities, designed into the instruction, promoted active learning and provided the participants experiences in listening to others as well as opportunities for expressing themselves. For example, in the toning icebreaker activity,

participants' introduced themselves by stating their own name followed by toning the syllables of their name, and then led the rest of the class in toning the syllables with them.

According to Morrison et al. (2001), "a self-paced unit typically includes a great deal of active learning" (2001, p. 187). The workshop provided opportunities for self-paced active learning based on Boyatzis' (2001) theory of *Self-Directed Learning* (Boyatzis, 2001). The designer developed two individualized activities to foster self-paced active learning. For example, a word-game activity was provided after a lecture presentation to activate information processing and to allow learners the opportunity to check their own understanding.

Translation of Design into Instruction

The designer reviewed the instructional objectives to ensure each was addressing the content or performance to achieve the instructional goal of the workshop, which, was to give Barros' and her prospective yoga students an introduction to toning, its benefits and its relationship to, and management of their own emotions.

The designer developed a *Workshop Sequence of Instruction Matrix* based on Posner and Strike (1976) *Sequencing Schemes* to guide the development of the workshop and the following related instructional materials (see Appendix F for the Workshop Sequence of Instruction).

1. Administrative/Instructor Guide:
 - a. Getting Started. This section provides an instructor with information for teaching the course. It addresses preparation, and how to start and end the course.

b. Workshop Overview. This section includes goals of the course, and the learning objectives that the participants will be able to achieve after taking the course.

c. Instructor Script. This section provides an instructor with the overall instructional sequences for the workshop and a scripted guide throughout the course.

2. PowerPoint Presentation:

a. Primarily for organization, the PowerPoint served as an outline and overview for the workshop, and

b. as a means to: present objectives of the instruction, present images for abstract concepts, and assist in demonstrations of the toning technique

3. Two Handouts:

a. Chart of Emotional Characteristics of the Notes

b. Emotional Management Guide

The above-mentioned deliverables for this workshop prototype can be found in Appendix G.

Element IX – Evaluation

Formative Evaluation – The Methods

As the instruction for the workshop developed, it was important for the designer to have some feedback for making improvements in the instruction. For this project, four formative evaluations were conducted, three in which the designer observed components of the workshop as the instruction evolved. The fourth evaluation

specifically emphasized the measurement of outcomes upon completion of the workshop prototype. All four of the evaluations focused on how well the instruction met its objectives.

The purposes for conducting the formative evaluations were, to improve the instructional materials, to determine the usability of the instructional materials, and to gather data about the audience's interest in toning. Moreover, formative evaluations allowed the designer to refine and tweak the instruction through conducting at different phases of the instructional design process one-to-one trials, small-group trials, and field *trials* (Dick & Carey as cited in Morrison et al., 2001).

The first formative evaluation was conducted at the beginning stage of developing the instructional materials. The method used for the evaluation was a *one-to-one trial* (Thiagaran, Semmel & Semmel as cited in Morrison et al., 2001) in which, the designer tested the instructional materials with one learner; a college student from CSU, Chico.

The testing involved the learner completing a word game activity. The learner performed this process twice as there were two different word game activities. This type of developmental testing allowed the designer to observe and take notes concerning clarity and feasibility of the word game activities. The designer used the information from the one-to-one trial test to improve the layout and to shorten the number of items in the word game activities.

Another one-to-one trial method was used for the second formative evaluation. It was important that Barros became familiar with the Vocal Profiling assessment in order to convey its function and to foster confidence in workshop

participants; another reason for the evaluation was for the designer to test the feasibility of Vocal Profiling. It was necessary that a voice print was conducted within a five minute period on one individual. The designer solicited help from a colleague to assist with the technicalities of capturing the voice prints, leaving the designer free to observe the overall vocal profiling activity as an evaluator.

The Vocal Profiling assessment component of the instruction with Barros was tested and observations made about her progress during the entire assessment. The assessment involved six steps; first, taking a voice print, second, studying a chart on the Emotional Characteristics of Notes, third, identifying the lowest tone from the voice print, fourth, toning the identified tone for five minutes, fifth, taking another voice print, and sixth, studying an Emotional Management guide to compare the two voice prints and interpret the findings. Though Barros did well on understanding the voice print process and identifying her lowest note from her voice print, she was having difficulty in using the handouts.

The Vocal Profiling evaluation with Barros helped the designer refine the two handouts, Emotional Characteristics of Notes and the Emotional Management guide by using color codes and legends to facilitate their use. In addition, it was determined that signal questions should be put in the instruction to assist the instructor in guiding the analysis and interpretation of the voice prints for the participants.

For the third formative evaluation, a preliminary draft version of the instruction was used and the method consisted of a small-group trial. The main purpose for this evaluation was to identify the strengths and weaknesses of the PowerPoint presentation, the Administrative Guide, and the instructor's performance of the toning

technique. A draft of the Administrative guide had been given to Barros two weeks before for her to become more familiar with the topic and the sequence of activities.

While observing Barros' delivery of the PowerPoint presentation, it became apparent to the designer that though Barros was able to follow the PowerPoint slides with relative ease, she was uncomfortable with speaking about toning off the top of her head, thus, she was not able to expound on the points outlined in the PowerPoint presentation. To remedy this, the designer re-placed the more generically written version of the instruction in the Administrative Guide with a conversational script for her to use during the presentation.

Furthermore, Barros was having difficulties following the *Trainer's Notes* embedded in the Administrative Guide, which were there to direct the instruction. The designer revised the layout by replacing all *Trainer's Notes* with directions for the instructor in a column on the left side of the page titled *Action – You Do* to correlate with the right side of page titled *What You Say*. These changes served to facilitate navigation in section 3 – Instructor Script, of the Administrative guide.

In regards to training Barros on the toning technique, the trial test consisted of viewing a video of Vocal Professor Gemmell's instruction to a vocal student demonstrating the vowel tones with their associated hand signs. As the designer observed Barros' performance, it was found that her musical abilities as a piano player, her familiarity with the chromatic musical scale, and the vowel tones provided her the confidence to execute the toning procedure effectively. Barros practiced with the latest revision of the administrative guide and the video of the toning demo for one week before the designer's scheduled field testing of the actual workshop prototype.

For the fourth formative evaluation, the designer used a field trial method to examine the technical aspects of the workshop prototype with participants under realistic conditions at Barros' yoga studio. One purpose of the prototype was to experience how the workshop would look and work. According to Morrison et al. (2001), unlike the design documents that primarily describe instruction, technical prototypes allow for realistic experiences of the instruction. Though the downside to the prototyping process was that there was more work upfront in preparation in terms of cost and time, nevertheless, as an extension of the design stage of the ID process it satisfied the scope of the designer's thesis project thereby establishing the workshop prototype as a demonstration of what could or would be produced as a final deliverable.

Based on the needs analysis a sample group of four individuals were selected as workshop participants for the field test of the prototype according to the following criteria:

1. Little or no chanting/toning experience
2. Little or no music training
3. Baby boomer (age 40 – 60)
4. Speaks and understands English
5. Is taking yoga or has an interest in taking yoga classes

Email correspondence was sent to the participants', prior to the workshop field test date, informing them of the purpose of the designer's research project and their involvement as a participant, which included a monetary award of \$25 per individual.

At the workshop evaluation, participants were acknowledged for their participation, informed about their involvement and rights as a participant, then were

asked to sign an Informed Consent Form for the project before the evaluation process began. Additionally, through an orientation to the workshop (see Preliminary Workshop Documentation in Appendix H), participants were told about the evaluation process and the objectives of conducting the evaluation, the background of developing the workshop, its instructional materials, and that the materials were being tested individually and collectively with their participation.

The designer began the evaluation with conducting voice print sessions for each participant. This was done in conjunction with another activity so that when a participant was not having a voice print session they were asked to complete a word-game activity about toning. The word-game activity served as a pre-test for the designer to find out the level of retention of the information.

Barros then began the PowerPoint presentation, giving a general overview of the workshop. The participants participated in three performance based activities, one of which required practice and feedback.

During the workshop, the designer and the workshop assistant served as evaluators and used the first evaluation instrument, an *Observation Checklist* to observe Barros as instructor and the participants' attitudes. At the completion of the workshop, participants were asked to complete the second evaluation instrument, a *Questionnaire* and to participate in a *Focus Group*, the third evaluation instrument. Lastly, Barros was asked to complete the fourth evaluation instrument, an *Instructor Questionnaire*.

Detailed findings from the four evaluation instruments used can be found in the Results Chapter – IV.

Evaluation – The Instruments

In addressing considerations for developing assessment items, the designer followed suggestions according to Morrison et al. (2001) that first it was important to classify learner's outcomes as to whether they pertained to knowledge, skills and attitudes. Particularly for the cognitive domain, the designer ensured that a direct relationship existed between instructional objectives and test items.

For the affective domain, the designer aimed to evaluate learner attitudes, i.e., what learners liked and did not like about the instruction and their suggestions for improving it.

For the psychomotor domain, specifically behavioral objectives, the designer assessed performance behavior with direct observation. The use of multiple instruments to ensure reliability of the instructional outcomes is recommended (Morrison et al., 2001), thus, the designer used the following instruments to evaluate the workshop and related materials (see Appendix I).

- Observation Checklist
- Participant Evaluation Questionnaire #1
- Focus Group
- Instructor Evaluation Questionnaire #2

CHAPTER IV

RESULTS OF WORKSHOP FORMATIVE EVALUATION

Findings

The following summarizes the findings from each assessment instrument discussed in the Evaluation section of Chapter III. Data from all instruments revealed eight significant themes that respond to the two main research questions posed for this project. How effective are workshop activities for delivering the instruction to the target audience? Five themes were categorized in response to this question and centered on the quality of different aspects of the workshop: 1) delivery of instruction, 2) workshop materials, 3) instructor's presentation, 4) workshop activities, and 5) overall workshop design.

What are the effects of toning on the attitudes of adult yoga students? The remaining three themes were categorized in response to this question and centered on participants' attitudes and knowledge about toning: 6) perceived learning about toning, 7) actual learning about toning and 8) the personal benefits of toning.

Observation Checklist

To facilitate the observation process, the designer made observation notes while observing the instructor and participant #4. The assistant made observation notes while observing participants #1, #2, and #3. Findings fall under themes one through five

and theme eight. All observation data was compiled in a table (see Table 1 in Appendix J).

Results of Objectives from Observation Checklist. Results for nine of the ten instructional objectives developed for the workshop were also compiled from the *Observation Checklist*. The designer found that all participants met five of the cognitive objectives by responding appropriately when asked to define toning; when asked to discuss toning sounds linked to emotions; when asked to fill-in-blanks for the *Cycle of Emotions*; when given a preliminary voice print to analyze; and when given a second voice print to interpret.

Due to lack of time, two participants were not able to meet the cognitive objective involving the completion of the *Crossword Puzzle* activity and three were not able to meet the cognitive objective related to the completion of the *Chunk Puzzle* activity. All participants met both psychomotor objectives by performing according to the instructor's performance checklist when toning vowels with associated hand signs and when toning a prescribed vowel sound followed by a sustained keynote. All participants met the tenth instructional objective by completing the *Evaluation Participant Questionnaire* on which participants were able to indicate their level of appreciation for toning and its benefits immediately upon completion of the workshop (see Appendix J, Table 2).

Participant Evaluation Questionnaire

The twenty-seven-item Evaluation Questionnaire consisted of sixteen Likert Scale items that assessed participants' satisfaction with the workshop activities and delivery of instruction. Additionally, there were ten Likert Scale items that assessed

participant's knowledge of and satisfactory experience with toning in the workshop. The last item was an open-ended question asking participants what the designer should do to improve the quality of the workshop. A narrative for each response follows. For findings at-a-glance see Appendix J, Table 3.

Delivery of instruction. All four participants were satisfied with the scope of information presented and the delivery of the instruction including the usefulness of the PowerPoint slides in facilitating understanding of the subject matter. One participant commented that the subject matter was very interesting. Three out of the four were satisfied with the quality of the PowerPoint presentation. The one participant who was dissatisfied with the PowerPoint added the following comment, "I need a few words – not long sentences, although, I loved the singing video."

Workshop materials. Three of the four participants indicated their satisfaction with the reading material in clarifying information presented in the workshop. The participant who indicated dissatisfaction added comments, "too techy" and "totally over my head." The same dissatisfied participant also added the suggestion to not pass out the *Toning and Emotional Management Guide* until the handout on *Emotional Characteristics of the Notes* had been clarified.

Instructor's performance. The knowledge and professionalism of the instructor were acknowledged as satisfactory by all four of the participants.

Workshop activities. Half of the participants were satisfied with the game activities as motivational experiences for them in the workshop. One participant commented that the *Chunk Puzzle* activity was too much. In comparison, all four participants indicated a high level of satisfaction with the voice print analysis process.

Overall workshop design. All four participants were satisfied with the quality of the overall workshop and with the number of activities and breaks that were included. Three out of the four were dissatisfied with the amount of time given to discuss information with other workshop participants. One person failed to indicate his or her level of satisfaction concerning the time dedicated for feedback on each activity and therefore the designer did not count it. However, time dedicated to practice toning skills and for feedback on each activity was satisfactory for three of the four participants. Although all participants indicated satisfaction with the length of the workshop, they each wrote additional comments suggesting that the workshop be extended beyond two and one-half hours so that even more time could be given to discussion, sharing, and toning. Another participant commented, "I am a visual and auditory learner. I do not do well reading and retaining information one time through. I would prefer more group toning using the toning technique and lecture with slides."

Perceived learning about toning. Three of the four participants believed that they could recall two scientific aspects of sound introduced in the reading material and explain what *Toning* is as described in the workshop. All four participants believed they could describe the relationship between emotions and toning as presented in the workshop whereas only half believed they could perform the toning technique as demonstrated in the video clip.

Actual learning about toning. The designer found that a short-term retention of learning did take place as participants were able to recall information presented in the reading units and from the PowerPoint presentation. All four participants answered correctly to the two statements: 1) *Sounds below 16Hz are called ELFS for extremely low*

frequencies and 2) *An emotion is an attitude linked to a sensation*. Three of the four answered correctly to the statement: *Words utilized to create meaning and are repeated in recitation are examples of Toning*. Only one of the participants answered correctly to the statement: *Toning sounds such as, yawning, sneezing, and belching are examples of how to form my vowels while toning*.

Personal benefits of toning. All four participants indicated satisfaction with the usefulness of the information and with their ability to use toning to begin managing their own emotional imbalances.

Focus Group

Responses to the *focus interview questions* were categorized under seven of the eight themes (see Appendix J - Table 4).

Instructor Evaluation Questionnaire

The instructor was asked to complete a six-item *questionnaire*. Responses were categorized under five themes (see Appendix J - Table 5).

Revisions

Based on the designer's observations, the following revisions were made to the Administrative/Instructor Guide, the PowerPoint slides, two Handouts, and the Participant Evaluation Questionnaire.

1. Administrative/Instructor Guide

- To ensure participants receive the workshop guidelines and agenda one week before the workshop, the designer inserted a brief explanation entitled *Give*

Participants Preliminary Information Prior to Workshop under the Getting Started Section.

- To ensure a professional delivery of the workshop, the designer included *Qualities of a Good Instructor* under the workshop Overview Section.
- To ensure clarity between the instructor's script and the PowerPoint slides, the designer added a replica of each PowerPoint slide to correlate with the instructor's script.

2. PowerPoint Slides

- To provide a non-distractive background for the instructor's welcome remarks, the designer added a black screen as the first PowerPoint slide.
- After the formative evaluation of the workshop, participants stated interest in continuing to learn more about toning. This prompted the designer to add a "call to action" slide at the end of the presentation to direct participants to books and online resources.

3. Emotional Characteristics of the Notes Handout

- To enhance readability and differentiate content on the chart, the designer added color to various sections.
- To navigate more efficiently the information on the chart, the designer added a color-coded legend.

4. Toning and Emotional Management Guide

- To enhance readability and differentiate content on the guide, the designer added color to various sections.

- To direct the usability of the guide, the designer added numbers above the twelve columns that identify each of the twelve notes (frequencies) of the chromatic musical scale, its associated toning sound, and emotional correlate.

5. Participant Evaluation Questionnaire

- The Participant Questionnaire was designed into the Workshop as a permanent feature for the purpose of assessing participants' immediate reaction to the workshop and corresponding materials. To inform the designer further about participant's feelings on *toning*, three more items were added to the Questionnaire, two of which are Likert scale items that assess participant's beliefs about the personal benefits of toning. The third one is an open-ended question to encourage participants' to write comments about their experiences in the workshop other than suggestions for improvement. The designer also renamed the document *Participant Evaluation Survey* (See Appendix I).

CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

Improving the chanting component of a yoga class for a yoga practitioner was one of the primary goals of this project. The other was to provide the yoga practitioner and prospective yoga students an introduction to toning, its benefits, and its relationship to and management of their own emotions. The designer used a *Nine Elemental Instructional Design Model*, based on Morrison, Ross & Kemp's (2001) Comprehensive Instructional Design Plan, to develop a beginner's workshop that provided training on *toning*, a foundational technique that underlies chanting. Complementary instructional materials were developed consisting of an Administrative/ Instructor Guide, PowerPoint Presentation, and two handouts. All of the components, including the workshop, were evaluated to determine what effects toning had on the attitudes of adult yoga students, as well as how effective the workshop activities were delivered to the target audience.

Element I

In the first phase, *Instructional Problems*, several interviews with the yoga subject matter expert and a brief needs analysis were conducted to identify the instructional need. Three needs were identified: 1) the need for the yoga instructor to

learn a toning technique, 2) the need for the yoga instructor to teach prospective yoga students a toning technique, and 3) the need to influence students' attitudes about toning. The needs were clarified using Mager's (1997) *Goal Analysis* tool, which translates abstract statements to concrete ones confirming for the designer that the goals could be achieved.

Element II

A learner analysis and context analysis were conducted in the second phase, *Learner Characteristics*. From an interview with the yoga practitioner, information about the characteristics, abilities, and experiences of the practitioner's yoga students were defined. Combined with information gathered from the needs analysis, other characteristics were established, such as the target audience's interest in chanting/toning, their amount of knowledge and/or experience in chanting/toning, their learning preferences, their value preferences toward health and life in general, and their experiences with biofeedback devices. The contextual analysis identified factors that would limit or facilitate instruction and learning explored by the designer through three types of contexts: orienting (learner centered – goals, utility, and accountability); instructional (physical environment, schedule and time); and transfer (knowledge transfer from learning environment to real world).

Element III

In the third phase, *Task Analysis*, the designer used the topic analysis technique to define the content used for instruction in the workshop. The analysis also guided the creation of competent instructor performance.

Element IV

Cognitive, Affective, and Psychomotor objectives were developed in the next phase, *Instructional Objectives*, with corresponding measures of the specific learning to be achieved in each objective. The designer classified the objectives based on Bloom's (1956) Taxonomy and Merrill's (1983) Expanded Performance-Content Matrix Model.

Element V

Design of the instruction began with phase five, *Content Sequencing* by which the designer integrated Posner and Strike's (1976) three sequencing strategies (Learning-Related, World Related, and Concept-Related) to facilitate learning and increase learners' depth of processing.

Element VI

Prescriptions, which consist of initial presentations (i.e., how information is presented to learners) and a generative strategy (to motivate learners to construct meaningful relationships between prior learner knowledge and the new knowledge presented), were employed in phase six, *Instructional Strategies*. To organize and match the types of content, the learner's performance objectives, and the two-component prescriptions, the designer created a Sequencing Objectives and Instructional Strategies Matrix.

Element VII

In the seventh phase, *Designing the Message*, the designer prepared the message design for the workshop, which was conveyed through a PowerPoint Presentation and an Administrative/Instructor Guide. To focus participants' attention and understanding of these two types of interfaces between learner and the instruction being

presented, the designer used pre-instructional strategies, signaling strategies, as well as functional visuals.

Element VIII

Development of the workshop and instructional materials began in phase eight, *Development of Instruction*. To allow the designer to make adjustments as needed while learning what worked and did not work, the designer used instructional heuristics, such as a mix of abstract and concrete information; step size of instruction; pacing of instruction; and consistency in the use of terms. After instructional delivery methods were determined, the designer translated the workshop and instructional materials into instruction using a Workshop Sequence of Instruction Matrix based on Posner and Strike (1976) Sequencing Schemes.

Element IX

In phase nine, *Evaluation*, four assessment instruments were created: 1) Observation Checklist, 2) Participant Evaluation Questionnaire, 3) Focus group questions, and 4) Instructor Evaluation Questionnaire. Also four formative evaluations were conducted, three in which the designer observed components of the workshop as instruction evolved. The fourth evaluation measured outcomes of the workshop and like the other evaluations, focused on how well the instructional objectives were achieved.

Four participants with little or no chanting/toning experience, little or no music training, between ages 40 and 60, with English speaking skills, and taking or interested in taking yoga classes attended the workshop. Yoga practitioner, Barros was the workshop instructor. During the workshop, the designer and an assistant used an *Observation Checklist* to observe the instructor and participants' performances and

attitudes to determine if the workshop objectives had been met. Upon completion of the workshop, participants were asked to complete a *Questionnaire* and to participate in a *Focus group* to determine which aspects of the workshop and materials needed improvement. The instructor was also asked to complete an *Instructor Questionnaire* to provide the designer feedback on the instructor's presentation and instructional materials.

The final deliverables were an Administrative/Instructor Guide and a CD containing files for the PowerPoint Presentation and two handouts: 1) Emotional Characteristics of the Notes, and 2) The Toning and Emotional Management Guide.

Conclusions

The workshop and all of its instructional components were successful due to two factors: 1) improvements the designer was able to make as a result of the formative evaluations during early stages in the instructional design process, and 2) the positive reactions received from participants and the instructor after the pilot run of the workshop.

The designer surmised that the *Toning and Emotional Management Workshop* has the capability of delivering effective instruction on the subject of toning. It also has the ability to engage and influence learners, and increase their satisfaction with varied activities, and attractive user-friendly materials. Moreover, the workshop gave Barros an assessment of her own training skills on the subject and she has been inspired to continue study in this direction.

Recommendations

The overriding point that kept surfacing on all the assessments, both from the participants and the instructor, had to do with the length of time for the workshop. It was

delivered in too short of a time period. Even during observations of the workshop, the designer could see that participants wanted to continue a discussion or practice the toning technique longer. Four optional activities were eliminated altogether to maintain the overall pace. For these reasons, the designer recommends that the workshop be extended to at least four hours.

Since the completion of this project, another *Vocal Profiling* program has been offered as free software. To reduce cost, the designer recommends using this version of the *Vocal Profiling* software to capture participants' voice prints. Furthermore, for instructional designers, *Vocal Profiling* can serve as a tool to assess learners in terms of stress and emotional states, and help the designer to facilitate customized instruction for the learner.

Preplanning for the workshop should be given due time and consideration. The designer recommends that the workshop instructor and assistants train on the *Voice Analysis* program in advance to ensure they are comfortable with explaining the voice print and analysis process. Also, they should train in advance on the *Korg tuner* (a musical tuning device) to provide appropriate pitches during toning.

The *Chunk Puzzle* activity is done near the end of the workshop as part of the second rotation process when participants are also getting their second voice print. To avoid losing an already established participatory mood by this time in the workshop and to prevent cognitive overload as each participant attempts to complete the activity alone, the designer recommends that the existing eight chunk puzzles be reduced to three or four puzzles with one or two of the puzzles set up as a group activity.

Finally, one particular key recommendation would be to do another test run of the workshop with more than four people for future studies. From a design perspective, more feedback from a larger sample of the target audience would ensure a broader pool of data on which to base improvements and/or revisions to the instruction.

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APPENDIX A

Needs Analysis

8/09/06

Interview with SME - Barros

1. What is your need for offering Dr. Gemmell's toning exercises in your classes?
2. Are you interested in integrating toning and chanting into your yoga certification program?
3. How much time would you want to devote to teaching toning and chanting as part of your existing yoga certification programs?
4. Given the time allotted for chanting in your certification program do you think you'll need more time to present information about Gemmell's toning exercises to allow students time to practice?
5. What is your expertise in toning? In chanting?
6. How are you using chanting in your current yoga classes now? (See question 3 – same process for certification classes)
7. Do you believe the chanting program is effective? How do you know?
8. Have you ever done an evaluation of your yoga classes? If so, how was done?

QUESTIONNAIRE

I am a graduate student from the Instructional Design and Technology Department at CSU, Chico, CA. For my thesis project I am developing a workshop which integrates yoga philosophy with chanting and toning. This questionnaire will help me learn more about your learning needs and preferences. The information you and others provide will assist me in my efforts to provide efficient and effective instruction. Your answers will be handled in the strictest confidence and will be tabulated with those of others to determine usage patterns, content requirements, format preferences, and overall quality. DO NOT put your name on this questionnaire. It will take approximately 5 minutes to complete. When you are done please return it to the person who distributed it to you. Thank you for your time and assistance.

Gender: M ___ F ___ **Age:** ___

Please indicate your answers by placing an x or writing where applicable in the appropriate space.

1. I attend workshops in which I use my voice musically to express my emotions.

- ___ Never
- ___ 1 event a year
- ___ 2 events a year
- ___ 3-5 events a year
- ___ 6-8 events a year
- ___ 9-12 events a year

2. If applicable, the relevance of information regarding the workshops mentioned in question 1 above is generally:

- ___ Relevant to my immediate and future needs
- ___ Relevant to my immediate needs only
- ___ Relevant for my future needs only
- ___ Not relevant at all

3. I take yoga classes:

- ___ Never ___ Twice a month ___ Once a week ___ 2 or more times a week

4. **My level of experience with toning is:**

Advanced Intermediate Beginner None

5. **My level of experience with chanting is:**

Advanced Intermediate Beginner None

6. **Rank the following activities according to importance to you.**

(1=least important, 4= most important) **Example:** My favorite beverage is: 2 Soda
1 Coffee
3 Tea
4 Water

Meditation
 Yoga
 Chanting
 Reflexology (A form of massage in which pressure is applied to certain parts of the feet and hands)

7. **I would be _____ in a yoga workshop that integrates chanting and toning.**

Extremely Interested Interested Disinterested Extremely Disinterested

8. **If I attended a yoga workshop that incorporated chanting and toning I would expect to learn:** (Check all that apply)

Chanting and toning while performing various yoga poses
 A technique of chanting and/or toning
 A vocal technique of managing my emotions
 Balancing my physical, emotional and spiritual health
 Other (Please specify) _____

13. My current occupation: (Check all that apply)

- Music Therapist
- Sound Therapist
- Psychotherapist
- Dance/Drama Therapist
- Massage Therapist
- Yoga Instructor
- Professional Vocalist
- Professional Musician of musical instruments other than the voice
- Alternative Health Care Practitioner - What type?
- Student of what kind of study?
- Other (Please Specify) _____

14. I have worked in my current field of work for ___year(s).

- Less than 1
- 1-2
- 3-5
- 6-10
- 11-20
- 21 or more
- Not working in the field right now

15. Highest formal education I have completed:

- High school Diploma
- Some College
- Undergraduate Degree
- Some graduate courses
- Graduate Degree
- Doctoral Degree

16. I am certified in the following vocation(s): (Please list below)

1. _____

2. _____

3. _____

17. **People look for or want different goals out of life. Please rate the following items in terms of how important it is to you in your daily life on the scale indicated. (1=Extremely Important, 9=Extremely Unimportant)**

Sense of belonging

1 2 3 4 5 6 7 8 9

Fun and enjoyment in life

1 2 3 4 5 6 7 8 9

Warm relationships with others

1 2 3 4 5 6 7 8 9

Self-fulfillment

1 2 3 4 5 6 7 8 9

Being well respected

1 2 3 4 5 6 7 8 9

Confidence

1 2 3 4 5 6 7 8 9

Security

1 2 3 4 5 6 7 8 9

Being of sound body, mind and spirit

1 2 3 4 5 6 7 8 9

Spiritual Enlightenment

1 2 3 4 5 6 7 8 9

18. **Of the above set of 9 values, which one is the most important to you?**
(Please write below)

19. **My reasons for attending a yoga and toning/chanting workshop would be for:** (Check all that apply)

- Personal life skills development
 Emotional well-being
 Physical health
 Job enhancing skills
 Credit for Continued Education
 Spiritual enlightenment
 Other (Please Specify)

20. I would be _____ in certification for a yoga program that incorporates toning and chanting.

Extremely Interested Interested Disinterested Extremely Disinterested

Time Period	Action Taken	Data Collection Activity	Assessment Instrument
Aug 1-9 Aug 16 Sep 6	1. Conduct Needs Analysis a. Distribute questionnaires to Barros two yoga classes, vocal profiling workshop participants and email participants. ● b. Interview SMEs 2. Conduct Analyses: a. Learner & Context b. Content & Task	a. 11 participants fill out questionnaires in Paradise, 17 participants fill out questionnaires in Chico, 6 participants fill out questionnaires in San Francisco and 4 fill out questionnaire via email b. personal 1hr. interview - recorded	Questionnaire Interview – open ended questions
Sep 18-29 Oct 2-13 Oct 16	1. Design & Develop Workshop 2. Develop Instructor Guide for Workshop ● 3. User-test Workshop & Instructor Guide with SME	Formative Evaluations – a. one-on-one trials Formative Evaluation – b. small group trial	Observation Notes Observation Notes
Oct 17- Nov 11 Oct 17- Nov 11	1. Make adjustments to Workshop 2. Make adjustments to Instructor Guide		
Nov 12 Nov 12 Nov 12	● 1. User-test Workshop with participants 2. Conduct Workshop Evaluation – Participants ● 3. Conduct Workshop Evaluation - Instructor	Field Testing a. Observations of Instructor and participants b. Consent form & Instructions c. Topic Assessment d. Voice Assessment Evaluation a. Survey b. Focus Group Personal 20min. Interview	Usability Observation Checklist Written Quiz Voice Print Level-1 Survey Open-ended questions Interview Questions

● Red circle indicates activities that require Subject Matter Expert (SME), Paula Barros' attendance.

APPENDIX B

Learner Analysis

8/16/06

Interview with SME – Barros

1. Will the participants be attending this workshop for the first time?
2. How knowledgeable are the participants about yoga, chanting, toning?
3. What is the level of education of the participants?
4. What are your instructional strategies? (Examples: lecture? Visual materials? Written? Audio? Or a combination?)
5. Do you test participants' cognitive skills? Performance skills? Or both, if so, how?
6. What is your preference for delivering instruction?
7. Do you have workshop materials from workshops you have conducted in the past that I can borrow to help me assess prior content that was taught?
8. How have you evaluated your workshops in the past? Are there standards for the certification process?
9. How did you feel about the workshop? Was it successful? Effective?
10. What are some prerequisite skills, attitudes and aptitudes must the participants possess to benefit from the training? Do you find that you have a range of levels of experience that you must contend with? Is there is a pre-assessment for the application process?
11. Do the participants have the ability to sound out the chromatic musical scale (12 note frequency) on the piano?
12. Do you believe your participants to be motivated and have a positive attitude toward the subject?

Context Analysis
Interview SME – Barros

8/16/06

1. What goals do your participants have for taking or attending this toning and chanting course?
2. How do you believe your participants will utilize the instruction?
3. Are participants accountable for mastering the content that will be presented in the toning and chanting course?
4. Where do you hold your certification workshops?
5. Does the facility have equipment for PowerPoint presentations?
Audio/Visual Equipment?
6. Does the facility have a piano?
7. Can you control the lighting for presentation?
8. Is there anything that would distract or take away from the presentations?
9. Is there a printer to print voice prints?
10. Is the temperature easy to adjust in the facility?
11. Are there tables and chairs available?
12. Can learners eat lunch on site to avoid disruptions?
13. Do participants have easy access to the facility?
14. How do you perceive this course helping the participants do their jobs?

APPENDIX C

Topic: **Toning** (Beginning level)

I. Definition of Toning (Facts):

- A. 'Tone is simply an audible sound, prolonged long enough to be identified. "Toning" is the conscious elongation of a sound using the breath and voice.' (Don Campbell, *The Roar of Silence*).
- B. 'Toning is the process of making vocal sounds for the purpose of balance . . . Toning sounds are sounds of expression and do not have a precise meaning.' (John Beaulieu, *Music and sound in the Healing Arts*).
- C. 'Toning is the use of the voice to express sound for the purpose of release and relief, or to resonate of the physical body and the etheric fields. It is non-verbal sound, relying primarily on vowels, though it may incorporate the use of consonants to create syllables as long as they are not utilized to create coherent meaning. Sighing, moaning and humming may also be recognized as forms of toning. Toning is not chanting as we normally perceive it, although toning may sound like chanting. Chanting uses words as either liturgical texts or incantations for a specific purpose with meaning. (Jonathan Goldman, *Healing Sounds: The Power of Harmonics*).

II. History of Toning (Facts):

- A. Ancient methods of healing – idea is to restore people to their harmonic patterns.
 - 1. Pythagoras - Mathematic Science and Music: music of the spheres, and music as therapeutic tool.

2. Hermes Trismegistus – seven principles of the hermetic philosophy, knowledge of sound as a highly refined science based upon an understanding of vibration as the primary causative form of the universe.

III. Scientific Research on Foundational Laws and Principles of Toning (Facts):

- A. Cymatics – Hans Jenny - study of wave phenomena
- B. Cymatic Therapy –Dr. Peter Guy Manners - use of cymatic instrument as sound generator
- C. Alfred Tomatis, M.D. – specialist in otolaryngology, functions of the human ear and listening, creation of the electronic ear. The Tomatis effect.
- D. Laurel Keyes- Toning can be understood through material science, physiology, psychology as well as the most ancient concepts of man's relationship to his God.
- E. Jonathan Goldman – Basic principles of sound as an energy – resonance, entrainment, correspondence, sound and healing, sound as a 'carrier wave of consciousness', sound and the human voice,

IV. Toning and Emotions (Principles or Rules):

- A. The relationship between toning and the emotions
- B. Balancing physical and emotional health through toning
- C. Managing the emotions using vocal analysis and toning

V. Vocal Analysis and Toning:

A. Preliminary information:

1. Vocal Analysis - Voice print assessment (**Principles or Rules**)
 - a. Take each participant's voice print
2. Reading material (**Facts**)
3. Vowel Toning Sounds (**Concept**)

B. A Series of steps for Toning (**Procedures**):

1. Have each participant close their eyes and tone the first vowel of their first name until breath runs out. (L.K. pg 57)
Examples: Oh for Lois, Ooo for Susie, Ah for Padre
 - a. Repeat twice
2. View video demonstration of Gemmell's toning technique
3. Have participants follow instructor (as a group) and tone Gemmell's vowel sounds (a,e,i,o,u) beginning on middle C and moving up the chromatic scale to B.
 - a. Stand up – upright posture
 - b. Breath – inhale and hold 4 counts, exhale on 4 counts; repeat twice
 - c. Observe instructor tone vowel sounds
 - d. Tone vowel sounds with instructor, repeat 2x
 - e. Observe instructor perform hand signs
 - f. Perform hand signs with instructor, repeat 2x
 - g. Do vowel sounds and hand signs together
 - h. Divide into groups of two for personal practice
 - i. Instructor uses performance checklist to provide feedback

C. Using Emotional Characteristics of the Notes (**Principles or Rules**):

1. Give participants their preliminary voice prints and have them match the two lowest notes on the voice print with their emotional correlates according to a handout entitled The Emotional Characteristics of the Notes.

D. Interpret Emotional Management Guide Sheet – provides the correlates between toning sounds, musical notes, and emotions. (**Principles or Rules**):

1. Discuss Emotional Management guide sheet with participants
2. Distribute each participants first voice prints
3. Have each participant use the Emotional Management Guide Sheet to determine what emotions are affected
4. Have each participant tone the lowest note indicated on his/her voice print for five minutes
5. Take a second voice print on each participant and compare the differences between voice print 1 and 2 using the Emotional Management Guide

VI. Acquiring appreciation for toning (**Attitudes**):

A. Benefits of toning

APPENDIX D

Instructional Objectives

Objective 1: Given a game activity, learners will be able to recall facts and concepts of toning, based on material provided in the workshop. **COGNITIVE**

Objective 2: During a discussion, learners will be able to define toning, based on the definition provided in the workshop. **COGNITIVE**

Objective 3: Given a question, learners will be able to discuss *toning sounds linked to emotions*, based on two images presented in the workshop. **COGNITIVE**

Objective 4: Given an explanation about emotion, learners will be able to identify the *Cycle of Emotions* according to the information provided in the workshop. **COGNITIVE**

Objective 5: Given a video demonstration, learners will be able to apply a technique for toning according to the instructor's performance checklist. **PSYCHOMOTOR**

Objective 6: Learners will be able to analyze a preliminary voice print according to a handout entitled *The Emotional Characteristics of the Notes*. **COGNITIVE**

Objective 7: Hearing a keynote representing the lowest note on their voice print, learners will be able to tone a prescribed vowel sound for 5 minutes. **PSYCHOMOTOR**

Objective 8: Given a game activity, learners will be able to identify one of the benefits of toning according to information presented in the workshop. **COGNITIVE**

Objective 9: Given a second voice print, learners will be able to interpret it according to the *Toning & Emotional Management Guide*. **COGNITIVE**

Objective 10: Given a survey about the workshop, learners will be able to indicate their level of appreciation for toning and its benefits. **AFFECTIVE**

Performance-Content Matrix- for Classifying Objectives – 09/19/06		
Content	Performance	
	Recall	Application
Fact (3)	<ol style="list-style-type: none"> 1. Given a game activity, learners will be able to recall facts and concepts of <i>toning</i>, based on a reading unit provided in the workshop. 2. During a discussion, learners will be able to define <i>toning</i>, based on the definition provided in the workshop. 3. Given an explanation about emotion, learners will be able to identify the <i>Cycle of Emotions</i> according to the information provided in the workshop. 	
Concept (1)		<ol style="list-style-type: none"> 4. Given a question, learners will be able to discuss <i>toning sounds linked to emotions</i>, based on two images presented in the workshop.
Principles and Rules (1)		<ol style="list-style-type: none"> 5. Learners will be able to analyze a preliminary voice print according to a handout entitled <i>The Emotional Characteristics of the Notes</i>.

Performance-Content Matrix- for Classifying Objectives – 09/19/06 (continued)		
Content	Performance	
	Recall	Recall
Procedure (3)		<p>6. Given a video demonstration, learners will be able to apply the technique for toning according to the instructor’s performance checklist.</p> <p>7. Hearing a keynote representing the lowest note on their voice print, learners will be able to tone a prescribed vowel sound for 5 minutes.</p> <p>8. Given a second voice print, learners will be able to interpret it according to the Toning & Emotional Management Guide.</p>
Interpersonal (1)	<p>9. Given a game activity, learners will be able to identify one of the benefits of toning according to information presented in the workshop.</p>	
Attitude (1)	<p>10. Given a survey about the workshop, learners will be able to indicate their level of appreciation for toning and its benefits.</p>	

Note. Based on Merrill’s (1983) Expanded Performance-Content Matrix for Classifying Objectives, see Morrison et al. (2001, p. 103).

APPENDIX E

Sequencing Objectives and Instructional Strategies Matrix					09-21-06
Based on Merrill's (1983) Component Display Theory as cited in Morrison et al. (2001, p. 103)					
Type of Content	Learner's Performance Objective		Example / Strategy	Two-Component Prescription	
	Recall	Application		Initial Presentation	Generative Strategy
Facts	1. Given a game activity, learners will be able to recall facts and concepts of toning, based on information provided in the workshop.			Present a information on historical and scientific facts of toning.	Answer questions related to the facts by completing a crossword puzzle.
	2. During a discussion, learners will be able to define toning, based on the definition provided in the workshop.			Give an example of toning. Show definition on PowerPoint slide.	Ask participants to choose an example from a larger list of examples. Then demonstrate it.
	3. Given an explanation about emotion, learners will be able to identify the Cycle of Emotions according to the information provided in the workshop.			Show explanation about emotion on a PPT slide. Present Cycle of Emotions on a PowerPoint slide.	Have participants discuss what emotion means to them. Have participants complete the sentences of the Cycle of Emotions.
Procedures		4. Given a video demonstration, learners will be able to apply a technique for toning according to the instructor's performance checklist.	Demonstration, Organization, Elaboration, and Practice	Show a video demo of a toning technique.	Ask participants to observe the instructor demonstrate first. 1 st tone the vowels (Repeat once) 2 nd tone the vowels and perform the hand signs (Repeat 2 or 3 times)

Sequencing Objectives and Instructional Strategies Matrix				09-21-06	
Based on Merrill's (1983) Component Display Theory as cited in Morrison et al. (2001, p. 103)					
Type of Content	Learner's Performance Objective		Example / Strategy	Two-Component Prescription	
	Recall	Application		Initial Presentation	Generative Strategy
Concepts		<p>5. Given a question, learners will be able to discuss <i>toning sounds linked to emotions</i>, based on two images presented in the workshop.</p>	<p>1st image: man's face expresses an emotion 2nd image: woman's face expresses an emotion</p>	<p>Show image on PowerPoint slide Show image on PowerPoint slide</p>	<p>For each image ask participants: What might this emotion sound like? Discuss the emotional aspects of toning sounds.</p>
Principles & Rules		<p>6. Learners will be able to analyze a preliminary voice print according to a handout entitled <i>The Emotional Characteristics of the Notes</i>.</p>	<p>Principle-eg Organizational If (note) / Then (emotional correlates)</p>	<p>State the Principle: "If C#, then Low energy, Fear, and Attachment."</p>	<p>Have participants identify keynotes and their emotional correlates on the handout, Emotional Characteristics of the Notes. Then compare the emotional correlates with a high and low note from their voice prints.</p>
Procedures		<p>7. Hearing a keynote representing the lowest note on their voice print, learners will be able to tone a prescribed vowel sound for 5 minutes.</p>	<p>Demonstration, Organization, and Practice</p>	<p>Present each participant with a prescribed note. A PowerPoint slide outlines the toning session.</p>	<p>Have participants work with workshop assistant for personal attention, monitoring & feedback during their 5 minute prescribed toning sessions.</p>

Sequencing Objectives and Instructional Strategies Matrix					09-21-06
Based on Merrill's (1983) Component Display Theory as cited in Morrison et al. (2001, p. 103)					
Type of Content	Learner's Performance Objective		Example / Strategy	Two-Component Prescription	
	Recall	Application		Initial Presentation	Generative Strategy
		8. Given a second voice print, learners will be able to interpret it according to the Toning & Emotional Management Guide.	Organization, Elaboration, and Practice	Present participants with the Toning & Emotional Management Guide. Present participants with their second voice print.	Have participants identify the notes of the musical scale, toning sounds, and emotional correlates. Have participants compare their second and first voice prints.
				Elaborate on use of Toning & Emotional Management Guide for interpreting voice prints.	Have participants practice the interpretation of their own voice print. Ask questions: what vowel did you use to tone your low note? What vowel does the chart recommend for that note?
Inter-personal		9. Given a game activity, learners will be able to identify one of the benefits of toning according to information presented in the workshop.		Present information on the human voice, emotional management, and the benefits of toning.	Have each participant unscramble the information by arranging into a complete sentence.

Sequencing Objectives and Instructional Strategies Matrix					09-21-06
Based on Merrill's (1983) Component Display Theory as cited in Morrison et al. (2001, p. 103)					
Type of Content	Learner's Performance Objective		Example / Strategy	Two-Component Prescription	
	Recall	Application		Initial Presentation	Generative Strategy
				<p>Participants given 8 chunk puzzles. Have each participant choose any 3 of the 8 chunk puzzles.</p> <p>Instructor displays answers to the puzzles on a PowerPoint slide.</p> <p>Present one benefit of Toning on PowerPoint screen.</p>	<p>Have participants split into two groups and have each group unscramble the scrambled chunks of 2 of the 5 remaining chunk puzzles.</p> <p>Finally have the whole group do the final chunk puzzle together</p> <p>Allow participants to express their views in response to the benefits of toning.</p>
Attitudes	10. Given a survey about the workshop, learners will be able to indicate their level of appreciation for toning and its benefits.			Participants are given a four page survey.	Survey contains 1 open-ended question: How can we improve the quality of this workshop?

APPENDIX F

Message Design Plan*
9-25-06

Section	Objectives	Pre-Instructional Strategy					Explicit Signals	Visual Function
		Instructional Strategy	Function	Content Structure	Learner	Task Attributes		
Intro		<u>Expository Organizer:</u> Orientation to Workshop	To inform learner of what is expected	Dominant structure	Higher ability learning	Factual information		
	1. Given a game activity, learners will be able to recall facts and concepts of toning, based on information provided in the workshop.	<u>Pretest:</u> Word Game	Alert learner to what is expected	Loose structure	Higher ability learning	Familiar		
1	2. During a discussion, learners will be able to define toning, based on the definition provided in the workshop.	<u>Overview:</u> Of Learning Objectives	Prepare learners for the learning task	Little structure	Higher ability learning	Concepts		

* Message Design Plan is based on the Comprehensive Instructional Design Model, see Morrison et al. (2001)

Section	Objectives	Pre-Instructional Strategy					Explicit Signals	Visual Function
		Instructional Strategy	Function	Content Structure	Learner	Task Attributes		
2	3. Given an explanation about emotion, learners will be able to identify the <i>Cycle of Emotions</i> according to the information provided in the workshop.						Definition and Example	
	4. Given a video demonstration, learners will be able to apply a technique for toning according to the instructor's performance checklist.						Temporal Sequence: demonstration of toning technique	
	5. Given a question, learners will be able to discuss <i>toning sounds linked to emotions</i> , based on two images presented in the workshop.							<u>Visuals:</u> representative, interpretive, and transformative
3	6. Learners will be able to analyze a preliminary voice print according to a handout entitled <i>The Emotional Characteristics of the Notes</i> .							<u>Visuals:</u> Representative, interpretive

* Message Design Plan is based on the Comprehensive Instructional Design Model, see Morrison et al. (2001)

Section	Objectives	Pre-Instructional Strategy					Explicit Signals	Visual Function
		Instructional Strategy	Function	Content Structure	Learner	Task Attributes		
4	7. Hearing a keynote representing the lowest note on their voice print, learners will be able to tone a prescribed vowel sound for 5 minutes.						Temporal Sequence: procedural steps for toning exercise	
	8. Given a second voice print, learners will be able to interpret it according to the Toning & Emotional Management Guide.							Visuals: representative, interpretive
	9. Given a game activity, learners will be able to identify one of the benefits of toning according to information presented in the workshop.	Comparative Organizer: Summary of Objectives	compare new concepts of toning with what learner already knows	Dominant Structure Little Structure	Higher Ability Higher Ability	Factual Information Familiar		
5	10. Given a survey about the workshop, learners will be able to indicate their level of appreciation for toning and its benefits.							Typographical Signals: Layout – vertical & horizontal spacing

* Message Design Plan is based on the Comprehensive Instructional Design Model, see Morrison et al. (2001)

WORKSHOP SEQUENCE OF INSTRUCTION - 9-29-06

Matrix based on POSNER & STRIKE (1976) SEQUENCING SCHEMES

Workshop Section	Objectives	Instructional Event	Function	Sequencing Type
1 Workshop Orientation	1. Given a game activity, learners will be able to recall facts and concepts of toning, based on information provided in the workshop. <u>Criterion measure:</u> Each learner completes a Crossword Puzzle	<u>Expository Organizer:</u> Present Orientation to Workshop <u>1st Rotation Activity:</u> 1. Voice Prints & 2. Reading Material <u>Pretest Strategy</u> Crossword Puzzle	Inform learner what is expected To get learners attention – address WIIFM – “What’s in it for me” Alert learner to what is expected	<u>Learning-Related:</u> Interest – to heighten motivation <u>Learning-Related:</u> Identifiable prerequisite
2 Introduction to Toning	2. During a discussion, learners will be able to define toning, based on the definition provided in the workshop. <u>Criterion measure:</u> Learners jointly recount a short answer response to question: What is the definition of toning used in the context of this workshop?	<u>Overview:</u> Present learning objectives <u>Activity:</u> Toning Ice-Breaker Present Definition & Depictions of Toning Sounds Reflection Period	Prepare learners for the learning tasks Begin with most familiar or prior knowledge then progress to unfamiliar knowledge. Stimulate recall and enhance retention of knowledge	<u>Learning-Related:</u> Familiarity
3 Emotions & Toning	3. Given an explanation about emotion, learners will be able to identify the <i>Cycle of Emotions</i> according to the information provided in the workshop. <u>Criterion measure:</u> Learners jointly complete five fill-in-the-blank sentences with the appropriate emotion for the Cycle of Emotions	Present definition of Emotion Present explanation of two basic sensations: Pain & Pleasure Present Cycle of Emotions Present Psychosomatic Network	Present less difficult information before presenting more difficult	<u>Learning-Related:</u> Difficulty

Workshop Section	Objectives	Instructional Event	Function	Sequencing Type
	<p>4. Given a video demonstration, learners will be able to apply a technique for toning according to the instructor's performance checklist.</p> <p><u>Criterion measure:</u> According to instructor's performance checklist, learners demonstrate the following two tasks:</p> <ul style="list-style-type: none"> • Tone vowels a,e,i,o,u • Demonstrate associated hand signs 	<p><u>Activity:</u> Learning Toning Technique</p> <p>Practicing Toning Technique</p>	<p>Get learners attention and build learner confidence via video demo followed by instructor's demonstration and guidance on the toning technique.</p> <p>Feedback – personal attention and guidance on correct performance</p>	<p><u>World - Related:</u> Temporal</p> <p>The Toning Technique is a sequential order of steps to facilitate learning and retention</p> <p><u>Learning-Related:</u> Interest</p>
	<p>5. Given a question, learners will be able to discuss <i>toning sounds linked to emotions</i>, based on two images presented in the workshop.</p> <p><u>Criterion measure:</u> Learners jointly respond to the following two discussion questions:</p> <ul style="list-style-type: none"> • What is your perception of the 1st image? • What is your perception of the 2nd image? 	<p>Present 1st Image & question followed by discussion</p> <p>Present 2nd image & question followed by discussion</p> <p>Reflection Period</p>	<p>Present simple concepts of emotion and toning then foster discussion on complex concepts of emotion and toning</p> <p>Stimulate recall and enhance retention of knowledge</p>	<p><u>Concept-Related:</u> Sophistication</p>
4 Emotional Characteristic of the Notes	<p>6. Learners will be able to analyze a preliminary voice print according to a handout entitled The Emotional Characteristics of the Notes.</p> <p><u>Criterion measure:</u> Using their own voice print, each learner compares a high and low note with its emotional correlates.</p>	<p><u>Activity:</u> Voice Print Analysis</p> <p>Present The Emotional Characteristics of the Notes</p>	<p>Ensure learner readiness for using the handout – The Emotional Characteristics of the Notes – by teaching learners to recognize the elements in the voice print before teaching them how to analyze voice prints using the handout.</p>	<p><u>Learning-Related:</u> Development</p>

Workshop Section	Objectives	Instructional Event	Function	Sequencing Type
	<p>7. Hearing a keynote representing the lowest note on their voice print, learners will be able to tone a prescribed vowel sound for 5 minutes.</p> <p><u>Criterion measure:</u> According to instructor's performance checklist, learners demonstrate the following two tasks:</p> <ul style="list-style-type: none"> • Tone prescribed vowel sound • Sustain keynote for 5 minutes 	<p><u>2nd Rotation Activity:</u> Toning Prescription</p> <p>&</p> <p>Voice Print</p> <p>&</p> <p>Reading Material</p>	<p>Gain learners interests via prescribed and guided toning:</p> <ol style="list-style-type: none"> 1. Posture 2. Breath 3. Prescribed Vowel given 4. Identify Tone using tuning device 5. Tone prescribed vowel 6. Timed for 5 min. 7. monitored by assistant <p>Ensure learner readiness for Chunk Puzzle Assessment</p>	<p><u>World - Related:</u> Temporal</p> <p>This toning exercise is organized in orderly sequence of steps to facilitate learning and retention</p> <p><u>Learning-Related:</u> Development</p>
5 Emotional Management	<p>8. Given a second voice print, learners will be able to interpret it according to the Toning & Emotional Management Guide.</p> <p><u>Criterion measure:</u> Using the Toning & Emotional Management Guide, each learner locates the vowel that corresponds to the keynote on their 2nd voice print.</p>	<p>Present Toning & Emotional Management Guide</p> <p><u>Activity:</u> 2nd Voice Print Interpretation</p>	<p>Ensure learner readiness for using the Toning & Emotional Management Guide to interpret voice prints by defining aspects of the TEM Guide before teaching learners how to use for interpretation.</p>	<p><u>Learning-Related:</u> Development</p>
	<p>9. Given a game activity, learners will be able to identify one of the benefits of toning according to information presented in the workshop.</p> <p><u>Criterion measure:</u> Each learner rearranges the chunks of a sentence about the benefit of toning into a grammatically complete sentence.</p>	<p><u>Activity:</u> Chunk Puzzle Game</p> <p><u>Comparative Organizer:</u> Present Summary of Objectives</p>	<p>To reinforce connections between toning concepts learned earlier in the workshop with toning concepts learned later in the workshop</p> <p>Enhance retention and transfer by reminding learners about the benefits of toning and encouraging them to tone in their daily lives</p>	<p><u>Learning-Related:</u> Interest – to heighten motivation</p>

Workshop Section	Objectives	Instructional Event	Function	Sequencing Type
<p>6</p> <p>Workshop Evaluation</p>	<p>10. Given a survey about the workshop, learners will be able to indicate their level of appreciation for toning and its benefits.</p> <p><u>Criterion measure:</u> Learners complete an Evaluation Survey.</p>	<p><u>Evaluation Activity:</u></p> <p>Present Survey</p>	<p>To assess learners attitudes about toning and the overall workshop</p>	

APPENDIX G



Administrative/Instructor's Guide

Workshop Designed by: Andreini Husbands – 2006

TONING:
An Emotional Management
Workshop

Administrative/Instructor's Guide

This guide includes an introduction, instructor's presentation, handouts, and a preparation check list of necessary materials and equipment to guide the instruction for this workshop.

GETTING STARTED

TONING: An Emotional Management Workshop

Pre-Workshop Planning

- Prepare before you begin – To ensure the success of your instruction, thoroughly read this guide and study all the course materials on the CD that accompanied it. For a list of contents on the CD see page 7.
- Secure assistance – to give individualized attention to participants, this workshop requires that you have assistance in monitoring and taking participant's voice prints*. Ideally, there should be at least one assistant for every four participants.
- Arrange for large room – preferably a dance studio with full length body mirrors. Ensure that the room is suitable for a workshop (uncluttered) and has a capacity for at least 10 – 12 people to move about freely.

- Ensure the room is equipped with:
 - hook-up capabilities for a projector, screen, speakers and remote for the PowerPoint presentation
 - hook-up capabilities for computer: PC/MAC for the PowerPoint presentation
 - 2 tables each large enough to accommodate 5-6 participants comfortably
 - chairs for 10 -14 people (participants, instructor and assistant)

- Arrange for small rooms or spaces – one for taking voice print assessments and one for instructor to work one-on-one with participants.
- Ensure small room or space has:
 - table and chairs
 - hook-up capabilities for computer laptop w/voice analysis software installed

***Please Note:**

It takes 5 minutes to take a voice print. Twenty minutes has been set aside for participants to rotate through their voice print sessions. One assistant should be able to take 4 voice prints in 20 minutes. For example, if there are 12 participants, then three assistants and three computers with VoiceBio equipment would be needed to take 12 voice prints in 20 minutes.

One Week Prior to Workshop

- Have your own voice print taken to familiarize yourself with the process (See CD for VoiceBio instructions, Voice Print Questions to ask Participants, and Sample of Ideal Voice Print).
- Rehearse the presentation to get a sense for the pacing of the activities and length of the instruction (See Instructor's Script in the third section of this guide on page 21).

Preliminary Information One Week Prior to Workshop

- It is helpful to provide participants with basic information about the workshop before the actual day it begins. It is recommended that you send participants the workshop guidelines and agenda in advance (See Workshop Guidelines and Agenda Included on CD). Participants can begin to orient themselves towards the activities and what they can expect.

**Set-Up for
Workshop**

- Make sure computers, projector, printer, VoiceBio and musical tuning device are in working condition.
- View the "17_TEM Wkshp Pres.ppt" file. Ensure all slides correlate with the Instructor Script.
- There are two handouts for the workshop:
 - 1) Emotional Characteristics of the Notes (see page 54)
 - 2) Toning and Emotional Management Guide (see page 55)
- List of items to bring for workshop:
 - portable printer for printing voice prints
 - VoiceBio equipment: 1 microphone, 1 vibe box, and 1 USB adapter
 - 1 musical (KORG) tuning device (see CD)
 - numbered name tags
 - pencils
 - note pads
 - bottled water available for participants

**During
Workshop**

- Use the Instructor Script located in the third section of this manual, it will guide you through the instructional steps in detail. The following is only an outline of the instruction at a glance.

**Workshop Instruction
At-A-Glance**

1. Welcome remarks and orientation to workshop.
2. Distribute numbered name tags and consent waivers for voice prints.
3. Conduct the 1st voice print session involving two tasks in which participants get voice prints taken and complete a self-paced reading unit that includes a word-game activity.
4. Give overview of learning objectives; use PowerPoint presentation.
5. Conduct Toning Ice Breaker Activity and a review of the first word-game activity.
6. Give a lecture about Toning and The Cycle of Emotion; use PowerPoint presentation.
7. View video demonstration of a Toning Technique, then, conduct a learning, practice and feedback session for participants to apply the toning technique.
8. Facilitate a voice exploration exercise to help participants see the relationship between toning and emotions.
9. Lead a discussion for analyzing participants' first voice print using the handout, The Emotional Characteristics of the Notes.
10. Conduct the second voice print session involving three tasks in which participants, tone for 5 minutes, have their voice prints taken, and complete a self-paced reading unit and a word-game activity.
11. Lead a discussion for interpretation of participants' second voice print and the handout, Toning & Emotional Management Guide.
12. Give a review of the second word-game activity that highlights the benefits of Toning; use PowerPoint presentation.
13. Give summary of learning objectives; use PowerPoint presentation.

On Completion of Instruction

- Encourage participants to continue practicing what was learned in the workshop.
- Address where participants may find more information about Toning (See CD to print list of Toning websites and books for participants)
- Have each participant complete a workshop evaluation survey (See Workshop Evaluation Survey on CD).

**List of Contents
on CD**

- Administrative/Instructor Guide
- Two Handouts
- PowerPoint Presentation
- Workshop Guidelines and Agenda
- Crossword Puzzle & Answers
- Chunk Puzzle & Answers

TONING:
An Emotional Management
Workshop

Workshop Overview

This workshop overview will assist you in creating a mind-set for the participants to receive new information and help clarify what they can expect to get out of the instruction.

Workshop Overview

Goal of the Workshop

After completing this workshop, learners will be able to apply a Vocal Toning Technique to facilitate the management of their own emotions and to recognize the benefits of toning.

Target Audience

Though this workshop is designed primarily for yoga instructors and prospective yoga students, those interested in the Healing Arts, such as, sound or music therapy will find it complementary and relevant to their field.

Qualities of a Good Instructor/Facilitator

The Instructor should have relevant knowledge about toning and have a good level of comfort with demonstrating toning techniques. Though formal musical or voice training and yoga teaching or experience is advantageous, it is not necessary at this level of the workshop. In addition, formal training is no guarantee of good facilitation skills. The following are qualities of a good instructor:

- Good listening skills
- Good presenting skills
- Confidence through upright posture
- Ability to create an atmosphere of safety and trust
- Respect for the opinion of others (not imposing ideas)
- Strive to embrace diversity and be sensitive to peoples needs and/or limitations
- Flexibility in changing methods and sequences of instructional activities as needed
- Organization of time schedule, equipment, and supplies.

Reference to Workshop

This workshop is based on Darryl L. Sink's & Associates' (2001), *Course Developer Workshop* which includes the three elements of effective instruction: introduction, teaching/learning activities, and practice and feedback. The instruction covers key topics: *Introduction to Toning, The Cycle of Emotions, and The Emotional Characteristics of Tones, Toning & Emotional Management, and Vocal Profiling.*

Reference to Workshop Activities

The workshop activities encompass techniques from several renowned experts such as toning pioneer, Laurel Keyes; psychiatrist in the field of mind-body medicine, David Viscott; sound therapists in the field of vibrational medicine, John Beaulieu and Jonathan Goldman; internationally renowned emotional yoga instructor, Bija Bennett; and lastly, Vocal Profiling experts, Kae Thompson-Liu and Sharry Edwards.

Workshop Schedule

Overall, the schedule of the workshop is planned for 4 hours. There should be ample time during the presentation for teaching/learning activities, practice and feedback, questions and discussion, and time for conducting a brief evaluation upon completion of the workshop. Two short breaks have been allotted in the workshop (See Instructor's Script) but more can be inserted between activities as needed. The schedule can be modified for those who have more or less time available, although it is recommended that you do not alter the sequence of activities. Detailed explanations to participants about Vocal Profiling as a diagnostic tool are beyond the scope of this course.

Workshop Objectives

Below are the instructional objectives for this workshop.

1. Given a game activity, learners will be able to recall facts and concepts of toning, based on information provided in the workshop.
 - Criterion measure:
Learners complete a Crossword Puzzle

2. During a discussion, learners will be able to define toning, based on the definition provided in the workshop.
 - Criterion measure:
Learners give a short answer response to the following question: What is the definition of toning used in the context of this workshop?

3. Given an explanation about emotion, learners will be able to identify the *Cycle of Emotions* according to the information provided in the workshop.
 - Criterion measure:
Learners complete five fill-in-the-blank sentences with the appropriate emotion for the Cycle of Emotions

4. Given a video demonstration, learners will be able to apply a technique for toning according to the instructor's performance checklist.
 - Criterion measure:
According to instructor's performance checklist, learners demonstrate the following two tasks:
 - Tone vowels (a, e, i, o, u) one time ascending the chromatic scale
 - Demonstrate hand signs one time without error

5. Given a question, learners will be able to discuss toning sounds linked to emotions, based on two images presented in the workshop.
 - Criterion measure:
Learners respond to the following two discussion questions:
 - What is your perception of the 1st image? What about the 2nd image?

6. Learners will be able to analyze a voice print according to a handout entitled The Emotional Characteristics of the Notes.
 - Criterion measure:
Using their own voice print, learners compare a high and low note with its emotional correlates.

7. Hearing a keynote representing the lowest note on their voice print, learners will be able to tone a prescribed vowel sound for 5 minutes.
 - Criterion measure:
According to instructor's performance checklist, learners demonstrate the following two tasks:
 - Tone prescribed vowel sound using correct shape of mouth
 - Sustain note for 5 minutes

8. Given a second voice print, learners will be able to interpret it according to the Toning & Emotional Management Guide.
 - Criterion measure:
Using the Toning & Emotional Management Guide, learners locate the vowel that corresponds to the keynote on the 2nd voice print.

9. Given a game activity, learners will be able to identify one of the benefits of toning according to information presented in the workshop.
 - Criterion measure:
Learners rearrange the chunks of a sentence about the benefit of toning into a grammatically complete sentence.

10. Given a survey about the workshop, learners will be able to indicate their level of appreciation for toning and its benefits.
 - Criterion measure:
Learners complete an Evaluation Survey.

Instructional strategy

The primary instructional strategy used in this workshop is the combination of interactive lecture presentation, small group activities and self-paced instruction.

Active Lecture Presentation

Throughout the instruction, the interactive lecture presentation is used to engage participants while giving important information [1]. Additionally, embedded in the instructor's guide are questions for discussion to help participants interact with the instructor and engage their thinking.

For example: The definitions for Toning and the Cycle of Emotions (Objectives 2 & 3) are contained in the PowerPoint slides #7 and #11 respectively. The instructor gives an example of toning and then asks participants to give examples or experiences with toning. For the Cycle of Emotions, participants are asked to complete sentences about the cycle presented on a PowerPoint display screen followed by the instructor facilitating a discussion on the topic.

Small Group Activities

Small group activities designed into the instruction promote active learning and provide peer teaching and learning experiences for participants. Moreover, the participants gain experience in listening to others as well as engendering oral expression [1]. For example, objective #5 ask participants to discuss toning sounds linked to emotions based on two images contained in PowerPoint slides #14 and #15. For each image, participants are asked, What might this visual emotion sound like? Using toning sounds, participants are asked to express their perception of the visual emotion.

Self-Paced Instruction

Self-paced activities and materials were developed to address objectives #1 and #9 and help foster an environment for participants to engage in active learning and receive immediate feedback. For example, to reinforce participants' learning after information has been presented; self-paced word-game activities are presented to stimulate active processing of the information and allow for self-check opportunities.

Instructional Strategy References:

1. Morrison, G. R, Ross S. M., & Kemp, J. E. (2001) Designing Effective instruction (3rd ed.) New York, NY: John Wiley & Sons, Inc.

Sequence of Instruction

The sequence of instruction is based on Posner & Strike (1976) sequencing schemes. The following table illustrates the matrix used for the workshop instruction.

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WORKSHOP SEQUENCE OF INSTRUCTION - 9-29-06
 Matrix based on POSNER & STRIKE (1976) SEQUENCING SCHEMES

Workshop Section	Objectives	Instructional Event	Function	Sequencing Type
1 Workshop Orientation	1. Given a game activity, learners will be able to recall facts and concepts of toning, based on information provided in the workshop. <u>Criterion measure:</u> Each learner completes a Crossword Puzzle	<u>Expository Organizer:</u> Present Orientation to Workshop <u>1st Rotation Activity:</u> 1. Voice Prints & 2. Reading Material <u>Pretest Strategy:</u> Crossword Puzzle	Inform learner what is expected To get learners attention – address WIIFM – "What's in it for me" Alert learner to what is expected	<u>Learning-Related:</u> Interest – to heighten motivation <u>Learning-Related:</u> Identifiable prerequisite
2 Introduction to Toning	2. During a discussion, learners will be able to define toning, based on the definition provided in the workshop. <u>Criterion measure:</u> Learners jointly recount a short answer response to question: What is the definition of toning used in the context of this workshop?	<u>Overview:</u> Present learning objectives <u>Activity:</u> Toning Ice-Breaker Present Definition & Depictions of Toning Sounds Reflection Period	Prepare learners for the learning tasks Begin with most familiar or prior knowledge then progress to unfamiliar knowledge. Stimulate recall and enhance retention of knowledge	<u>Learning-Related:</u> Familiarity
3 Emotions & Toning	3. Given an explanation about emotion, learners will be able to identify the <i>Cycle of Emotions</i> according to the information provided in the workshop. <u>Criterion measure:</u> Learners jointly complete five fill-in-the-blank sentences with the appropriate emotion for the Cycle of Emotions	Present definition of Emotion Present explanation of two basic sensations: Pain & Pleasure Present Cycle of Emotions Present Psychosomatic Network	Present less difficult information before presenting more difficult	<u>Learning-Related:</u> Difficulty

1

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Workshop Section	Objectives	Instructional Event	Function	Sequencing Type
	<p>4. Given a video demonstration, learners will be able to apply a technique for toning according to the instructor's performance checklist.</p> <p><u>Criterion measure:</u> According to instructor's performance checklist, learners demonstrate the following two tasks:</p> <ul style="list-style-type: none"> • Tone vowels a,e,i,o,u • Demonstrate associated hand signs 	<p><u>Activity:</u> Learning Toning Technique</p> <p>Practicing Toning Technique</p>	<p>Get learners attention and build learner confidence via video demo followed by instructor's demonstration and guidance on the toning technique.</p> <p>Feedback – personal attention and guidance on correct performance</p>	<p><u>World - Related:</u> Temporal</p> <p>The Toning Technique is a sequential order of steps to facilitate learning and retention</p> <p><u>Learning-Related:</u> Interest</p>
	<p>5. Given a question, learners will be able to discuss toning sounds linked to emotions, based on two images presented in the workshop.</p> <p><u>Criterion measure:</u> Learners jointly respond to the following two discussion questions:</p> <ul style="list-style-type: none"> • What is your perception of the 1st image? • What is your perception of the 2nd image? 	<p>Present 1st Image & question followed by discussion</p> <p>Present 2nd image & question followed by discussion</p> <p>Reflection Period</p>	<p>Present simple concepts of emotion and toning then foster discussion on complex concepts of emotion and toning</p> <p>Stimulate recall and enhance retention of knowledge</p>	<p><u>Concept-Related:</u> Sophistication</p>
4 Emotional Characteristic of the Notes	<p>6. Learners will be able to analyze a preliminary voice print according to a handout entitled The Emotional Characteristics of the Notes.</p> <p><u>Criterion measure:</u> Using their own voice print, each learner compares a high and low note with its emotional correlates.</p>	<p><u>Activity:</u> Voice Print Analysis</p> <p>Present The Emotional Characteristics of the Notes</p>	<p>Ensure learner readiness for using the handout – The Emotional Characteristics of the Notes – by teaching learners to recognize the elements in the voice print before teaching them how to analyze voice prints using the handout.</p>	<p><u>Learning-Related:</u> Development</p>

2

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Workshop Section	Objectives	Instructional Event	Function	Sequencing Type
	<p>7. Hearing a keynote representing the lowest note on their voice print, learners will be able to tone a prescribed vowel sound for 5 minutes.</p> <p><u>Criterion measure:</u> According to instructor's performance checklist, learners demonstrate the following two tasks:</p> <ul style="list-style-type: none"> • Tone prescribed vowel sound • Sustain keynote for 5 minutes 	<p><u>2nd Rotation Activity:</u> Toning Prescription</p> <p>&</p> <p>Voice Print</p> <p>&</p> <p>Reading Material</p>	<p>Gain learners interests via prescribed and guided toning:</p> <ol style="list-style-type: none"> 1. Posture 2. Breath 3. Prescribed Vowel given 4. Identify Tone using tuning device 5. Tone prescribed vowel 6. Timed for 5 min. 7. monitored by assistant <p>Ensure learner readiness for Chunk Puzzle Assessment</p>	<p><u>World - Related:</u> Temporal</p> <p>This toning exercise is organized in orderly sequence of steps to facilitate learning and retention</p> <p><u>Learning-Related:</u> Development</p>
5 Emotional Management	<p>8. Given a second voice print, learners will be able to interpret it according to the Toning & Emotional Management Guide.</p> <p><u>Criterion measure:</u> Using the Toning & Emotional Management Guide, each learner locates the vowel that corresponds to the keynote on their 2nd voice print.</p>	<p>Present Toning & Emotional Management Guide</p> <p><u>Activity:</u> 2nd Voice Print Interpretation</p>	<p>Ensure learner readiness for using the Toning & Emotional Management Guide to interpret voice prints by defining aspects of the TEM Guide before teaching learners how to use for interpretation.</p>	<p><u>Learning-Related:</u> Development</p>
	<p>9. Given a game activity, learners will be able to identify one of the benefits of toning according to information presented in the workshop.</p> <p><u>Criterion measure:</u> Each learner rearranges the chunks of a sentence about the benefit of toning into a grammatically complete sentence.</p>	<p><u>Activity:</u> Chunk Puzzle Game</p> <p><u>Comparative Organizer:</u> Present Summary of Objectives</p>	<p>To reinforce connections between toning concepts learned earlier in the workshop with toning concepts learned later in the workshop</p> <p>Enhance retention and transfer by reminding learners about the benefits of toning and encouraging them to tone in their daily lives</p>	<p><u>Learning-Related:</u> Interest – to heighten motivation</p>

3

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Workshop Section	Objectives	Instructional Event	Function	Sequencing Type
<p>6</p> <p>Workshop Evaluation</p>	<p>10. Given a survey about the workshop, learners will be able to indicate their level of appreciation for toning and its benefits.</p> <p><u>Criterion measure:</u> Learners complete an Evaluation Survey.</p>	<p><u>Evaluation Activity:</u></p> <p>Present Survey</p>	<p>To assess learners attitudes about toning and the overall workshop</p>	

4

Instructor Script

Workshop Orientation – Section 1

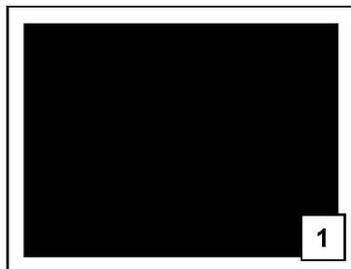
(The left column outlines the action "What to do". The right column gives guidance on "What to say".)

Action – You Do

Welcome participants to the workshop.
Introduce yourself.

Get participants' attention – address
WIFM "what's in it for me?"

Display slide 1.



Script – You Say

- Welcome everyone to the Toning for Emotional Management workshop.
- My name, background, experience, interest, and philosophy of life . . .
- In this workshop you will find out how to tune up your emotional body through the transformative power of your voice. What if I told you that based on your voice . . . we can tell what emotionally ails you without knowing about you emotionally before hand. Would you be interested? Please stay tune and enjoy your journey with us today.
- This workshop is approx. 4 hours long and the instruction is divided into five sections. Common to each section is a topic presentation, related activities and a discussion or reflection period at the end.

Explain Vocal Profiling and voice prints.

Click once to display slide 2.



- **Vocal Profiling and Voice Prints** - In this workshop we will be using an emerging biofeedback technology called Vocal Profiling. In lieu of the fact that it is a relatively young field we will be using it for educational research purposes only.

Give background on the voice print.

- So, what is Vocal Profiling?

- So how is it used?

Tie information about vocal profiling with prior knowledge.

Distribute **numbered** name tags and VoiceBio Informed Consent forms (see CD) to participants.

Have participants write their names on their name tags.

- What is BioAcoustics Vocal Profiling?

- _____

- Now that you've got a little background on Vocal Profiling, it is time to get a voiceprint assessment from each of you to use later in the workshop.

- Please write your name that you want us to call you. Look at the number on your name tag; that is the order in the lineup for you to have your voice print taken.

Explain how voice prints will be taken.

- We have set up a station in another room for voice prints to be taken. Getting a voice print takes approx. 5 minutes.
- In regards to taking your voice print, essentially you will speak into a microphone while responding to 3 questions. Our workshop assistant will guide you through the process.
- The frequencies of your voice will be detected and recorded using VoiceBio, voice analysis software, developed by Naturopath, Kae Thompson-Liu (2002). We will use your voice prints in two of the activities in this workshop.

Give participants 5 min. to read and sign VoiceBio Informed Consent forms for having their voice prints taken.

- Please take a few minutes to read and sign the consent waiver for having your voice print taken.

Explain the logistics of how participants will be engaged for a 20 min. time period.

- When you are not getting a voice print, you will be engaged in a word-game activity based on information provided. This is an individual activity to be completed on your own.

For Activities – 1 & 2

1. Distribute reading material and game activity (crossword puzzle) to participants.
2. Send the first participant out of the room to get a voice print. When participant #1 has returned, send participant #2, and so on until all participants have received a vocal profiling session.
3. When all voice prints have been taken, print 1 voice print for each participant. Distribute each participant's voice print at the beginning of Section 4 (Emotional Characteristics of the Notes) of the workshop

Click once to display slide 3.

- Complete the activity at the end of the reading unit to the best of your ability. We will review it later in the workshop.
- This entire voice print session process will take approximately 20 minutes.
- Are there any questions?

Instructor Script

Introduction to Toning - Section 2

Action – You Do

Script – You Say



- Now it's time to turn our attention to the main topic of our workshop, *Toning for Emotional Management*.

Give an overview of objectives in the workshop.

- This workshop consists of various activities to introduce you to the art of toning, its benefits, and its role in managing emotion. You will:



- Recall facts and concepts of toning
- Define toning
- Identify the Cycle of Emotions
- Apply a Toning Technique
- Discuss toning sounds linked to emotions
- Analyze voice prints with emotional correlates
- Tone a prescribed vowel sound for 5 minutes
- Interpret your own voice print
- Identify one of the benefits of toning

Tell participants to stand for a toning ice-breaker activity

Activity – 3

Click once to display slide 5.



- Please stand for our toning ice-breaker activity.

- We will begin this activity using our first names. Using the pitch of your speaking voice, 1) state your first name; 2) tone the syllables of your first name holding each syllable for 4 counts and 3) tone the syllables in your first name with the rest of the class.

Demonstrate the activity first.

Then:

- Have each participant introduce themselves by stating their own name followed by toning the syllables in their name. Then, everyone tone the syllables with the owner of the name.
- If most participants have simple one syllable names, ask participants to use their given birth names (if applicable), such as Thomas for Tom, or Deborah for Deb.
- And/or if time permits, provide a few multi-syllable names to tone for a fun challenge.
- Tell participants to return to their seats.

- I will demonstrate first.
 - My name is Paula.
 - Paw-aw-aw-aw-lah-ah-ah-ah.
 - Everyone tone it with me.
 - Paw-aw-aw-aw-lah-ah-ah-ah.

Click once to display slide 6.

Click 16 times to display each answer

Crossword Puzzle	
Review & Answers	
ACROSS	DOWN
1. PURIFICATION	2. CYMATICS
5. ELFS	3. RESONANCE
6. TRISMEGISTUS	4. VIBRATION
7. KYMA	8. CHANTING
11. SOUND	9. RHYTHM
12. HERTZ	10. MUSICAL
14. TONING	13. VOICE
15. ULTRASONIC	
16. KEYES	

6

- Let's take a look at the crossword activity that you worked on earlier.
- The purpose of this activity is to familiarize you with some of the history, and science, behind Toning and to serve as a review of the material.

Read answers to crossword puzzle. Leave answers displayed on screen if need be.

Answer briefly any questions or clarify topic issues participants may have about the reading material or crossword puzzle.

- Let's see how well you did. I will now give you the answers to the crossword puzzle.

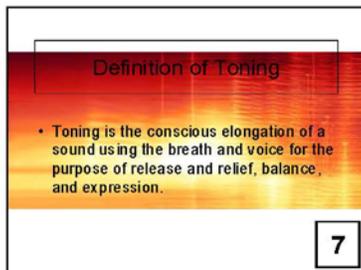
Ask participants what Toning is.

- So, what is *Toning*?

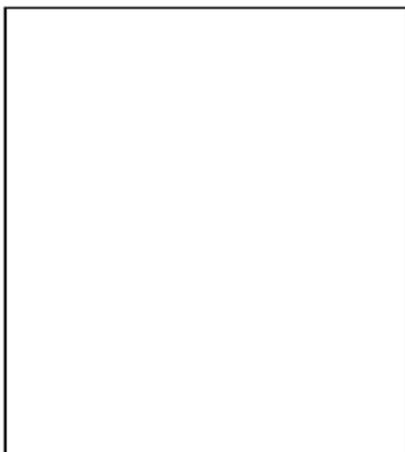
Pause for answer or comments from participants.

- Though there were many definitions stated in the material, this one has been chosen for the context of this workshop.

Click once to display slide 7.



- **Toning is the conscious elongation of a sound using the breath and voice for the purpose of release and relief, balance, and expression.**

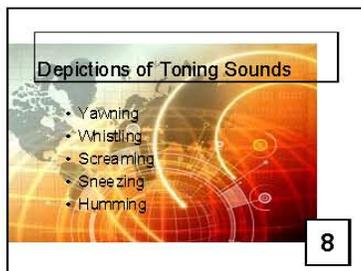


- The first step in learning to tone . . .

Click once to display slide 8.

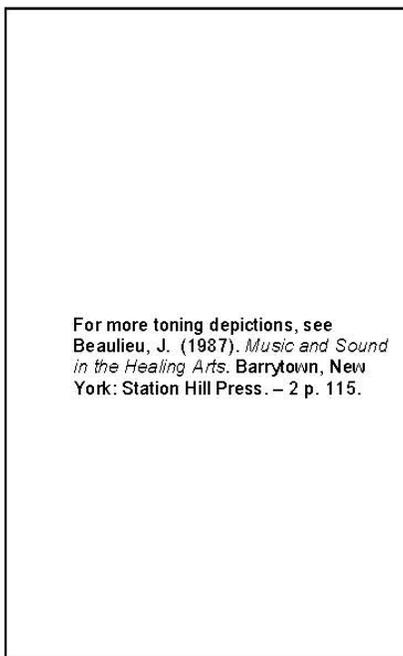
Pause for participant's response before clicking 5 times to display each toning depiction on slide (see below).

- Can you think of some others?



- _____

- _____



- _____

- _____

Notes:

See Beaulieu, J. (1987). *Music and Sound in the Healing Arts*. Barrytown, New York: Station Hill Press. p. 115.

- _____

- _____

- _____

- _____

- _____

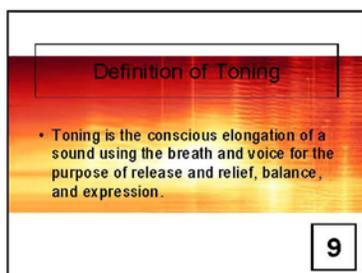
- _____

Reflection – Section 2

Display definition of toning again for review.

Click once to display slide 9.

- Let's reflect for a moment.
 - How did you feel toning your name?
 - Just for review, what is the definition of toning that was chosen for the context of this workshop?



Be sensitive to participants needs . . .
ask participants how they are feeling . . .

This may be a good time to request
participants take a 5 minute break if
the need arises.

- How is everyone doing so far?
- Perhaps we need a break . . . let's resume in 5 minutes.

BREAK – 5 min.

Click once to display slide 10.

Click 2 times to display each bulleted point

Emotions & Toning – Section 3

Action – You Do

Script – You Say

Emotion

- What is an emotion?
- An emotion is a thought linked to a sensation. --Deepak Chopra

10

- Now that you've been introduced to some fundamentals of toning, we will turn our attention to **Emotion**. **What is an emotion?**
- Deepak Chopra gives a succinct definition of an emotion. _____

- _____

Click once to display slide 11.

Cycle of Emotions

by David Viscott



- Pain in the present is experienced as hurt.
- Pain in the past is remembered as anger.
- Pain in the future is perceived as anxiety.
- Unexpressed anger, redirected against yourself and held within, is called guilt.
- The depletion of energy that occurs when anger is redirected inward creates depression.

11

- _____

See Chopra, D. (1993). *Ageless Body, Timeless Mind: A Quantum Alternative To Growing Old*. New York, NY: Harmony Books of Crown Publishers – 3a p. 185 and 3b p. 186.

- _____

- Here is the cycle of emotions.
- Can you fill in the blank for each sentence with the appropriate emotion?

For each sentence on the screen; click once.

Encourage participants to guess the appropriate emotion in red before you state it.

To complete each sentence, click once to display answer.

- _____

Psychosomatic Network



- Our bodies, minds, and emotions are inextricably intertwined.
- When emotions are acknowledged, understood, and expressed, they are as valuable as any healing intervention available.
- Feeling is a rare art. It must be practiced.

—Bija Datta

12

- _____

Click 3x to display on slide #12 the bulleted points about the psychosomatic network.

See Bennett, B. (2002). *Emotional Yoga*. New York, NY: Fireside of Simon & Schuster, Inc. – 4a p. 3 and 4b p.4.

- Psychosomatic means ...

-

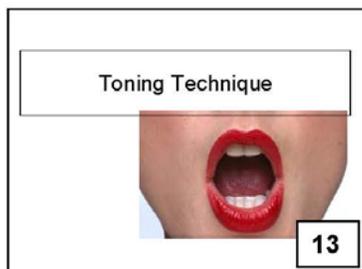
-

-

-

-

Click once to display slide 13.

Action – You Do

Click link on slide 13 to view video clip.

Activity – 4

After viewing the video, tell participants the next activity involves learning the toning technique that was demonstrated in the video.

Have participants stand in front of the mirror and observe you demonstrate for the first time, and then, have them follow along with you for the second time.

Use the (KORG) tuning device to get the appropriate pitch for the toning exercise. Begin on middle C moving up in three half-step intervals

Script – You Say

- At this time, we will view a brief video.
- The toning technique we are learning is demonstrated by a student of Professor Gemmell, at California State University, Chico.
- In this video hand signs developed by his contemporary colleague and master of Music Education, Jeff Johnson, have been incorporated. The hand signs assist symbolically in the shaping of the oral cavity, proper vowel production, and air placement.
- Ok everyone; let us now learn the toning technique as demonstrated on the video. I will tone first the vowels [a, e, i, o, u], and then you tone the vowels along with me.

Use the tuning device again to get the appropriate pitch for the toning exercise in a circle.

Begin on middle C moving up in half-step intervals until the octave above middle C is reached.

Have participants form groups of 2 to practice the toning technique.

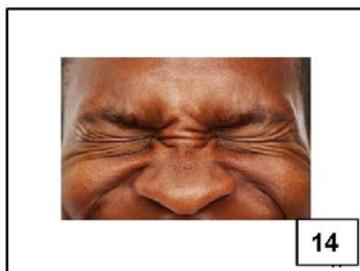
While participants practice, observe each participant to assess that they have met the 2 criteria on the performance checklist:

1. Tone vowels (a,e,i,o,u) one time ascending the chromatic scale
2. Demonstrate hand signs one time without error

- Now please tone with me.
- Let's repeat it a few times.
- Now, let's add the associated hand signs. Again, I will demonstrate first, and then you follow along with me afterward.
- Now, please do the hand signs with me.
- Again, let's repeat it a few times so we can get the hands coordinated with toning the vowels.
- Now we will do the exercise one last time, but this time let's stand in a circle facing each other.
- When you do this exercise, pay attention to how you resonate with the vowels, and how you are feeling.
- Please form groups of two. Take turns practicing the toning technique while the other looks on. I'll be around to provide assistance and check your performance of toning the vowels and doing the hand signs.

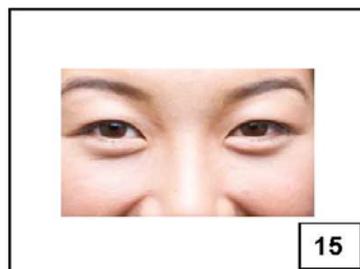
While still standing, have participants turn their attention to the image on the screen. Tell them the next exercise is about linking toning sounds to emotions.

Click once to display slide 14.



- Please turn your attention toward the screen.
- We are now going to explore the idea of linking toning sounds to your emotions.
- Can anyone demonstrate what this image might sound like?
- How would you express this emotion using the vowel sounds (a, e, i, o, u)?
- What is your perception of this image?

Click once to display slide 15.



- What might this image sound like? How would you express this emotion using the vowel sounds (a, e, i, o, u)?
- In reflection, this is an exercise to help you sharpen your skill in hearing and feeling subtler intentions in the human voice. With this skill you can facilitate deeper communication between yourself and others. How did toning the vowel sounds make you feel?

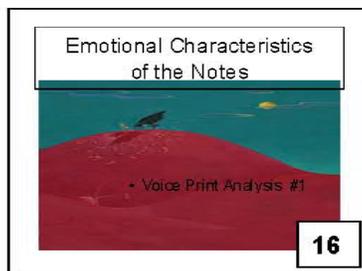
If participants appear to be struggling with responses to images above, provide an example or a demonstration. Make it fun and non-judgmental.

- Please return to your seats.

Click once to display slide 16.

Emotional Characteristics of the Notes – Section 4

Action – You Do



Distribute to each participant their 1st voice print and the handout, Emotional Characteristics of Notes.

Script – You Say

- Okay, you've explored the concept of emotional toning using your own voice. Now, to see how your emotional voice can be measured let's visit the voice prints that each of you took at the beginning of the workshop.

- When you were asked three questions for your voice print, we were gathering three different voice samples from you. The computer instantly sorted and graphed the frequency tones in your voice, ignoring word content. In other words, the process is not predicated on what you said, but how you said it.
- You have received two handouts. One is your voice print. The other, titled Emotional Characteristics of the Notes.

Direct participants in analyzing their voice prints.

Verify that each participant has identified the highest and lowest bar on their voice print.

Thompson-Liu, K. (2002). *VoiceBio Sound Therapy Course 1*. Hardy, VA: VIBEprints Corporation. – 5 p. 7

- First, look at your voice print. Each person's voice print is unique to them. Your emotional frequencies are displayed in the form of a bar graph. According to Vocal Profiling experts, Edwards and Thompson-Liu, there are 12 keynote frequencies in the body corresponding to the 12 notes of the chromatic musical scale.
- Recall that we toned each of these notes (from C to B) in an earlier exercise while performing hand signs.
- Please, find the bar with the highest percentage and the bar with the lowest percentage on your voice print.
- At the base of each of the bars, find its key note frequency. These two key notes are an indication that there is an emotional imbalance.
- What does this mean?

Notes:

See McCraty, R. & Childre, D. (2003). *The Appreciative Heart: The Psychophysiology of Positive Emotions and Optimal Functioning.* – 7 p.1-21.

- Let us turn to the Emotional Characteristics of the Notes for an explanation.
- The chart shows 12 musical key notes and the emotional characteristics associated with each. The emotional characteristics of each key note are divided into three color coded areas: Emotional Symptoms, Positive Thoughts /Actions and Goals (see legend).
- To help you use the chart to analyze the highest and lowest note on your voice print, first, identify the musical key note, second, carefully read the emotional symptoms, third, consult the positive thoughts and actions, and lastly, look at the virtuous goal (in blue).
- In short, positive behavioral and attitudinal actions (yellow) can help alleviate emotional symptoms moving you toward your virtuous goal (blue).

- _____

Notes:

See Edwards, S. (2005). Definitive Theory of Human BioAcoustic Vocal Profiling. *Journal of BioAcoustic Biology (JBAB)*, 5, 1-54.

See Perry, W. (1993). *Correlative Healing Chart for Sound Therapy*. Musikarma Productions, Los Angeles, Ca – 6 (see toning chart)

- Toning can help with emotional imbalances.

- _____

- _____

- _____

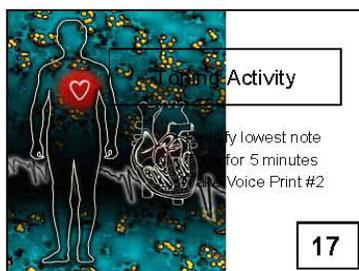
- _____

Tell participants to turn their attention to the display screen. Introduce the next two activities.

Activity – 5 & 6

Click once to display slide 17.

Click 3 times to display each bulleted point



- In our next activity, I will ask you one at a time to go to an area where you can't be heard. You will **tone the note associated with the lowest bar that you identified on your voice print.**
- If you have two bars with the same percentage, then you may want to choose based on the emotional characteristics associated with the key note frequency. In this case, consult the Emotional Characteristics of the Notes chart.
- Once you have identified the lowest bar and its key note. **You will tone this note for 5 minutes.** Then you will have **another voiceprint** taken immediately following your toning session so that we can see how your tone affected the graph of your voice print.

Distribute game activity (chunks puzzle).

Tell participants that they may choose any 3 of the 8 puzzles and that the remaining puzzles will be done as a group in the next section of the workshop.

While participants tone, instructor and/or workshop assistant observe each participant to assess that they have met the 2 criteria on the performance checklist:

1. Tone prescribed vowel sound using correct shape of mouth
2. Sustain note for 5 minutes

Send the first person out of the room to tone for 5 min.

- Ideally, it is best to tone for 45 minutes to see a significant change in the voice print graph. However, 5 minutes is all we have time for in this workshop and for the most part, it's a chance for you to experience the process.
- This toning activity will be carried out in a rotation sequence, the same way that we took your first voice prints at the beginning of the workshop. While one participant is toning and getting their voice print taken, the other participants will be engaged in a word-game activity.
- This word game consists of a series of eight puzzles. You may choose any 3 of the 8 puzzles to solve; your remaining 5 puzzles will be solved as a group in the next section of the workshop.
- When it's your turn to tone you will be assisted by a workshop assistant who will assign you a vowel sound and will be using a tuning device to help you sustain the tone of the vowel. You will also be monitored and timed for 5 minutes.

After each participant has toned for 5 minutes, have them go to the same location where they had their first voice print taken. Print and label each voice print # 2 or use different color paper or stickers to identify them (post or second voice prints) from the first voice prints.

Be sensitive to participants needs . . .
ask participants how they are feeling . . .

This may be a good time to tell
participants to take a 15 minute break.

- This concludes section 4. At this time we will take a break and resume back here in 15 minutes.

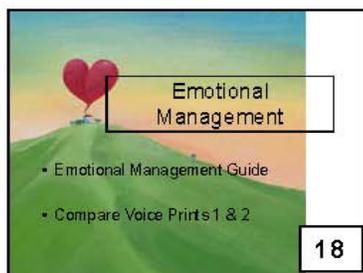
BREAK – 15 min.

Emotional Management – Section 5

Action – You Do

Distribute handouts to each participant, 1) an Emotional Management Guide and 2) their 2nd voice prints.

Click once to display slide 18.



Sound out for the participants the five toning sounds that was toned earlier that relate to the sounds in the Guide:

- **a** = (ay)
- **e** = (eee)
- **i** = (ah-eee)
- **o** = (oh)
- **u** = (ooo)

Script – You Say

- Welcome back! You have before you two handouts. One is an Emotional Management Guide; the other is your second voice print.

- First, let's look at the guide. It shows 12 key notes highlighted in blue. Each note has a corresponding toning sound highlighted in yellow which corresponds to their emotional correlates highlighted in purple.

- Notice that the toning sounds are vowels. Recall that we toned five of these toning sounds **a** (ay), **e** (eee), **i** (ah-eee), **o** (oh), **u** (ooo) in an earlier exercise.
- According to this guide, which is based on the research of sound therapist, Wayne Perry, specific pitches affect the emotions more effectively when using a specific vowel shape [B].

Allow responses from participants.
Encourage discussion . . .

McCraty, R. & Childre, D. (2003). *The Appreciative Heart: The Psychophysiology of Positive Emotions and Optimal Functioning*. – 7 p.1-21.

Perry, W. (1993). *Correlative Healing Chart for Sound Therapy*. Musikarma Productions, Los Angeles, Ca – 6(see chart)

- During your previous 5 minute toning activity, you not only toned a certain key note pitch according to the lowest bar on your voice print but you were also instructed to use a certain vowel sound.

- Now, look at your second voice print. Compare it to your first voiceprint. Was there a change in the low note on your second voice print from the one on the first voice print? Look at the guide again. What vowel corresponds to that key note?

- _____

- _____

Elaborate further, if time permits about vocal resonant frequencies entraining emotional frequencies. (See Edwards'(2005) research) but take note, detailed and lengthy discussion around Vocal Profiling is beyond the scope of this Introductory Toning course.

Have participants split into two groups and have each group choose 2 different puzzles from among the 5 puzzles left.

Get a quick show of hands – which puzzles were most worked on or solved with the reading unit exercise. Have the majority of participants work on those puzzles that have not been solved or completed.

Monitor 15 minute time period.

Finally have the whole group solve the final chunk puzzle together

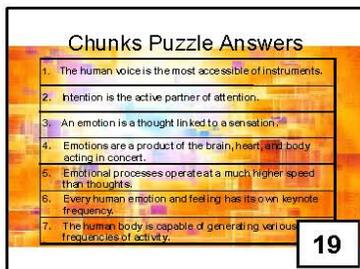
Monitor 10 minute time period.

- In the interest of time, we must now move on to our final activity of the workshop. Let's take a look at the chunks puzzle activity you worked on.
- You were asked to choose any 3 of the 8 puzzles to solve. Before we review them, we are going to solve the remaining 5 puzzles. To do this, we will split into two groups. Each group will consult and choose two different puzzles to solve.
- Some of you may find that 1 or both of the puzzles you chose as a group may have been one or two of the three you individually selected earlier. That's ok; you will be better prepared to help the others in your group solve the puzzles. Each group will have 15 minutes to solve both of their puzzles.
- O.K. times up! Now let's take 10 minutes to solve the final puzzle all together as one group.

Display answers to the chunks puzzles on the display screen.

Click once to display slide 19.

Click 7 times to show answers to puzzles #1-7



- Ok, times up! Let's see how well we did. The answers to all 8 chunks puzzles are as follows.

Discussion – Section 5

Before revealing the answer to question 8 of the chunk puzzle, ask participants the question (see at right)

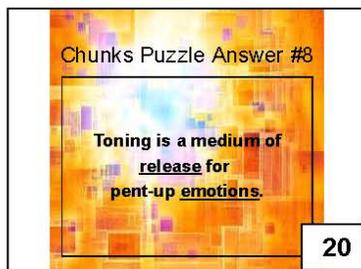
(Allow participants to express their views in response to the benefits of toning).

Ask participants the assessment question - objective # 9 (see at right).

- In terms of the Benefits of Toning, what does toning mean to you?
- To make sure we are clear at least about one toning benefit, can anyone complete this sentence about the Benefits of Toning as a means of self-expression.

Click once to display slide 20.

Click once to display the answer to puzzle #8



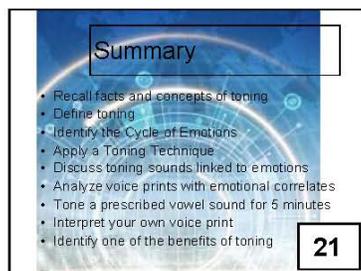
- Toning is a medium of _____ for pent-up _____.

Summary

Summarize objectives of the workshop for participants.

Click once to display slide 21.

Click 9 times to display each objective



- Let's recap what we've learned. The instructional objectives that guided this workshop gave you an opportunity to:
 - Recall facts and concepts of toning
 - Define toning
 - Identify the Cycle of Emotions
 - Apply a Toning Technique
 - Discuss toning sounds linked to emotions
 - Analyze voice prints with emotional correlates
 - Tone a prescribed vowel sound for 5 minutes
 - Interpret your own voice prints
 - Identify one of the benefits of toning.

Click once to display slide 22.



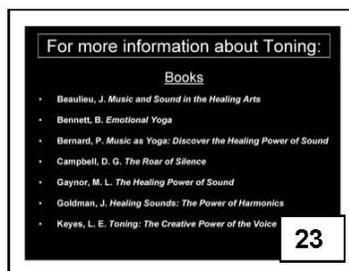
- If you are interested in finding out more about toning, I recommend you visit these websites and read these books (distribute list of toning references).

Workshop Evaluation – Section 6

Action – You Do

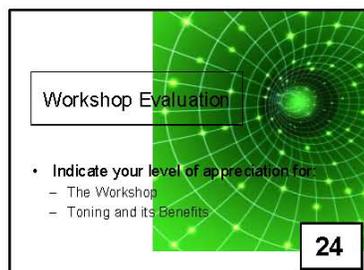
Script – You Say

Click once to display slide 23.



- This concludes the workshop. I hope you now have a better understanding about toning and how to use it to manage your emotions. I encourage you to tone daily and embrace the sound of your own voice that it may lead you to the emotional healing and balance you seek. Again, thank you for your attention and worthwhile contribution to this workshop.

Click once to display slide 23.



- In order to improve the workshop, we need feedback from you. We are requesting that each of you complete a survey.
- This survey is for you to indicate your level of appreciation for the workshop and for toning and its benefits.
- Thank you in advance for your valuable feedback.

Distribute surveys to participants.

REFERENCES – SECTIONS 1-5:**Section 1:**

1. Edwards, S. (2005). Definitive Theory of Human BioAcoustic Vocal Profiling. *Journal of BioAcoustic Biology (JBAB)*, 5, 1-54.

Section 2:

2. Beaulieu, J. (1987). *Music and Sound in the Healing Arts*. Barrytown, New York: Station Hill Press. – 2 p. 115.

Section 3:

3. Chopra, D. (1993). *Ageless Body, Timeless Mind: A Quantum Alternative To Growing Old*. New York, NY: Harmony Books of Crown Publishers – 3a p. 185 and 3b p. 186.
4. Bennett, B. (2002). *Emotional Yoga*. New York, NY: Fireside of Simon & Schuster, Inc. – 4a p. 3 and 4b p.4.

Section 4:

5. Thompson-Liu, K. (2002). *VoiceBio Sound Therapy Course 1*. Hardy, VA: VIBEprints Corporation. – 5 p. 7

Section 5:

6. Perry, W. (1993). *Correlative Healing Chart for Sound Therapy*. Musikarma Productions, Los Angeles, Ca – 6(see chart)
7. McCraty, R. & Childre, D. (2003). *The Appreciative Heart: The Pyschophysiology of Positive Emotions and Optimal Functioning*. – 7 p.1-21.

TONING:
An Emotional Management
Workshop

Handouts

There are two handouts for this workshop course:

- 1) Emotional Characteristics of the Notes – for best quality:
print on legal paper (see sample on page 54).
- 2) Toning & Emotional Management Guide – for best quality:
print on legal paper (see sample on page 55).

The Instructor Script will cue presenter when these items
are to be distributed in the workshop.

TONING & EMOTIONAL MANAGEMENT GUIDE										
	1	2	3	4	5	6	7			
Musical Note / Key:	C	C#	D	Eb	E	F	F#			
Toning Sound:	UH (Low)			OH			AH			
Emotional Correlates:	Self power issues Lies/ness Ability to self-direct Survival issues Repression Dependence Sexuality Groundedness	Secretly hard on self Sarcastic or bullying Indulgences Low energy Fear Groundedness Boundaries Attachment	Self-approval issues Complainer Sexuality issues Low self esteem Shyness Addictions Intimacy	Information brokers Don't share real emotions lightly Mental clarity Stubbornness Control issues Trust issues	Self sabotage Needs to be needed Lack of will power Disruption Slow learning Impractical	Procrastination Lack of compassion Trust issues Authenticity Intolerance Lack of forgiveness	Will work on things not important and leave Important issues undone Will turn off and vegitate Inflexibility Lack of responsiveness			
Musical Note / Key:	8	9	10	11	12					
Toning Sound:	AY		EEE		EEE (High)					
Emotional Correlates:	Prioritizing physical issues Depression Communication issues Creativity blockage Dishonesty	Spreads self too thin Sees self as not important Sways from low self-esteem to egotistical Lack of spontaneity	Prioritizing non-physical issues Creativity blockage Trust issues Lack of motivation Apathy	Others more important Gives too much Tries too hard to please Mental and nervous disorders Indecision	They deserve but don't know how to accomplish without appearing selfish Scattered attention					

This Toning and Emotional Management Guide is based on the Correlative Healing Chart for Sound Therapy by sound therapist, Wayne Perry (1993). His research suggests that specific pitches affect the emotions more effectively when using a specific vowel shape.

**TONING:
An Emotional Management
Workshop**

Display Screens



Workshop Orientation

- Vocal Profiling & Voice Prints
- VoiceBio Informed Consent

Toning for Emotional Management

Overview

- Recall facts and concepts of toning
- Define toning
- Identify the Cycle of Emotions
- Apply a Toning Technique
- Discuss toning sounds linked to emotions
- Analyze voice prints with emotional correlates
- Tone a prescribed vowel sound for 5 minutes
- Interpret your own voice print
- Identify one of the benefits of toning

Toning Ice-Breaker

1. State your name
2. Tone the syllables in your first name
3. Tone syllables in your name with the class

Crossword Puzzle Review & Answers

ACROSS		DOWN	
1	PURIFICATION	2	CYMATICS
5	ELFS	3	RESONANCE
6	TRISMEGISTUS	4	VIBRATION
7	KYMA	8	CHANTING
11	SOUND	9	RHYTHM
12	HERTZ	10	MUSICAL
14	TÖNING	13	VOICE
15	ULTRASONIC		
16	KEYES		

Definition of Toning

- Toning is the conscious elongation of a sound using the breath and voice for the purpose of release and relief, balance, and expression.

7 & 9

Depictions of Toning Sounds

- Yawning
- Whistling
- Screaming
- Sneezing
- Humming

8

Emotion

- What is an emotion?
- An emotion is a thought linked to a sensation. --Deepak Chopra

10

Cycle of Emotions
by David Viscott



- Pain in the present is experienced as hurt.
- Pain in the past is remembered as grief.
- Pain in the future is perceived as anxiety.
- Unexpressed anger, redirected against yourself and held within, is called guilt.
- The depletion of energy that occurs when anger is redirected inward creates depression.

11

Psychosomatic Network

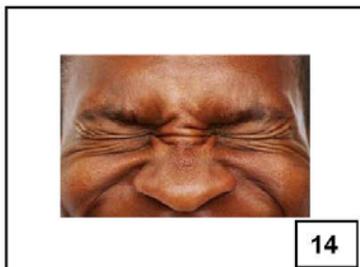
- Our bodies, minds, and emotions are intimately interlinked.
- When emotions are acknowledged, understood, and expressed, they are as valuable as any healing intervention available.
- Feeling is a rare art. It must be practiced. --Byo Ben

12

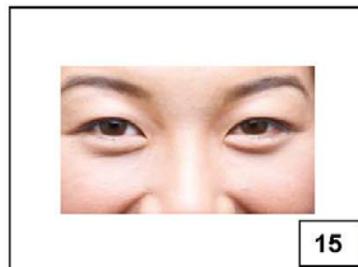
Toning Technique



13



14



15

Emotional Characteristics of the Notes

• Voice Print Analysis #1

16

Toning Activity

• Play lowest note for 5 minutes

• Voice Print #2

17

Emotional Management

• Emotional Management Guide

• Compare Voice Prints 1 & 2

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Chunks Puzzle Answers

1. The human voice is the most accessible of instruments.
2. Intention is the active partner of attention.
3. An emotion is a thought linked to a sensation.
4. Emotions are a product of the brain, heart, and body acting in concert.
5. Emotional processes operate at a much higher speed than thoughts.
6. Every human emotion and feeling has its own keynote frequency.
7. The human body is capable of generating various frequencies of activity.

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Chunks Puzzle Answer #8

**Toning is a medium of
release for
pent-up emotions.**

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Summary

- Recall facts and concepts of toning
- Define toning
- Identify the Cycle of Emotions
- Apply a Toning Technique
- Discuss toning sounds linked to emotions
- Analyze voice prints with emotional correlates
- Tone a prescribed vowel sound for 5 minutes
- Interpret your own voice print
- Identify one of the benefits of toning

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For more information about Toning:

Websites

- Edwards,
www.vocalprofiling.com
- Lyle,
<http://www.vocalyoga.com>
- Thompson,
<http://www.neuroacoustic.com/biotuning.html>
- Thompson-Lui,
<http://www.voicebio.com/index.php>

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For more information about Toning:

Books

Beaulieu, J. *Music and Sound in the Healing Arts*
Bennett, B. *Emotional Yoga*
Bernard, P. *Music as Yoga: Discover the Healing Power of Sound*
Campbell, D. G. *The Roar of Silence*
Gaynor, M. L. *The Healing Power of Sound*
Goldman, J. *Healing Sounds: The Power of Harmonics*
Keyes, L. E. *Toning: The Creative Power of the Voice*

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Workshop Evaluation

- Indicate your level of appreciation for:
 - The Workshop
 - Toning and its Benefits

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Note:
*Slides 7 & 9 are the same and
are used in different places in
the presentation.*

**TONING:
An Emotional Management
Workshop**

**Instructor
Reference Tools**

PROJECT GUIDELINES

Day of Workshop

1. Location: _____

For directions or information about the workshop:

Phone: _____ Email: _____

Time: _____

PLEASE BE PROMPT – The workshop is 4 hours in length, and its activities are structured within time limits.

2. Voice Print – Pre & Post assessments

- A voice print will be taken at the beginning of the workshop and toward the end of the workshop. Under supervision, you will be asked three questions. You will respond to the questions by speaking into a microphone that will be hooked-up to a computer and specialized equipment. The sound of your voice will be deciphered and then plotted on a computer-generated graph or "voice print" that matches pitches in a musical scale. These voice prints will be used in the workshop.
- PREPARATIONS – Please do not eat at least 1 hour prior to the workshop. In addition, a voice print cannot be done after someone has smoked, had gum, tea, or coffee. All these things as well as having food on your stomach while recording a voice print will contaminate the data of your voice print. Your cooperation is highly appreciated. There will be snacks available during the workshop breaks.

3. For Workshop Activities - wear comfortable clothing

WORKSHOP AGENDA*

Section 1 – Workshop Orientation

- Overview
- Vocal Profiling & The Voice Print

Section 2 – Introduction to Toning

- What is Toning?
- Toning Ice Breaker

Section 3 – Emotions & Toning

- The Cycle of Emotion
- Toning Technique

Section 4 – The Emotional Characteristics of the Notes

- Analyzing Your Voice Print
- Your Prescribed Toning Activity

Section 5 – Emotional Management

- Interpreting Your Voice Print
- The Benefits of Toning

Section 6 – Workshop Evaluation

- 5 minute Evaluation Survey – immediately following workshop

* This agenda is only an outline of some topics you can expect. For more details contact: _____.

Informed Consent and Release VoiceBio Sound Therapy Evaluation

(YOUR NAME/COMPANY, ADDRESS HERE)

The objective of the Voice BioAnalysis evaluation hereby offered through (YOUR NAME OR COMPANY LISTED HERE) and it's independent contractors, is to determine the lack or loss of energy to specific areas of the body. Just as an acupuncturist uses the pulse, VoiceBio uses the frequencies of the voice. The VoiceBio evaluation is not licensed by the state and is considered complimentary to the healing arts services that are licensed. Any suggestions, comments, guidelines or information given will reference the energetics of the evaluation only, and support balancing the body energetically. All deficiencies or toxicities are implied in energetic terms only, and can be supplemented in myriad ways, not just through nutritional supplementation.

Information derived from the VoiceBio evaluation does not diagnose, prescribe or treat any known medical condition, and is for educational and informational use only. No claims are made for this analysis to substitute in any way for medical diagnosis, care, or treatment. This evaluation is not recognized by the FDA or AMA. (YOUR NAME) is not a licensed physician or surgeon, nor licensed by the state as a healing arts practitioner; and (IS or IS NOT) a Certified VoiceBio Sound Therapist. (LIST OTHER TRAINING/QUALIFICATION HERE)

The undersigned certifies that they, their agent or parent, are participating in this evaluation voluntarily and accept full responsibility in utilizing the information provided in the evaluation. The undersigned releases, indemnifies and holds (YOU), and it's independent contractors, harmless from all claims resulting from participation in this evaluation.

The undersigned does hereby give INFORMED CONSENT for the VoiceBio evaluation, any private follow-up consultation, and further agrees to grant permission for use of the information gathered during these procedures for research and educational purpose with all identifying personal identification removed.

Please list any medications that you are taking (include prescribing MD):

“I understand that all information gathered during this evaluation is for research purposes only; and by my signature below, acknowledge receipt of a copy of this agreement.”

Signature of Participant _____ Date _____

Please print name here _____

Address/City/State/Zip _____

_____ Are you pregnant or do you think you may be pregnant?

_____ Have you ever had a stroke, aneurism, or seizure of any kind?

VoiceBio Step by Step Instructions for Taking Voice Prints

Thompson-Liu, K. (2002). *VoiceBio Sound Therapy Course 1*. Hardy, VA: VIBEprints Corporation

1. Make sure microphone and VIBE are on, and everything is plugged in correctly.
2. Participant reads and signs waiver. Check for date/address/birth information on form.
3. Click on the VoiceBio icon to open the program. Click “continue” on the first screen, then right click on any blank area of the screen so a box will appear that says “enter participant data”/“print screen”/“exit program”. Click on “enter participant data”, enter participant name & birth date, then hit OK.
4. Make sure Base is checked for both Input and Display modes.
5. Explain to participants that you will ask them 3 quick questions. Explain the microphone as being unidirectional, how they are to hold it and how far away it is to be from their mouth. Make sure the microphone is on before you give it to them.
6. The Start button is also the Stop button. **When it is RED it is ON!** Make sure it is off (says Start) before participant begins to speak. Do not immediately turn it on, as many individuals will clear their throat or Hmmm before actually speaking and this will NOT create an effective voiceprint. *If this occurs, you will need to start all over!!*
7. Make sure participant does not have their legs crossed and that their back is supported. Also that they have not eaten or smoked in at least one hour.
8. Explain the base question: “Walk me through your house and describe it to me. For example: As I enter the house, the first thing I see is a couch and next to that is a table with a lamp, etc.” If participant is very emotional about the house for some reason, ask them to explain in detail the driving directions from their house to your office or perhaps to their parents or ?. Watch the counter until it gets to 65-75 hits and hit Stop.
9. Explain the stress question: “Talk to me about something that stresses you out so I can see how your body addresses stress. It can’t be something temporary like a car cutting you off in traffic, but something ongoing so that I can see your body’s reaction”. The counter should get to 65-75 before stopping. *Remember: if participant is deeply involved in explaining something stressful to you and you get to the number of hits you need, just turn off the computer by hitting stop and let the client finish talking about their stress before interrupting them! Do not interrupt them just because you are at 65-75 hits!!*

Instructions for Voice Prints - Continued

10. Explain the future question: "Tell me about something you want to do in the future – places you want to go, things you want to accomplish, things you want to see happen." If participant has no concept, tell them they just won the lottery for \$1 million and ask they how they would spend it..... their dreams and hopes will come on this way. Again, 65-75 hits.
11. IMMEDIATELY go to Data Files and save this voiceprint! Once saved, go back to Voice Input (one of two files) to discuss graph with the participant.
12. Turn off the VIBE machine and microphone to save battery life.
13. You can print any portion of the assessment by right clicking on any blank area of the software and clicking on "Print Screen".
14. **DO NOT** give out the assessment to your participant. Showing them the graph is recommended. Give participants Tones in the two lowest notes. Discuss the composite chart with them – the two lowest areas, the two highest areas.
15. If you have the time or the wish, check the Future chart to see if it is balancing for the participant. If not, which area was missing and what it is related to on an emotional basis. Is this a balanced chart? If so, explain to the participant that they need to manifest these wishes for more balance.
16. Discuss toning options for helping with the areas of stress in the participant.

Most common reasons the program won't work:

Battery is down (plug in DC source of power); you have more than one VoiceBio program open; Input and Display modes need to be on the same chart; microphone or VIBE is not turned on; equipment is not connected properly. And if all else fails, call for technical support at xxx-xxx-xxxx.

Equipment and software questions or (heaven forbid) problems:

Remember to contact technical support at xxx-xxx-xxxx. If you are unable to get the program to work (new computer, computer repair, etc.) have the computer on and available before you call for technical support. They can usually walk you through the process in minutes.

Voice Print 1 – Questions to ask participants

Base: Describe the furnishings in each room of your home?
(Visualize the room, mentally walk around it and call out each object)

Stress: Tell me about an on-going stress in your life? Not a recent, non-repeating stress.

(Although they may not generally discuss these stresses to others, it is important that you see the impact the stress (s) are creating on the body, so it is necessary that you talk about things which are seriously bothering you. This information will be held in strict confidence!)

Future: Tell me about something exciting that may happen in your future?
I have just given you one million dollars to spend, how will you spend it?

Voice Print 2 – Questions to ask participants

Base: Describe the driving directions from your home to your place of work?
(Visualize mentally and describe objects along the way)

Stress: Tell me about an on-going stress in your life? Again not a recent, non-repeating stress.

(Although they may not generally discuss these stresses to others, it is important that you see the impact the stress (s) are creating on the body, so it is necessary that you talk about things which are seriously bothering you. This information will be held in strict confidence!)

Future: Tell me about your hopes, dreams, and aspirations?
I have just given you one million dollars to spend, how will you spend it?

Directions for using the KORG (musical tuning device):

- Batteries are in the "bottom" of the box, not top.
- The 2 "push" buttons on either side will open the case when you hold them in and pull apart at the same time.
- Once batteries are in, turn the unit on. Hit the "Sound" button. It will only sound the notes of A and B.
- Hold down the "Sound" button until you see the note of C appearing. Now the Korg will play all 12 notes.
- E flat is the same as D#. B flat is the same as A#.
- You or participant should tone at least 5 minutes each day/evening in the note that is the lowest in their voiceprint AND that will not harm its opposite note.

PERFORMANCE CHECKLIST –Toning Technique

1. **React** – Involuntary actions/reaction, emotional, responds without thought, attentive motivated
2. **Attempt** – Shows interest in other's behavior, fails frequently, requires help to start
3. **Semi-independent** – Starts recognized tasks or steps, skips task or steps
4. ***Independent** (based on model performer) – Starts task on own, takes task to completion

*The "independent" learning proficiency level is based on the model performance as demonstrated on Video - Toning Technique.

Participant's Name	Criteria Participants are observed performing the following two tasks:	Learning Proficiencies			
		1 React	2 Attempt	3 Semi- Independent	4 Independent
	1. Tone vowels (a, e, i, o, u) one time ascending the chromatic scale				
	2. Demonstrate hand signs one time without error				
	1. Tone vowels (a, e, i, o, u) one time ascending the chromatic scale				
	2. Demonstrate hand signs one time without error				
	1. Tone vowels (a, e, i, o, u) one time ascending the chromatic scale				
	2. Demonstrate hand signs one time without error				
	1. Tone vowels (a, e, i, o, u) one time ascending the chromatic scale				
	2. Demonstrate hand signs one time without error				

Learning Objective: Given a video demonstration, learners will be able to apply a toning technique according to performance checklist.

This performance checklist / rating scale is based on information from Morrison, G. R., Ross, S. M., & Kemp, J. E. (2001). *Designing Effective Instruction*. (3rd ed.) New York, NY: John Wiley & Sons, Inc. p. 246-247.

PERFORMANCE CHECKLIST – Toning Prescription

1. **React** – Involuntary actions/reaction, emotional, responds without thought, attentive motivated
2. **Attempt** – Shows interest in other's behavior, fails frequently, requires help to start note or shape vowels.
3. **Semi-Independent** – Starts on note or tones correct vowel, requires help to sustain note or shape vowels.
4. ***Independent** (based on model performer) – Finds note or vowel shape on own, sustains note for total time, or tones vowel shape correctly.

*The "independent" learning proficiency level is based on the model performance demonstrated by the instructor.

Participant's Name	Criteria Participants are observed performing the following two tasks:	Learning Proficiencies			
		1 React	2 Attempt	3 Semi-Independent	4 Independent
	1. Tone prescribed vowel using correct shape of mouth				
	2. Sustain note for 5 minutes				
	1. Tone prescribed vowel using correct shape of mouth				
	2. Sustain note for 5 minutes				
	1. Tone prescribed vowel using correct shape of mouth				
	2. Sustain note for 5 minutes				
	1. Tone prescribed vowel sound using correct shape of mouth				
	2. Sustain note for 5 minutes				

Learning Objective: Hearing a note representing the lowest note on their voice print, learners will be able to tone a prescribed vowel sound for 5 min.

This performance checklist / rating scale is based on information from Morrison, G. R., Ross, S. M., & Kemp, J. E. (2001). *Designing Effective Instruction*. (3rd ed.) New York, NY: John Wiley & Sons, Inc. p. 246-247.

TONING REFERENCES**BOOKS:**

1. Beaulieu, J. (1987). *Music and Sound in the Healing Arts*. Barrytown, New York: Station Hill Press.
2. Bennett, B. (2002). *Emotional Yoga*. New York, NY: Fireside of Simon & Schuster, Inc.
3. Bernard, P. (2004). *Music as Yoga: Discover the Healing Power of Sound*. San Rafael, CA: Mandala Publishing.
4. Campbell, D. G. (1989). *The Roar of Silence*. (Fourth ed.) The Theosophical Publishing House.
5. Gaynor, M. L. (2002). *The Healing Power of Sound: Recovery from Life-Threatening Illness Using Sound, Voice, and Music*. Boston, Massachusetts: Shambhala.
6. Goldman, J. (2002). *Healing Sounds: The Power of Harmonics*. (3rd ed.) Rochester, Vermont: Healing Arts Press.
7. Keyes, L. E. (1973). *Toning: The Creative Power of the Voice*. (Fifteenth Printing, 1997 ed.) Marina del Rey, CA: DeVorss & Company.

WEBSITES:

1. Edwards, S. (2005). Definitive Theory of Human BioAcoustic Vocal Profiling. *Journal of BioAcoustic Biology (JBAB)*. www.vocalprofiling.com
2. Lyle, Heather. The founder of Vocal Yoga - Having a Harmonious Relationship With Your Voice <http://www.vocalyoga.com>
3. Thompson, J. D. (1997). Bio-Tuning: Using the sound of your own voice to facilitate self-healing. Center for Neuroacoustic Research [On-line]. Available: <http://www.neuroacoustic.com/biotuning.html>
4. Thompson-Liu, K. (2002). *VoiceBio Sound Therapy Course 1*. Hardy, VA: VIBeprints Corporation. <http://www.voicebio.com/index.php>

Evaluation Survey

Thank you for participating in the workshop on **Toning for Emotional Management**. Please take a few minutes to evaluate the workshop and provide your insights as to how we can improve its content, activities, functionality, and overall usability. This survey is anonymous; therefore, it preserves your confidentiality. You are free to make any comments or responses on this survey.

How satisfied are you with:

1. the quality of the overall workshop?

Very Satisfied Satisfied Dissatisfied Very Dissatisfied

2. the scope of information presented?

Very Satisfied Satisfied Dissatisfied Very Dissatisfied

3. the usefulness of the information?

Very Satisfied Satisfied Dissatisfied Very Dissatisfied

4. the quality of the PowerPoint presentation?

Very Satisfied Satisfied Dissatisfied Very Dissatisfied

5. the delivery of the instruction?

Very Satisfied Satisfied Dissatisfied Very Dissatisfied

6. the amount of time to discuss information with your peers?

Very Satisfied Satisfied Dissatisfied Very Dissatisfied

7. the time dedicated to practice the toning technique demonstrated in the video?

Very Satisfied Satisfied Dissatisfied Very Dissatisfied

Evaluation Survey (continued)**How satisfied are you with:**

8. the amount of time dedicated for feedback on each activity?

Very Satisfied	Satisfied	Dissatisfied	Very Dissatisfied
-----------------------	------------------	---------------------	--------------------------

9. the knowledge and professionalism of the instructor?

Very Satisfied	Satisfied	Dissatisfied	Very Dissatisfied
-----------------------	------------------	---------------------	--------------------------

10. the game activities as motivational experiences for you?

Very Satisfied	Satisfied	Dissatisfied	Very Dissatisfied
-----------------------	------------------	---------------------	--------------------------

11. the voice print analysis process?

Very Satisfied	Satisfied	Dissatisfied	Very Dissatisfied
-----------------------	------------------	---------------------	--------------------------

12. your ability to use toning to begin managing your emotional imbalances?

Very Satisfied	Satisfied	Dissatisfied	Very Dissatisfied
-----------------------	------------------	---------------------	--------------------------

13. the reading material in clarifying information presented in the workshop?

Very Satisfied	Satisfied	Dissatisfied	Very Dissatisfied
-----------------------	------------------	---------------------	--------------------------

14. the usefulness of the PowerPoint slides in facilitating understanding of the topic?

Very Satisfied	Satisfied	Dissatisfied	Very Dissatisfied
-----------------------	------------------	---------------------	--------------------------

15. the length of the workshop?

Very Satisfied	Satisfied	Dissatisfied	Very Dissatisfied
-----------------------	------------------	---------------------	--------------------------

Evaluation Survey (continued)**How satisfied are you with:**

16. the delivery of instructions throughout the workshop?

Very Satisfied Satisfied Dissatisfied Very Dissatisfied

17. the number of activities included the workshop?

Very Satisfied Satisfied Dissatisfied Very Dissatisfied

18. the number of breaks provided?

Very Satisfied Satisfied Dissatisfied Very Dissatisfied

19. I believe I can recall two scientific aspects of sound.

Strongly Agree Agree Disagree Strongly Disagree

20. Sounds below 16 HZ are called ELFS for extremely low frequencies.

Strongly Agree Agree Disagree Strongly Disagree

21. I believe I can explain what Toning is as described in the workshop.

Strongly Agree Agree Disagree Strongly Disagree

22. Words utilized to create meaning and are repeated in recitation are examples of Toning.

Strongly Agree Agree Disagree Strongly Disagree

Toning: An Emotional Management Workshop

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Evaluation Survey (continued)

23. I believe I can describe the relationship between emotions and toning as presented in the workshop.

Strongly Agree Agree Disagree Strongly Disagree

24. An emotion is an attitude linked to a sensation.

Strongly Agree Agree Disagree Strongly Disagree

25. I believe I can perform the Technique for Toning as demonstrated in the workshop.

Strongly Agree Agree Disagree Strongly Disagree

26. Toning sounds such as yawning, sneezing, and belching are examples of how to form my vowels while toning.

Strongly Agree Agree Disagree Strongly Disagree

27. Doing the toning techniques energizes me.

Strongly Agree Agree Disagree Strongly Disagree

28. I am motivated to learn more about how toning affects my emotions.

Strongly Agree Agree Disagree Strongly Disagree

29. Please tell us what we should do to improve the quality of this Workshop.

30. Any other comments?

APPENDIX H

California State University, Chico
Chico, California 95929-0875
School of Graduate, International, and Interdisciplinary Studies
Phone: 530-898-6880
Fax: 530-898-6889



May 11, 2006

Andreini McPherson-Husbands
100 Sterling Oaks Drive #245
Chico, CA 95928



Dear Andreini McPherson-Husbands,

As the Chair of the Campus Institutional Review Board, I have determined that your research proposal entitled "A DESIGN AND DEVELOPMENT OF A VOCAL WORKSHOP FOR EMOTIONAL MANAGEMENT" is exempt from full committee review. This clearance allows you to proceed with your study.

I do ask that you notify our office should there be any further modifications to, or complications arising from or within, the study. In addition, should this project continue longer than the authorized date, you will need to apply for an extension from our office. When your data collection is complete, you will need to turn in the attached Post Data Collection Report for final approval. Students should be aware that failure to comply with any HSRC requirements will delay graduation. If you should have any questions regarding this clearance, please do not hesitate to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "John Mahoney".

John Mahoney, Ph.D., Chair
Human Subjects in Research Committee

Attachment: Post Data Collection Report

cc: John Roussell (504)

**EMAIL CORRESPONDENCE:
SEEKING CANDIDATES FOR PILOT TEST AND EVALUATION OF WORKSHOP**

Hello, my name is Andreini Husbands. Your name and contact information was given to me by Dr. Paula Barros.

I am a graduate student from the Instructional Design and Technology Department at CSU, Chico, CA and for my thesis project I am developing a workshop on the subject of toning for emotional management.

On Sunday, November 12, 2006, at 2:00PM I will be doing a pilot testing and evaluation of the workshop. Dr. Barros is one of the subject matter experts on this project and recommended you as a suitable candidate for the workshop.

Thank you for consenting to participate. Attached are the project guidelines to ensure success of the project.

I look forward to meeting you on Sunday and sharing in on your experiences in the workshop.

In the spirit of life & learning,

Andreini

PROJECT GUIDELINES

Participation in the following will assist us in collecting the best data possible and make it an enjoyable experience for you as well.

1. In order to collect all the data necessary, participating in this workshop will require a total of 21/2 hours of your time.
2. Participants will receive a monetary award (of \$25) upon completion of the workshop. If at some point during the workshop you decide to discontinue, there will be no award for incomplete participation.
3. You may withdraw from this evaluation at any time without penalty.
4. All data will be collected anonymously by assigning each participant a learner number.

Day of Workshop

1. Location: Clear Creek Healing & Retreat Center
xxxx Clark Road
Butte Valley, CA

For directions call:
Phone: xxx-xxx-xxxx

Time: 2PM – 4:30PM

PLEASE BE PROMPT – the workshop activities are structured within time limits.

2. Voice Print – Pre & Post assessments

- A voice print will be taken at the beginning of the workshop and toward the end of the workshop. Under supervision, you will be asked three questions. You will respond to the questions by speaking into a microphone that will be hooked-up to a computer and specialized equipment. The sound of your voice will be deciphered and then plotted on a computer-generated graph or “voice print” that matches pitches in a musical scale. These voice prints will be used in the workshop.
 - PREPARATIONS – Please do not eat at least 1 hour prior to the workshop. In addition, a voice print cannot be done after someone has smoked, had gum, tea, or coffee. All these things as well as having food on your stomach while recording a voice print will contaminate the data that is being collected. Your cooperation is highly appreciated. There will be snacks available and a light meal will be provided after the workshop focus group interview.
3. Workshop Activities - wear comfortable clothing
 4. 5 minute Evaluation Survey – immediately following workshop
 5. 10 minute Focus Group Interview – immediately following evaluation

Contact

Feel free to contact me, Andreini (Awn-dra-knee) Husbands, phone: xxx-xxx-xxxx or my email: _____ to learn of any further details of your participation in pilot test of the workshop which is not mentioned in this email. I will be happy to answer all your questions to your complete satisfaction, except for questions regarding the actual content of the workshop.

DESIGNER'S SCRIPT FOR ORIENTATION TO THESIS PROJECT

Welcome everyone to the Clear Creek Healing Center and thank you for your participation today. My name is Andreini Husbands. I am a graduate student from the Instructional Design and Technology department at CSU Chico and for my thesis project; I am developing a workshop on the subject of Toning for Emotional Management. This is my assistant, Andreina Shelton, who will assist me in collecting data and taking care of the technological aspects of the workshop.

During the development process of this workshop, evaluating and usability testing are necessary. In order to collect the data that will guide my development of the workshop, I am conducting this pilot run today. This workshop is being designed for Dr. Paula Barros who is also one of my subject matter experts on this project.

Paula is a Doctor of Chiropractic and earned her degree from Palmer West Chiropractic in 1985. In 1987 she established Clear Creek Healing Center here in Butte Valley. She is a certified Yoga Instructor, registered with Yoga Alliance and presently affiliated with Anusara Yoga. Paula has been practicing and teaching yoga since 1976. Her philosophy is living life to its fullest and being healthy in body, mind, and spirit. Paula's desire to incorporate sacred sound and chanting in her yoga programs piqued my interest in wanting to partner with her for the development of workshops on this subject.

Our first workshop centers around one of the basic components of chanting, called toning. The workshop activities are based on a combination of techniques from several renown experts such as Toning Pioneer, Laurel Keyes, Endocrinologist, Deepak Chopra in the field of mind body medicine; Sound Therapists, John Beaulieu, Jonathan Goldman, and Ted Andrews in the field of Vibrational medicine, Internationally renown yoga instructor, Bija Bennett on the

philosophy of emotional yoga, Kae Thompson-Liu and Sharry Edwards in the field of Vocal Profiling, and former CSU Chico State University Voice and Music Professor Jeffrey Gemmell. What makes this workshop different from other toning workshops is that we are using vocal profiling to show how toning is linked to the emotions, and how through toning, emotions can be managed.

As I mentioned before, this workshop is designed for Dr. Barros. She will be in training today and participants such as your selves are making it possible for her to practice delivery of the workshop.

Even though this workshop is under construction, I'd appreciate your full cooperation and efforts to fully engage in all the workshop activities to the best of your abilities. The workshop may come across a bit disjointed at times because I may need to stop to assist Paula. Also I may call a time out to clarify specific points along the way. I encourage you to take notes. Pay attention to anything that is confusing to you, whether it is what the instructor is saying, information in the reading material, the PowerPoint slides, or instructions on how to do any of the workshop activities.

If you don't have comments regarding activities during the workshop, there will be a designated time at the conclusion of the workshop for you to reflect further and write your comments. I encourage your honest comments and suggestions. Your feedback will not offend me, but rather help me to work the glitches out. All data will be collected anonymously, so please do not write your name on any of the material you will be given during the workshop. Again, thank you for your participation. (Distribute THESIS PROJECT INFORMED CONSENT FORMS to participants for their signatures during Section 1-Orientation of the workshop).

THESIS PROJECT INFORMED CONSENT FORM

Designer Contact Info:

Name: Andreini McPherson-Husbands
 Address: _____
 Phone: _____
 Email: _____

Thank you for agreeing to participate in this research project, which has been in effect since early September of 2006. This form outlines the purpose of the research project and provides a description of your involvement and rights as a participant.

The purpose of this project is to develop and evaluate a workshop on the subject of Toning for Emotional Management for students of Yoga, Yoga instructors, and other interested health care practitioners.” The methods to be used to collect information for this project are explained below.

1. Evaluation Survey (5 minutes)
 Immediately after the workshop, in which I would have observed your participation, you will be asked to complete a survey to gather your perspectives on the functionality, usability, activities, and subject matter of the workshop.
2. Focus group interview (15 minutes)
 You will be free to answer questions I will present to the entire group about certain aspects of the workshop.

From the information collected, I will write an evaluation report about the workshop development process, and your perceptions of it. The evaluation report will be read by the subject matter expert involved with the project and by two other persons in order to check on the accuracy of the report. You are encouraged to ask any questions at any time about the nature of the project and the methods that I am using. Your suggestions and concerns are important to me; please contact me at any time at the address/phone number listed above. I guarantee that the following conditions will be met:

- 1) Your name will not be used at any point of information collection, or in the evaluation report.
- 2) If you grant permission for audio taping, no audio tapes will be used for any purpose other than to do this study, and thereafter will be destroyed.
- 3) In order to collect all the data necessary, participating in this workshop will require a total of 2 ½ hours of your time.

- 4) You will receive a monetary award (of \$25) upon completion of the workshop. If at some point during the workshop you decide to discontinue, there will be no award for incomplete participation.
- 5) Your participation in this project is voluntary; you may withdraw from this evaluation at any time without penalty.

Do you grant permission to be audio taped? Yes _____ No _____

I agree to the terms: Respondent _____ Date _____

I agree to the terms: Instructional Designer _____ Date _____

Informed Consent and Release VoiceBio Sound Therapy Evaluation

The objective of the Voice BioAnalysis evaluation hereby offered through (**Andreini McPherson-Husbands**) is to determine the lack or loss of energy to specific areas of the body. Just as an acupuncturist uses the pulse, VoiceBio uses the frequencies of the voice. The VoiceBio evaluation is not licensed by the state and is considered complimentary to the healing arts services that are licensed. Any suggestions, comments, guidelines or information given will reference the energetics of the evaluation only, and support balancing the body energetically. All deficiencies or toxicities are implied in energetic terms only, and can be supplemented in myriad ways, not just through nutritional supplementation.

Information derived from the VoiceBio evaluation does not diagnose, prescribe or treat any known medical condition, and is for educational and informational use only. No claims are made for this analysis to substitute in any way for medical diagnosis, care, or treatment. This evaluation is not recognized by the FDA or AMA. (Andreini McPherson-Husbands) **is not** a licensed physician or surgeon, nor licensed by the state as a healing arts practitioner; and (**is not**) a Certified VoiceBio Sound Therapist. Andreini McPherson-Husbands holds a Bachelor of Science degree in Instructional Technology, and is currently pursuing a Master of Science degree in Instructional Design & Technology.

The undersigned certifies that they, their agent or parent, are participating in this evaluation voluntarily and accept full responsibility in utilizing the information provided in the evaluation. The undersigned releases, indemnifies and holds (Andreini McPherson-Husbands), harmless from all claims resulting from participation in this evaluation.

The undersigned does hereby give INFORMED CONSENT for the VoiceBio evaluation, any private follow-up consultation, and further agrees to grant permission for use of the information gathered during these procedures for research and educational purpose with all identifying personal identification removed.

Please list any medications that you are taking (include prescribing MD):

“I understand that all information gathered during this evaluation is for research purposes only; and by my signature below, acknowledge receipt of a copy of this agreement.”

Signature of Participant _____ Date _____

Please print name here _____

Address/City/State/Zip _____

_____ Are you pregnant or do you think you may be pregnant?

_____ Have you ever had a stroke, aneurysm, or seizure of any kind?

APPENDIX I

Evaluation Questionnaire

Thank you for participating in the workshop on **Toning for Emotional Management**. Please take a few minutes to evaluate the workshop and provide your insights as to how we can improve its content, activities, functionality, and overall usability. This survey is anonymous; therefore, it preserves your confidentiality. You are free to make any comments or responses on this survey.

How satisfied are you with:

1. the quality of the overall workshop?

Very Satisfied Satisfied Dissatisfied Very Dissatisfied

2. the scope of information presented?

Very Satisfied Satisfied Dissatisfied Very Dissatisfied

3. the usefulness of the information?

Very Satisfied Satisfied Dissatisfied Very Dissatisfied

4. the quality of the PowerPoint presentation?

Very Satisfied Satisfied Dissatisfied Very Dissatisfied

5. the delivery of the instruction?

Very Satisfied Satisfied Dissatisfied Very Dissatisfied

6. the amount of time to discuss information with your peers?

Very Satisfied Satisfied Dissatisfied Very Dissatisfied

Evaluation Questionnaire (continued)

7. the time dedicated to practice the toning technique demonstrated in the video?

Very Satisfied Satisfied Dissatisfied Very Dissatisfied

How satisfied are you with:

8. the amount of time dedicated for feedback on each activity?

Very Satisfied Satisfied Dissatisfied Very Dissatisfied

9. the knowledge and professionalism of the instructor?

Very Satisfied Satisfied Dissatisfied Very Dissatisfied

10. the game activities as motivational experiences for you?

Very Satisfied Satisfied Dissatisfied Very Dissatisfied

11. the voice print analysis process?

Very Satisfied Satisfied Dissatisfied Very Dissatisfied

12. your ability to use toning to begin managing your emotional imbalances?

Very Satisfied Satisfied Dissatisfied Very Dissatisfied

13. the reading units in clarifying information presented in the workshop?

Very Satisfied Satisfied Dissatisfied Very Dissatisfied

14. the usefulness of the PowerPoint slides in facilitating understanding of the topic?

Very Satisfied Satisfied Dissatisfied Very Dissatisfied

Evaluation Questionnaire (continued)

15. the length of the workshop?

Very Satisfied Satisfied Dissatisfied Very Dissatisfied

How satisfied are you with:

16. the delivery of instructions throughout the workshop?

Very Satisfied Satisfied Dissatisfied Very Dissatisfied

17. the number of activities included the workshop?

Very Satisfied Satisfied Dissatisfied Very Dissatisfied

18. the number of breaks provided?

Very Satisfied Satisfied Dissatisfied Very Dissatisfied

*Correct Answers

19. I believe I can recall two scientific aspects of sound.

Strongly Agree Agree Disagree Strongly Disagree

20. Sounds below 16 HZ are called ELFS for extremely low frequencies.

Strongly Agree *Agree Disagree Strongly Disagree

21. I believe I can explain what Toning is as described in the workshop.

Strongly Agree Agree Disagree Strongly Disagree

Evaluation Questionnaire (continued)

22. Words utilized to create meaning and are repeated in recitation are examples of Toning.

Strongly Agree **Agree** *** Disagree** **Strongly Disagree**

23. I believe I can describe the relationship between emotions and toning as presented in the workshop.

Strongly Agree **Agree** **Disagree** **Strongly Disagree**

24. An emotion is an attitude linked to a sensation.

Strongly Agree *** Agree** **Disagree** **Strongly Disagree**

25. I believe I can perform Gemmell's Technique for Toning as demonstrated in the workshop.

Strongly Agree **Agree** **Disagree** **Strongly Disagree**

26. Toning sounds such as yawning, sneezing, and belching are examples of how to form my vowels while toning.

Strongly Agree **Agree** *** Disagree** **Strongly Disagree**

27. Please tell us what we should do to improve the quality of this Workshop.

TONING FOR EMOTIONAL MANAGEMENT WORKSHOP
Focus Group Interview Questions

1. What did you like most about this workshop and why?
 - Do you agree with that?
 - Do you feel that way too?
 - You look like you disagree with what was just said. Do you?

2. What did you like least about this workshop and why?
 - Do you agree with that?
 - Do you feel that way too?
 - You look like you disagree with what was just said. Do you?

1. Do you believe you know what toning is? Could you give some examples of toning?
 - Do you agree with that?
 - Do you feel that way too?
 - You look like you disagree with what was just said. Do you?

4. How would you improve this workshop?
 - Do you agree with that?
 - What would you do differently from that person?
 - Do you feel that way too?
 - You look like you disagree with what was just said. Do you?

2. What other information would you like to provide to the designers of the workshop?
 - Do you agree with that?
 - What would you do differently from that person?
 - Do you feel that way too?
 - You look like you disagree with what was just said. Do you?

Observation Checklist

Course name:	<i>Toning for Emotional Management</i>						
Observer's name:							
Observation date:	<i>11-12-06</i>						
Training facility:	<i>Clear Creek Healing & Retreat Center</i>						
Total participants:	5	Participants observed:	1	2	3	4	5
Directions: Indicate participants' responses by writing the designated number of the participant(s) you have been assigned to observe in the corresponding Yes or No columns below.							
Course Sections Observed							
Workshop Orientation-Section 1:	Yes	No	Comments:				
1. Instructor guide easy to follow							
2. Instructional goal(s) clear							
3. Instructor appears frustrated							
4. Participant Voice Print 1 instructions easy to follow							
5. Participant Crossword Puzzle activity easy to follow							
6. Participant(s) appears frustrated							
7. PowerPoint slides easy to follow							
8. Participant says he or she likes the activity(s)							
9. Participant participates in the activity(s) with enthusiasm							
10. Participant shares his or her interest in the activity(s) by discussing it with others or encouraging others to participate							

Course Sections Observed Introduction to Toning – Section 2:	Yes	No	Comments:
1. Instructor guide easy to follow			
2. Introduction easy to follow			
3. Overview easy to follow			
4. Toning Ice-Breaker Activity easy to follow			
5. Participant's instructions for Toning Ice-Breaker Activity easy to follow			
6. Period for practice and feedback adequate			
7. Crossword Review easy to follow			
8. Definition of Toning easy to follow			
9. Depictions of Toning Sounds easy to follow			
10. Period for Reflection adequate			
11. Period for Break adequate			
12. Instructor appears frustrated			
13. Participant(s) appear frustrated			
14. PowerPoint slides easy to follow			
15. Participant says he or she likes the activity(s)			
16. Participant participates in the activity(s) with enthusiasm			
17. Participant shares his or her interest in the activity(s) by discussing it with others or encouraging others to participate			

Course Sections Observed Emotions & Toning – Section 3:	Yes	No	Comments:
1. Instructor guide easy to follow			
2. Definition of Emotion easy to follow			
3. Cycle of Emotion easy to follow			
4. Definition of Psychosomatic easy to follow			
5. Technique for Toning easy to follow			
6. Video clip clearly demonstrates technique for Toning			
7. Linking Emotions to Toning Activity easy to follow			
8. Participant's instructions for Linking Emotions to Toning Activity easy to follow			
9. Period for practice and feedback adequate			
10. Period for Reflection adequate			
11. Instructor appears frustrated			
12. Participant(s) appear frustrated			
13. PowerPoint slides easy to follow			
14. Participant says he or she likes the activity(s)			
15. Participant participates in the activity(s) with enthusiasm			
16. Participant shares his or her interest in the activity(s) by discussing it with others or encouraging others to participate			

Course Sections Observed Emotional Characteristics–Section 4:	Yes	No	Comments:
1. Instructor guide easy to follow			
2. Handout: Emotional Characteristics of the Notes easy to follow			
3. Handout: Emotional Characteristics of the Notes clearly displays relationships			
4. Voice Print Analysis 1 easy to follow			
5. Participant's instructions for Voice Print Analysis 1 activity easy to follow			
6. Period for practice and feedback adequate			
7. Low Note Toning Activity easy to follow			
8. Participant's instructions for Low Note Toning Activity easy to follow			
9. Period for practice and feedback adequate			
10. Participant Voice Print 2 instructions easy to follow			
11. Participant's 3 out 8 Chunks Puzzle activity easy to follow			
12. Period for Reflection adequate			
13. Period for Break adequate			
14. Instructor appears frustrated			
15. Participant(s) appear frustrated			
16. PowerPoint slides easy to follow			
17. Participant says he or she likes the activity(s)			
18. Participant participates in the activity(s) with enthusiasm			
19. Participant shares his or her interest in the activity(s) by discussing it with others or encouraging others to participate			

Course Sections Observed Emotional Management – Section 5:	Yes	No	Comments:
1. Instructor guide easy to follow			
2. Emotional Management Guide easy to follow			
3. Emotional Management Guide clearly displays relationships			
4. Voice Print Analysis 2 activity easy			
5. Participant's instructions for Voice Print Analysis 2 activity easy to follow			
6. Period for practice and feedback adequate			
7. Remaining 5 Chunks Puzzle activity & Review easy to follow			
8. Summary easy to follow			
9. Listening Activity easy to follow*			
10. Participant's instructions for Listening Activity easy to follow*			
11. Audio selection clearly demonstrates instructional concepts presented in workshop*			
12. Period for Reflection adequate*			
13. Instructor appears frustrated			
14. Participant(s) appear frustrated			
15. PowerPoint slides easy to follow			
16. Participant says he or she likes the activity(s)			
17. Participant participates in the activity(s) with enthusiasm			
18. Participant shares his or her interest in the activity(s) by discussing it with others or encouraging others to participate			

* Items 9 – 12 are optional activities

APPENDIX J

Table 1

Items Categorized under MAJOR THEMES	Findings from Observation Checklist
1. Delivery of instruction	<p>All four participants appeared to follow easily most of the PowerPoint slides and the instructions for the majority of activities in each of the five sections of the workshop. Participants appeared frustrated during the Crossword Puzzle Review due to their attempt to keep up with the instructor as she rushed through the answers. This was also the case with the two Voice Print Analysis activities. The participants looked confused where the instructor either rushed through the instructions or read verbatim from the script about how to interpret the voice prints.</p>
2. Workshop materials	<p>All participants appeared to easily follow the directions on both Reading Units. The Chunk Puzzle activity that corresponded with Reading Unit 2 proved more difficult to complete for three out of four participants. The initial impression from the participants was that the Chart on Emotional Characteristics of the Notes was not easy to follow. After an additional explanation aside from what the instructor stated from the Instructor Guide, all participants seemed more comfortable with it. Three out of the four participants appeared to follow the Emotional Management Guide without difficulty.</p>
3. Instructor's presentation	<p>The instructor appeared in control of the workshop and was comfortable with leading most of the discussions except for those topics where she rushed her statements. During the Summary that concluded the workshop, the instructor only read the points on the PowerPoint slide and due to running over time did not get to elaborate or make a connection between the workshop's objectives and the various activities.</p>

Table 1 (continued)

Items Categorized under MAJOR THEMES	Findings from Observation Checklist
4. Workshop activities	The impression given by all the participants was that most of the activities engaged them in a positive manner. There were smiles and laughter from all participants during the Toning Ice-Breaker activity. All were especially enthusiastic when getting their own voice prints taken and showed curiosity when attempting to interpret them. All four participants remained attentive to the instructor's instructions and comments and came across eager to discuss the topic on Toning Sounds as well as the topic on Linking Emotions to Toning. All four participants actively engaged one another by comparing their voice prints and discussing points of interest to them from the Emotional Management Guide. For the Low Note Toning activity, participants seemed pleased with the one-on-one attention where they were each given a prescribed vowel to tone in another room.
5. Overall workshop design	Though participants were positive about the workshop overall and talked positively about their toning experiences, most of the design weaknesses concerned time factors. More time was needed for completing the Reading Unit/Puzzle Game activities, for discussions after topics were presented, for practice and feedback of all the toning activities, and for interpretation of the voice prints.
8. Personal benefits of toning	During discussion after the Toning Ice-Breaker activity, participant #1 stated that she felt a sense of "unity" when toning. Participant #3 said that toning his own name brought on happy feelings, and participant #2 expressed that he liked hearing and toning the names of other participants. Participant #4 displayed positive support of other participants when they toned their names.

Table 2

Results of Objectives Compiled from Observation Checklist	No. of Participants that Met Objectives	
	yes	no
<p>1. Given a game activity, learners will be able to recall facts and concepts of toning, based on information provided in the workshop.</p> <p>Criterion measure: Each learner completes a Crossword Puzzle COGNITIVE</p>	2	2
<p>2. During a discussion, learners will be able to define toning, based on the definition provided in the workshop.</p> <p>Criterion measure: Learners jointly recount a short answer response to question: What is the definition of toning used in the context of this workshop? COGNITIVE</p>	4	
<p>3. Given an explanation about emotion, learners will be able to identify the <i>Cycle of Emotions</i> according to the information provided in the workshop.</p> <p>Criterion measure: Learners jointly complete five fill-in-the-blank sentences with the appropriate emotion for the Cycle of Emotions. COGNITIVE</p>	4	
<p>4. Given a video demonstration, learners will be able to apply the Technique for toning according to the instructor's performance checklist.</p> <p>Criterion measure: According to instructor's performance checklist, learners demonstrate the following two tasks: 1) Tone vowels a,e,i,o,u, 2) Demonstrate associated hand signs PSYCHOMOTOR</p>	4	
<p>5. Given a question, learners will be able to discuss toning sounds linked to emotions, based on two images presented in the workshop.</p> <p>Criterion measure: Learners jointly respond to the following two discussion questions: 1) What is your perception of the 1st image? 2) What is your perception of the 2nd image? COGNITIVE</p>	4	
<p>6. Learners will be able to analyze a preliminary voice print according to a handout entitled The Emotional Characteristics of the Notes.</p> <p>Criterion measure: Using their own voice print, each learner compares a high and low note with its emotional correlates. COGNITIVE</p>	4	

Table 2 (continued)

Results of Objectives Compiled from Observation Checklist		No. of Participants that Met Objectives	
		yes	no
Objectives			
7. Hearing a keynote representing the lowest note on their voice print, learners will be able to tone a prescribed vowel sound for 5 minutes. Criterion measure: According to instructor's performance checklist, learners demonstrate the following two tasks: 1) Tone prescribed vowel sound, 2) Sustain keynote for 5 minutes PSYCHOMOTOR		4	
8. Given a second voice print, learners will be able to interpret it according to the Toning & Emotional Management Guide. Criterion measure: Using the Toning & Emotional Management Guide, each learner locates the vowel that corresponds to the keynote on their 2 nd voice print. COGNITIVE		4	
9. Given a game activity, learners will be able to identify one of the benefits of toning according to information presented in the workshop. Criterion measure: Each learner rearranges the chunks of a sentence about the benefit of toning into a grammatically complete sentence. COGNITIVE		1	3
10. Given a survey about the workshop, learners will be able to indicate their level of appreciation for toning and its benefits. Criterion measure: Learners complete an Evaluation Survey. AFFECTIVE		4	

Table 3

Items Categorized under Major Themes	Findings from Evaluation Questionnaire Total Participants Responding = 4			
	Very Satisfied	Satisfied	Dissatisfied	Very Dissatisfied
1. Delivery of instruction. <u>How satisfied are you with:</u>				
the scope of information presented?	1	3		
the quality of the PowerPoint presentation?	1	2	1	
the delivery of the instruction?		4		
the usefulness of the PowerPoint slides in facilitating understanding of the subject matter?		4		
the delivery of instructions throughout the workshop?	1	3		
2. Workshop materials. <u>How satisfied are you with:</u>				
the reading material in clarifying information presented in the workshop?	1	2	1	
3. Instructor's performance. <u>How satisfied are you with:</u>				
the knowledge and professionalism of the instructor?	2	2		

Table 3 (continued)

Items Categorized under Major Themes	Findings from Evaluation Questionnaire			
	Very Satisfied	Satisfied	Dissatisfied	Very Dissatisfied
4. Workshop activities. <u>How satisfied are you with:</u>				
the game activities as motivational experiences for you?	1	1	2	
5. Overall workshop design. <u>How satisfied are you with:</u>				
the quality of the overall workshop?	1	3		
the amount of time to discuss information with your peers?		1	3	
the time dedicated to practice toning skills demonstrated in the video?		3	1	
the amount of time dedicated for feedback on each activity?		3		
the length of the workshop?		3	1	
the number of activities included in the workshop?		4		

Table 3 (continued)

6. Perceived learning about toning.	Strongly Agree	Agree	Disagree	Strongly Disagree
I believe I can recall two scientific aspects of Sound?		3	1	
I believe I can explain what Toning is as described in the workshop?		3	1	
I believe I can describe the relationship between emotions and Toning as presented in the workshop		4		
I believe I can perform the technique for Toning as demonstrated in the video clip?		2	2	
7. Actual learning about toning.	Strongly Agree	Agree	Disagree	
Sounds below 16 HZ are called ELFS for extremely low frequencies.	1	3		
Words utilized to create meaning and are repeated in recitation are examples of Toning?		1	1	
An emotion is an attitude linked to a sensation.		4		
Toning sounds such as yawning, sneezing, and belching are examples of how to form my vowels while toning?		2	2	

Table 3 (continued)

8. Personal benefits of toning. <u>How satisfied are you with:</u>	Very Satisfied	Satisfied	Dissatisfied	Very Dissatisfied
the usefulness of the information?	2	2		

Table 4

Items Categorized under Major Themes	Findings from Focus Group
1. Delivery of instruction	<ul style="list-style-type: none"> • Two of the participants preferred the PowerPoint presentation to the reading material. • Others said they enjoyed learning about toning because it was something new.
2. Workshop materials	<ul style="list-style-type: none"> • One participant stated that he liked learning about the ancient history of toning in the reading material.
3. Instructor's presentation	<ul style="list-style-type: none"> • Two of the participants thought the instructor should stand when delivering the presentation.
4. Workshop activities	<ul style="list-style-type: none"> • All participants agreed that they like the voice print analysis. They also stated that they liked active participation over reading. • One person expressed that she liked the flow of the workshop activities and said it was smooth overall.
5. Overall workshop design	<ul style="list-style-type: none"> • All the participants expressed that what they liked least was that there was not enough time. • To improve the workshop, one participant suggested extending the time so that participants would have more practice time with the toning technique and be able to take what was learned and apply it in their lives. • Another participant agreed more time is needed for feedback and repetition of the toning technique.
6. Perceived learning about toning	<ul style="list-style-type: none"> • Three of the participants nodded in agreement that they believed they knew what toning was.
7. Actual learning about toning	<ul style="list-style-type: none"> • The designer found that three of the participants were able to provide examples of toning. This was consistent with participants' short-term retention of knowledge indicated on the Evaluation Participant Questionnaire.

Table 5

Items Categorized under Major Themes	Findings from Instructor Questionnaire
1. Delivery of instruction	In response to what she liked most about instructing the workshop, the instructor noted exploring the infinite possibilities of vocalized sound for healing, deepening her understanding and personal experience with sound, and being better trained to offer the same to her yoga students and chiropractic patients.
2. Workshop materials	The instructor commented that the instructor guide was well organized and easy to follow. She also noted that continuity between the guide and the PowerPoint slides were excellent, which made the entire presentation enjoyable and user friendly.
3. Instructor's presentation	In response to what she liked least about instructing the workshop, the instructor stated, "Using the Korg tuner for pitch finding...just unfamiliar and not as confident with a cappella voicing as an instructor of sound resonance."
4. Workshop activities	The instructor agreed that the activities and resources provided in the workshop aligned with the objectives of the course. She elaborated that "the correlations were clear and the students came away with a real sense of the healing effects of sound as a tonal therapy."
5. Overall workshop design	As for improvements, the instructor commented that the material is so rich and more time could have been spent with additional activities. She suggested a longer workshop such as 3 to 3 1/2 hours. This finding is consistent with the participants' recommendations for a longer workshop as indicated on the Participant Evaluation Questionnaire and from participants' remarks in the Focus group.