

APPLYING ALEXANDER TECHNIQUE IN THE
HIGH SCHOOL CHORAL REHEARSAL

by

KAREN AUGUSTA PARENT

B. Mus., The University of British Columbia, 1983
B. Ed., The University of British Columbia, 1999

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR THE DEGREE OF

MASTER OF ARTS

in

THE FACULTY OF GRADUATE STUDIES

(Music Education)

THE UNIVERSITY OF BRITISH COLUMBIA

August 2007

© Karen Augusta Parent, 2007

ABSTRACT

Developing healthy and coordinated vocal technique in adolescent singers is central to choral pedagogy. A singer's instrument is her body, and researchers of vocal pedagogy have increasingly explored the whole system's coordinated use in singing through bodymind awareness approaches such as Alexander Technique (AT). The purpose of my research was to examine the application of Alexander Technique in a high school choral setting to understand how a process of AT lessons in choral rehearsal may benefit students' vocal skills. Specifically, I investigated students' experiences of posture, breathing, and tone production through this process. I also explored how students' understanding of Alexander Technique principles evolved over the study period.

I employed an instrumental case study method to explore the vocal experiences of students in my senior concert choir for eight rehearsals over a period of six weeks. All 58 students participated in approximately twenty minutes of Alexander Technique instruction at the beginning of each rehearsal during the study period. Eight student respondents wrote weekly journals and four of these respondents participated in semi-structured individual interviews at beginning, mid, and end points of the study. I wrote observational notes on each rehearsal and on videotaped rehearsals at the beginning and end of the study. Categorical and descriptive analysis of the data formed the basis of a chronological narrative of the findings for the choir and for two students.

Through the process of Alexander Technique lessons in choral rehearsals students reported increased kinesthetic awareness and direction in their head-neck-back relationship, which allowed for a release of straining tensions in their jaw, neck, back, and abdominal areas, increased their breath capacity, and facilitated greater ease in sound production, also increasing their sensations of tonal resonance. Students' experience of benefits seemed to correspond with their level of application and understanding of Alexander principles over the six-week study. Benefits to the choir's posture and sound were most consistently evident in vocal warm-ups. Implications for choral teaching include increasing the recall of kinesthetic awareness during rehearsals and applying Alexander principles throughout the year. Cultivation of student attention to their singing habits through reflective journaling and a choral teacher's development of her own kinesthetic awareness of self-use are also suggested.

TABLE OF CONTENTS

Abstract	ii
Table of Contents	iii
List of Illustrations	v
Acknowledgements	vi
I Introduction	1
1.1 Choral education for the whole singer.....	1
1.2 Need for the study.....	3
1.3 Purpose of the study.....	3
1.4 Definition of terms.....	4
2 Review of Related Literature	6
2.1 Respiration and phonation.....	7
2.2 Tension in respiration and phonation.....	11
2.3 Posture.....	14
2.4 Somatic pedagogy.....	15
2.5 The Alexander Technique.....	16
2.6 The Alexander Technique in vocal and choral literature.....	19
2.7 Summary.....	21
3 Methodology	23
3.1 Instrumental case study.....	23
3.2 Setting.....	24
3.3 Ethics.....	26
3.4 Choice of respondents.....	26
3.5 Instructional procedures.....	27
3.6 Data collection.....	29
3.7 Analysis.....	31
3.8 Validity and reliability.....	32
4 Findings	34
4.1 The choir.....	34
4.1.1 Restoring awareness.....	34
4.1.2 "The rock blocking that whole breath".....	38
4.1.3 "So little effort".....	41
4.1.4 "Much more power and energy".....	45
4.1.5 Accumulating attention.....	48
4.1.6 "Everything is interconnected".....	54
4.2 Review and preview.....	58
4.3 Julia.....	58
4.3.1 "More energized".....	60
4.3.2 "Noticeable improvement".....	61
4.3.3 "Open up".....	62

4.3.4	"Take the time to think about your body"	64
4.3.5	Summary.....	66
4.4	Kevan.....	67
4.4.1	"Like a sculpture".....	68
4.4.2	"The note just comes".....	69
4.4.3	"A full circle".....	72
4.4.4	Summary.....	74
5	Summary.....	75
5.1	Posture.....	76
5.2	Breathing	78
5.3	Tone production	79
5.4	Understanding of Alexander Technique principles.....	80
5.5	Discussion and implications for choral teaching	81
5.5.1	From misuse to good use.....	82
5.5.2	The process of awareness	84
	References	86
	Appendices	91
	Appendix A Consent forms.....	91
	Appendix B Interview and journal questions.....	96
	Appendix C UBC research ethics approval	102

LIST OF ILLUSTRATIONS

Illustration 1.1	Monkey position: Deep.....	5
Illustration 1.2	Monkey position: Shallow	5

ACKNOWLEDGEMENTS

I would like to deeply thank Dr. Gabriella Minnes Brandes for sharing her expertise in Alexander Technique with my choral students, and for inspiring me with her passion for the freedom it brings to movement for musicians. Her participation in this project has been instrumental.

I owe grateful thanks to Dr. Scott Goble, my research supervisor, for his consistent guidance, excellent attention to detail, and positive support. Thank you also to Dr. Peter Gouzouasis and Dr. Carl Leggo, my thesis committee members, for their thoughtful reading and response.

Special thanks go to Sandra Head for her skilled contribution to this project. I am also very thankful to my colleagues in choral and voice education Rosemary Bell and Carole Davis, who generously offered instructive comments.

Thank you to the students in my choir whose contribution to and perceptive participation in their own journeys of vocal discovery through this study created new understanding in voice education for me.

Thanks to my husband, Jason Dionne, for his unwavering support and for our many hours of conversation on awareness.

1 INTRODUCTION

1.1 Choral education for the whole singer

Developing healthy and coordinated vocal technique in adolescent singers is central to choral pedagogy (Phillips, 2004; Smith & Sataloff, 2000). Foundational vocal technique involves attention to postural stance, coordination of thoracic and laryngeal muscle use for efficient management of breath and production of tone, and facilitation of resonance throughout the registers of the voice through skill building vocalises (Miller, 1986; Vennard, 1968). A singer's instrument is her body, and vocal pedagogies are increasingly addressing the importance of the whole system's coordinated use in singing through inclusive kinesthetic or bodymind approaches such as Alexander Technique (Bunch, 2004; Heirich, 2005; Hudson, 2002; Weiss, 2005), Body Mapping (Conable, 1998, 2000; Jordan, 2005; Buchanan, 2005), Feldenkrais (Nelson & Blades-Zeller, 2002), Yoga (Carman, 2004), and T'ai Chi (Rao, 2005). Healthy vocal skill development in adolescent choral voices through increased bodymind awareness is my interest, specifically how Alexander Technique lessons may facilitate this. The present study investigates how a process of Alexander Technique lessons in a high school choral rehearsal may benefit student vocal skills.

Phillips (2000) describes music education as whole-brain learning that involves a student's cognitive, psycho-motor, affective, and kinesthetic domains, and he notes that singers' "kinesthetic feeling for tone production has much to do with successful singing" (p. 222). Further, the authors of the comprehensive *Bodymind & Voice: Foundations of Voice Education* (Thurman & Welch, 2000) discuss body

alignment as the most fundamental voice skill. Jordan (1996, 2005) advocates the use of Alexander Technique for choral conductors and its related Body Mapping approach to physical awareness in the choral classroom. He states: "The incorporation of this principle profoundly changes the pedagogical depth of the warm-up process and the entire direction of the choral warm-up" (2005, p. 41).

Unnecessary tension in vocalizing is a primary concern in the development of a healthy technique (Deeter, 2005, Ohrenstein, 1999). Smith & Sataloff (2000) list four basic elements for a choral warm-up, the first of which is relaxation, followed by posture, breathing, and resonance. The use of movement to facilitate vocal skills in choral rehearsal has been previously studied (Con, 2002; Chagnon, 2001; Hibbard, 1994; Wis, 1993). Chagnon (2001) described the use of gestural metaphor and kinesthetic experience in vocal learning in the work of five choral conductors. One noted choral conductor, Rodney Eichenberger, developed movement work with choirs because of a discovery of tension in his voice and the effect on singers of tension in his body as he conducted, leading him to explore the use of movement to release choral voices from unnecessary tension (Con, 2002).

Kinesthetic awareness techniques such as Alexander Technique (AT) or Feldenkrais are systematic approaches in somatic education. These techniques foster singers' accurate perceptions of sensation and release of unnecessary tension in movement and postural habits that restrict their freedom of breathing and tone production. Literature on the connection of Alexander Technique to singing is growing, while literature exploring its application in choral work is only beginning to emerge. Jordan (2005) has applied Body Mapping, a related Alexander Technique,

in the choral warm-up, and he has described its relevance to healthy vocal development. Conable's (2000) Body Mapping primer for choirs on the structures of breathing includes illustrations to aid singers in distinguishing muscle groups involved in the dynamic sensations of coordinated technique.

1.2 Need for the study

Phillips (2004) states emphatically that choral teachers should be studying voice as part of their preparation to teach choral singing (p. 222). Smith & Sataloff (2000) advise that choral conductors should become familiar with the latest concepts around voice (p. 34). Not all choir directors address voice development, however, though its importance is clear (Swan in Decker & Herford, 1988; Collins, 1999). Vocal pedagogy is moving into a new era of bodymind awareness where today's voice teachers and choral directors must "take responsibility for developing their own kinesthetic awareness in order to guide their students effectively" (Nelson & Blades-Zeller, 2002, p. 12).

A study describing the vocal benefits experienced by choral singers as they learn to apply Alexander Technique principles in a rehearsal setting is needed to inform choral educators of the potential pedagogical benefits of such instruction for their own students.

1.3 Purpose of the Study

The purpose of this study was to examine the application of the Alexander Technique in a high school choral setting to understand how a process of AT

lessons in choral rehearsal may benefit adolescent vocal skills. My central research question was: What are students' experiences of vocal development as they progress through a process of Alexander Technique lessons? Specifically, how do students describe their experiences of posture, breathing, and tone production through this process? Also, what understanding of AT principles do students have after undergoing this process?

1.4 Definition of Terms

Alexander Technique: an educational process of bringing proprioception (see *kinesthetic awareness*) into consciousness and providing specific tools to identify and change habitual responses to stimuli

AT principles (see also Chapter 2):

1. Working Unity of the Self: no separation of mental and physical processes in activity; the use of the whole self
2. Faulty Sensory Awareness (unreliable sensory appreciation): habits of use that are often unconscious weaken the kinesthetic sense, limiting awareness
3. Use and Functioning: use has an impact on function and vice versa, habits of use affect performance or functioning
4. Inhibition (non-doing): to stop a habitual response
 - a. End-gaining: priority given to end results and not to the process of achieving them
 - b. Means-whereby: priority given to process, specifically awareness of the ways in which a task is approached and executed
5. The Primary Control: a dynamic relationship between the head-neck-back, which serves as an organizing principle
 - a. Direction: thinking in activity; linking a "mental command, a tangible physical reality, and a sensorial feedback" (De Alcantara, 1997, p.60)

The primary directions:
Let the neck be free,
To let the head go forward and up,
To let the back lengthen and widen
ALL TOGETHER, ONE AFTER THE OTHER.
(DeAlcantara, 1997, p. 160)

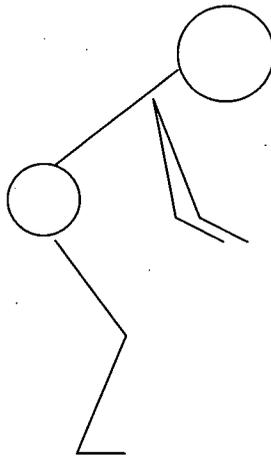
Diaphragmatic-Costal Breath Management: the conscious control of muscles that act upon the diaphragm, abdomen, and ribcage through the breath cycle

Hands-on guidance: Alexander teachers' light placement of hands on a student's neck, shoulders, and back with continuous attention to the quality of stiffness or softness in the muscles, as well as attention to the student's thinking, while guiding her or him through simple activities

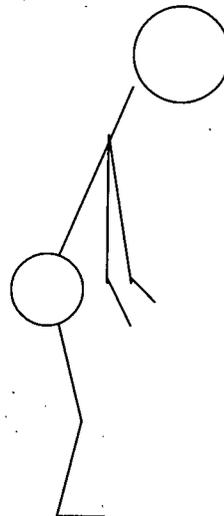
Kinesthetic awareness or proprioception: a sixth sense that monitors body position, weight, and movement of muscles, tendons, and joints

Monkey position

1.1
Deep



1.2
Shallow



2 REVIEW OF RELATED LITERATURE

Vocal sound production is a coordination of respiration (involving posture and breathing), and phonation (tone production and resonance). The literature in vocal pedagogy focuses on developing and training muscular processes, while somatic vocal education addresses the coordination of mind and body in movement. Thurman & Welch (2000) argue that mind and body have been separate in educational practice, and they passionately advocate a comprehensive voice education program based on established scientific evidence that shows we are an inseparable intermeshing of psychophysical processes: a “bodymind.” The unity of our neuropsychobiological processes “produce[s] what we refer to generally as *mind* . . . that is, perceptions, feeling states, conceptions, images, reasoning, linguistic labels and interpretative descriptions, and coordinated purposeful movements” (Thurman & Welch, 2000, p. 87). The literature connecting body and mind in somatic education for voice began with the empirical work of F. M. Alexander. Inquiring into the source of his own vocal production problems, Alexander pioneered a somatic approach known as the Alexander Technique that is a cooperation between the conscious will and the unconscious reflex (Alexander, 1932/1985). The technique is now taught internationally in music schools such as the Juilliard School of Performing Arts in New York, the Royal College of Music in London, the Royal Conservatory of Music in Toronto, and Guildhall School of Music and Drama in London. A Google search on Alexander Technique in music schools in June of 2007 netted 1,720,000 results. Much has been written on the application of the technique

for dancers, actors, instrumentalists, and singers, while publications on its relevance to choral musicians are only beginning to emerge.

Examining the application of Alexander Technique in the choral classroom seems necessary and timely. In this chapter, I will situate the concerns of this study in a review of literature related to vocal technique, beginning with literature on breathing and postural aspects of vocal sound production. I will include views on tension in singing then discuss literature on somatic education, specifically Feldenkrais and Body Mapping. Finally, I will give an introduction to F. M. Alexander, the Alexander Technique, and review literature on AT related to singing and choral pedagogy.

2.1 Respiration and phonation

A wide variety of terminology and many divergent approaches have been applied to breathing for singing (Freed, 1994; Blades-Zeller, 2002). In a survey study, Miller (1997) examined vocal pedagogies in England, France, Germany, and Italy in relation to their tonal ideals. He discovered a lack of agreement on how to approach breath management (p. 20). However, schools in all four countries identify three methods of breath support: clavicular, costal and diaphragmatic (p. 16). The German and English approaches focus on the lower trunk or upper thorax, respectively, with notions of contraction, fixing, pressing, and maintaining positions to achieve control of the breath cycle for singing. The French school employs the least overt management. The Italian school approaches breathing as an integrated system of coordination balancing sterno-costal-diaphragmatic musculature and

laryngeal configuration in the connection of breath to tone. The Italian method, *appoggio*, has had predominant influence in North American voice pedagogy and has been systematically explicated by Miller (1986, 2004). Training in the technique through physiological understanding and practical vocal exercises is the aim of his pedagogy (1986). What is taught in the private voice studio finds its way into the choral class via the teacher-conductor's experience of training in these methods.

Swan (1988) discussed the importance of developing technique in choral singers. He delineated six schools of choral singing in America, only three of which emphasize the importance of vocal exercises in warm up to develop "support and breath control" to achieve their tonal objective (p. 44). One school employs a mechanistic approach through skill drills, practicing "maximum effort from the muscles used in singing" (p. 32) and "conscious controls to loosen" the jaw and tongue (p. 50).

Smith and Sataloff (2003) have also suggested it is the conductor's responsibility to teach good concepts of vocal technique through warm up in rehearsal (p. 10). Their choral pedagogy text (2000) covers the physiology of the voice, explains the function of the brain in voice production, and gives a detailed rationale for voice building. Since the average choral singer has "little recognition of habitual speech faults, breath flow, or articulatory tensions," they have recommended warm ups for relaxation, posture, breathing, and then resonance (p. 109). "At the mere mention of breath management, untrained singers tend to tighten the abdominal muscles, lock the knees, and restrict the flow of air" (p. 116). Their

approach recognizes the need to address a “releasing” of the body and the breath rather than a “holding” orientation (p. 116).

Investigators studying breathing behavior in singers have found differing results with respect to technique and concepts of support. Griffin et al. (1995) sought to develop an objective definition of breath support based on their descriptive study of physiological characteristics of supported and unsupported singing voice. Objective measurements were compared with subjects’ concepts of supported voice. Questionnaire responses revealed that singers’ concepts of support were described only in terms of breath management and its attendant muscle activity. However, analyses of the respitrace data (which measures chest and abdomen displacement) in this study showed no significant differences between unsupported and supported breathing patterns, leading the investigators to question, “If singers are not using the mechanisms they think they are to produce a supported voice, why do voice teachers spend so much time teaching specific breathing techniques?” (p. 54). They concluded that changes in laryngeal and glottal configurations played an important role in supported voice. The pedagogical focus, however, seems to have been on training of breathing musculature.

Phillips (2004) argued that students can change their mode of breathing from high and shallow to low and deep with instruction (p. 229). The development of breathing technique and its relation to breathy voice quality was the subject of Phillips’ (1992) descriptive study. He investigated the chest-thoracic and abdominal-diaphragmatic breathing patterns and the vocal quality of fifteen-year-old girls in a high school chorus. Their teacher rehearsed them daily with instruction in vocal

technique, including abdominal-diaphragmatic breath management. Seven months into the school year, Phillips conducted his study of 40 students. A significant difference was found in favor of abdominal-diaphragmatic breathing, whereas the mean score for all subjects' vocal quality indicated a "fair" amount of breathiness. Phillips suggested these results show that though the students demonstrated proper muscle movement and posture, they were experiencing the effects of a maturational aspect of the vocal folds. This is possible, but doesn't seem conclusive. The development of tone quality is a concern in vocal learning and is relevant to the sound of a choir. High school choral directors should perhaps be including more than breath management skills in their teaching.

Results from a five and a half month experimental study of the effect of skills instruction on adolescent female voices showed that the vocal performance and breath management skills of the students improved (Fett, 1993). In each choral class of the study, a seven-to-ten minute warm up included skills instruction in "proper respiration (posture and breathing), phonation, and resonance for singing" (pp. 59-60). Vocal performance improvements included less breathiness in tone quality, increased vocal range, and longer tonal duration. Forty-five ninth-grade girls in treatment (n=24) and control (n=21) groups received a vocal warm-up in each rehearsal over 22 weeks. Three aspects of respiration and four vocal performance measures were investigated. A statistically significant difference in favor of the treatment group for two measures of breathing (abdominal displacement, vital capacity) and three measures of vocal performance (tone quality by computer analysis, pitch range, and tonal duration) were found. Interestingly, no significant

difference between groups was determined for tone quality according to an auditory perception measure. Choral teachers, however, employ auditory perception in building choral sound. This study suggests that while skills in respiration and phonation can be developed, choral directors of young singers may not hear much change in their tone quality.

While habits of muscular coordination to control the breathing cycle and phonation in singing can be formed, vocal quality may or may not be improved. Singers' concepts of support may not correspond factually with the physiological processes, specifically regarding the positioning of the larynx in phonation.

2.2 Tension in respiration and phonation

Deeter (2005) recognized the need for singers to identify and "diagnose" causes of excessive tension. "Developing an awareness of kinesthesia – the sense that detects bodily position, weight, and movement of the muscles, tendons, and joints – is important in assuming a balanced, tension-free instrument" (p. 29). She observed that muscle compensation and overuse in the neck, abdomen, and back can create hoarseness, breathiness in tone, loss of focus, pain while singing, or inability to sing long phrases.

Ohrenstein (1999) observed in her experience of singing and that of her students that subtleties of movement can elude perception:

Over time, with many repetitions of these same muscular patterns, the singer is no longer aware of them. The tension involved is not perceived, but rather the effortful proprioceptive muscular feedback is associated with the singer's concept of 'good' and 'correct' singing. In fact, however, the muscles are gradually becoming more stiff, losing their flexibility and independence of motion" (p. 24).

Through a process of Alexander Technique and Feldenkrais, Ohrenstein developed new awareness and healthier vocal coordinations.

Habitual movements can induce detrimental tension in vocalizing. The muscular and vocal coordination we strive to teach choral singers may contribute to unnecessary tensions. The breath pressure concept of vocal support, Reid (1983) contends, can create unnecessary tensions, and “effortful, rather than natural, free vocalization” (p. 41). G.B. Lamperti (1840-1910) advises the singer to “release the compressed breath to start your tone, do not push or pull muscularly” (Brown, 1973, p. 46). The release of “expiratory tension (not by muscular effort, but by letting breath release itself)” is fundamental to healthy vocal ecology, growing into an experience of singing based on stimulation of natural reflexes rather than practicing learned responses (Reid, 1992, p. 167). Training, in this holistic sense, is not to gain control over the breathing muscles, but to “free these systems so that they respond to the dynamics of an environment” (Reid, 1992, p.193). An appropriate and efficient use of the muscles is an aim of the Alexander Technique.

Drawing from Reid (1982), Alexander Technique, theology, psychology, music therapy literature, and bodywork to understand vocal experiences, Dosso (2004) examined breathing for singing holistically. Dosso’s case study explored a therapeutic process of freeing the voice through connection to one’s breath in singing. The vocal experiences of the subject, her master class students, and the author involved varying degrees of vocal tension. Thematic analysis revealed that shame was a strong force of resistance to breath and body awareness and that breath release was instrumental in counteracting tension (p. 266). “The way we

breathe influences how we feel, and what we feel has a direct effect on how we breathe” (Austin, 2001, quoted in Dosso, p. 133). Dosso concluded that freedom in vocal technique was adversely affected by habits of “holding” breath and distrust of self and/or voice teacher.

Acquired habits of mind and muscle can inhibit the instinctual connection of emotion and breath from which the voice draws basic energy, according to Linklater (1976). “As long as we are emotionally protective, our breathing cannot be free. As long as breath is not free, the voice will depend on compensating strength in the throat and mouth muscles” (p. 12). Her injunction to “observe without controlling” (p. 25) and to allow sensitive involuntary processes to take over is influenced by her experience with Alexander Technique principles (p.4).

Movement in choral singing has been used to address tension in vocal production, to improve vocal coordination, and to enhance musicality. Chagnon’s (2001) collective case study reported on the movement methodologies of five choral conductors. Chagnon observed the work of three conductors and examined the previous studies of Wis (1993) and Hibbard (1994) on the kinetic work of two choral conductors. Chagnon compared findings and created a database of movements. One methodology for movement addressed the development of vocal skills, including breath management, posture, breath energy, releasing of body tension, and enhancing of vocal freedom. Movements while singing were employed such as circling hands and arms, throwing and tossing gestures, lifting arms, pressing forearms, hooking fingers, shaking legs/hips, running on the spot, and shoulder chops. Such activities were used to establish a felt, kinesthetic memory of the vocal

concept being taught. Choice of movement was made on the basis of the conductor's auditory perception of vocal production problems in the sound. Five of six singers interviewed at one site believed these movements helped their singing technique and awareness. One expressed the view that "singing can't be a passive act, and movement reinforces good breathing," and another student observed, "movement makes me really have to be present" (p. 40). Gesture and whole body movement were found to modify musical elements, improve vocal and ensemble skills, and heighten concentration. One of the most commonly used movements in the work of one conductor was "circles" in which singers make circular hand movements at the belt line, in toward the center of the body, and up. This was found to create "solid breath support" and to "connect the breathing apparatus to the vocal mechanism" (Con, 2002, p. 55). This is possibly due to an increased engagement of the muscles of the torso and the image of breath movement in the circling gesture. Kinesthetic experiences and awareness for singers enhance voice skills and can serve in the development of healthier vocalizing.

2.3 Posture

In *The Functional Unity of the Singing Voice*, Doscher (1994) states: "Posture, breathing, and phonation form a complex system of balancing mechanisms. Posture, though, determines all subsequent muscular action" (p. 57). Richard Miller describes the postural stance for singing as striving to "maintain the inhalatory pose" as in the Italian *appoggio* technique tradition (1986), or as "axial" and "noble" (2004). Vennard (1968) advises the singer to assume a statuesque

stance with chest high and head erect. Phillips (2004) lists seven characteristics of good posture from the feet to the head with directives such as tuck, stretch, back and down, elevate, and “hold high and level,” to create an alert and aware state (p.223-224).

Postural concepts are rooted in notions of rigidity and fixedness, suggests Thurman (2000), that are injurious to instrumentalists and singers. The Latin root of the word is *positura* meaning formation, from *positum* meaning to put, place, set, fix, stake, or post. Postural expressions reflecting this static notion (“Keep your shoulders...,” “Stand up straight,” “Hold your...”) could actually induce significant inefficiencies (p. 337). Habitual “protective reactions” and “emotional-state bodymind programs” also create constricting postures that require re-orienting (2000, p. 334). How a choral educator addresses posture is of vital relevance to vocal skill development in her students.

2.4 Somatic Pedagogy

The application of somatic education to choral pedagogy is beginning to appear in the literature. Nelson and Blades-Zeller (2002) explicate the Feldenkrais Method and give practical directions in modules suitable for choral ensemble rehearsal. The Feldenkrais Method uses the body’s neurological language, developing kinesthetic awareness through a focus on the “how-to” of movements by clarifying functions and discovering better ways to perform. This discovery involves the “part of the nervous system that controls movement, as opposed to conceptual consciousness or ‘thinking’” (Nelson & Blades-Zeller, 2002, p. 3). They also suggest

that directive descriptions of technique (e.g., "Lift your soft palate!") result in conscious muscular effort and tension. Effortful habits, such as when we "tighten up" to achieve difficult tasks, create excess tension (p. 21). The interconnectedness of the nervous system is such that "tension anywhere is in a sense tension everywhere" (p. 20). Movements are optimally performed when a singer "allows" or practices "passive control" rather than the extra effort of active control.

Barbara Conable (1998, 2000) has applied Alexander Technique principles to the practice of Body Mapping or "one's self-representation in one's own brain" for instrumentalists and singers (1998, p. 1). Buchanan (2005) describes Body Mapping as a self-inquiry method that advocates freedom of movement through accurate mind-body connections, resulting in poised and balanced body usage. Conable (2000) suggests that the "profound embodiment" developed through Body Mapping also influences ensemble technique, and that choral conductors who have helped their singers gain full body awareness as they sing are "surprised and delighted by the terrific difference embodiment makes in the quality of the singing" (p.14).

2.5 The Alexander Technique

Frederick Matthias Alexander (1869-1955) was a pioneer in the field of somatic education. Nine years of experimentation and self-observation led to discoveries about his physical, intellectual, and emotional self, published in four books and developed into several principles regarding the "use of the self." De Alcantara (1997) states that the "use of your voice reflects the use of your whole

self: it reflects who you are" (p. 12). Alexander observed how he "used himself" and established what is known as the Alexander Technique (AT).

First, F. M. Alexander understood the "self" as a working unity, and found in his teaching that "it is possible during a course of lessons to demonstrate to the pupil how the mental and physical work together in the use of the self in all activity" (Alexander, 1932/1985, p. 22). The term "use" applied not to the use of any specific part of the body but more comprehensively to the working of the organism in general. "Use" included "conception or understanding, withholding or giving consent, thinking, reasoning, directing," because "the manifestations of such activities cannot be dissociated from the use of the mechanisms and the associated functioning of the organism" (Alexander, 1932/1985, p. 53).

Second, Alexander discovered that habitual ways of doing things deaden our kinesthetic sense, eventually limiting our sensory awareness (Heirich, 2005). Through meticulous observation he discovered that his vocal misuse began with his response to the stimulus to recite as an actor, and that his habit was to pull his head back, depress his larynx, and suck in breath through his mouth producing a gasp, which eventuated in his problem with chronic hoarseness. His habit actually felt right, but was inefficient. This faulty sensory awareness required re-educating. Observing himself through the use of a three-way mirror, Alexander discovered that what felt "natural" to him was not tension-free and was just what he had become familiar with. This informs his second principle: Our sensory awareness is impeded by chronic tension, and it is unreliable.

A third principle Alexander established is that habits of use affect functioning, or performance. Recognizing the force of habit is required, as is avoiding “mechanical repetition” (Weiss, 2005, p. 38). Further experimentation and observation showed Alexander that “it proved possible to bring about a conscious control of my reaction through a change in the direction of my use” (Alexander, 1932/1985, p. 51).

A fourth Alexander principle involves inhibition or “non-doing.” This is an active process of refraining from reacting in a habitual way in order to make a more conscious choice of action, and to develop a “true awareness and sensitivity that mechanical exercises would prevent” (Weiss, 2005, p. 43). An important attitude in the technique is that process must take priority over end results, relinquishing the “end-gaining” orientation taught by our education systems and our general culture (Heirich, 2005, p. 9). The development of a refined awareness depends on this inner state of non-doing, and on an ability to “listen” and “see” inside the body (Carrington, 1997, quoted in Weiss, 2005, p. 53).

Primary control is a fifth Alexander principle, and it refers to the relationship between the head, neck, and back that is central to the dynamic, balanced working of the human organism. The primary relationship between head, neck, and back begins with a tension free balancing of the head on the tip of the spine, as one thinks the directions, “free the neck to let the head go forward and up so that the back may lengthen and widen.” Directing is a process of thinking in activity. Secondary directions deal with the relationship of extremities to the torso and to each other. “The singer must not *do* these directions, but he has to *actively think* them, resulting

in what other body-mind techniques would call energy or flow," states Weiss (2005, p. 74). The primary control is not to be achieved by muscular effort but by attending to the process of use, and by allowing the directions to take place. Attention to the process, inhibition of habitual responses, and direction were the "means-whereby" one could develop efficient, released use, and maximize vocal potential. This is in contrast to the end-gaining orientation in which Alexander discovered that his habitual patterns dominated when he focused solely on achieving a vocal performance. Alexander believed that knowledge of these principles of use would be "of inestimable value in all educational work" (Alexander, 1932/1985, p.51).

2.6 Alexander Technique in Vocal and Choral Literature

Alexander Technique has been applied increasingly to the teaching of singing (Hudson, 2002). F. M. Alexander believed all aspects of being were integrally bound up with breathing and that through "released coordination" throughout the body and "expanded field of attention," the breathing mechanism could be freed (Hudson, 2002, p. 107). Heirich's (2005) rationale for employing Alexander Technique in her pedagogy is twofold. The neck-head poise on the spine facilitated by the technique directly affects laryngeal functioning. Further, the overall poise developed in the technique is essential for optimal diaphragm, lung, and rib muscle action (p. 78). She invites singers to observe their breathing and neck activity during thinking and movement for signs of holding and tensing habits. Heirich's use of explorations and games in teaching voice through Alexander Technique principles is integrated with a *bel canto* technical foundation to build healthy vocal technique (p. 14).

Two case studies reveal the positive impact of Alexander Technique on the vocal production of singers. Lloyd (1988) conducted a case study of five singers undertaking a course of thirty Alexander Technique lessons, beginning with a pilot study of her own experience of the technique and its effects on her physical profile, breathing, and sound. She gathered data on her subjects before and after the course on their physical profiles in standing and sitting, in general observations during the course, and through detailed description of the subjects' breathing and sound. Conclusions were that changes in self-use habits contributed to increased rib flexibility during respiration, a release of back and abdominal tensions, increased breath capacity, and new sensations in resonance (p. 123). For a singer to establish the response of 'inhibition' and to allow a release of ingrained habits, Lloyd found that no standard course of lessons could be recommended because "this stage is reached by different people at different speeds" (p.142). Lloyd suggests that the measurement results are "merely an indication that habitual tensions in singers' daily and performing body use can be released and that conscious control can be put to increasingly successful use in the acquisition of singing technique" (p. 95).

Macdonald (1997) conducted a case study of three actors in a process of ten Alexander Technique lessons, exploring the relationship between improvements in sensory appreciation and respiratory and vocal functioning, and the performance of Shakespearean text. Sensory appreciation is described as "an organized awareness of the relationship between upright posture and vocal efficiency" and the "ability to discriminate between what muscular effort is necessary, and what is inappropriate and best left to involuntary control" (p. 29). Findings included an increased intercostal elasticity, an extended range of tones,

improved resonance in voice range and quality, and increased emotional and dynamic access (p. 94-95). In all three cases, Macdonald observed a strong association between a low standard of sensory appreciation, poor posture, and vocal functioning (p. 96). He concluded that an understanding of the relationship between use and functioning is essential for voice teachers, since tensions in respiratory and vocal mechanisms are often compensations for postural and muscular inefficiencies elsewhere. "Restricted breathing, a tight jaw, a stiff tongue, a tight throat cannot be treated in isolation but must be considered in the context that use of the whole body has upon functioning" (pp. 108-109).

In *Evoking Sound: The Choral Warm Up* (2005), Jordan lists fourteen "cardinal rules" for a choral pedagogy. The top three address muscular rigidity, realigning the body through Body Mapping principles, and creating inclusive and inner awareness. The application of Body Mapping principles allows for the "unlocking of all other aspects of vocal technique," and Jordan sees this as the most important aspect of choral ensemble pedagogy (p. 10). Jordan asserts that "the development of the kinesthetic and aural senses are the most important to learn and recall vocal technique and the lack of incorporating these is a shortcoming in choral pedagogy" (p. 12).

2.7 Summary

The research literature on vocal sound production indicates that skills in respiration, phonation, and posture for singing can be formed into habits through instruction and that those skills are important components of vocal pedagogy. The literature further reveals that pedagogy addressing coordination of specific muscle

systems is significantly enhanced by somatic approaches that integrate mind and body, develop sensory or kinesthetic awareness, and facilitate the release of unnecessary tensions. Researchers have demonstrated that the implementation of the Alexander Technique seems to improve vocal skills for actors and singers. A study of the application of AT in a choral setting has not been undertaken. The following empirical investigation of high school choral singers' experiences of vocal technique development over a course of Alexander Technique lessons will contribute to the literature in choral pedagogy. This investigation is necessary to inform choral educators of the potential pedagogical benefits of the mind-body processes of Alexander Technique on the healthy development of vocal skills in their students.

3 METHODOLOGY

This study focused on how a process of Alexander Technique (AT) lessons in a high school choral rehearsal might benefit student vocal skills. Specifically, the research explored what beneficial experiences of posture, breathing, and tone production choral students might have during an introductory unit of Alexander Technique lessons. To understand the effect of Alexander Technique training on the vocal skills of adolescent singers, I wanted to describe and interpret participants' views of their vocal experience during AT instruction. A qualitative research methodology allowed me a holistic, empirical, descriptive, interpretive, and empathic approach to my topic, through which I could aim to "construct a clearer experiential memory" and "help people obtain a more sophisticated account of things" (Bresler & Stake, 2006, p. 273, 278-279). A qualitative study seeks to "discover and understand a phenomenon, a process, or the perspectives and worldviews of the people involved" (Merriam, 1998, p. 11). Discovering what vocal changes students experience during Alexander Technique lessons necessitated a qualitative research approach.

3.1 Instrumental case study

To construct an understanding of students' experience of change in their vocal sound production through Alexander Technique, I chose to use an instrumental case study method. A case study is an empirical inquiry that "investigates a contemporary phenomenon within its real-life context" (Yin, 2003, p. 13). A case is a bounded, integrated system (such as a choir), and it is considered

instrumental when examined “mainly to provide insight into an issue or to redraw a generalization” (Stake, p. 437, 2000). This research explored the vocal development experiences of a high school choir learning the Alexander Technique principles in the context of choral rehearsals.

3.2 Setting

Site selection began with searching for choral directors who employ Alexander Technique in their rehearsals. Twelve conversations with choral and voice educators led me to identify five directors who used kinesthetically oriented instructional approaches with their choirs. One choral director I talked with who works on Vancouver Island is also a bodymind acupressure therapist, and she integrates these techniques into her vocal warm up. Another educator, currently teaching in Statesboro, Georgia, USA, has taken Alexander Technique lessons, and employs Taoist principles and movement in his work. Neither of these sites was possible to observe for reasons of time and expense. Exploratory observation of three sites in Vancouver and North Vancouver revealed the use of a collection of non-verbal gestures and movements for musical and choral sound concerns. I ruled out studying these sites as my interest focused more particularly on bodymind awareness techniques and the explicit application of these, specifically Alexander Technique, to healthy voice development.

Conducting a study of the process of Alexander Technique lessons in one of my own choir classes was the next possible approach, with the involvement of Gabriella Minnes Brandes, Ph.D., as the Alexander Technique instructor, and myself

as choral teacher. Dr. Minnes Brandes is a certified practitioner who teaches at the Alexander Technique Center in Vancouver and is the co-director of the Vancouver School of the Alexander Technique, a three-year, certified teacher-training program. She has worked with singers and musicians. I contacted Dr. Minnes Brandes after discussing the Technique with voice teacher Sandra Head (1996), with whom Dr. Minnes Brandes has worked. In order to experience and understand the technique myself, I engaged in a series of eight private lessons with Dr. Minnes Brandes prior to the study.

Members of the senior concert choir class who served as participants in the study met in a large, multi-ethnic, middle class, urban high school in Vancouver, British Columbia. The study took place in the spring of 2007. The school culture was highly academic, with International Baccalaureate and French Immersion programs attracting students from across the city. The choral program consisted of junior (grades 8-9) and senior (grades 10-12) groups that were inclusive of all vocal skill levels. There were no feeder school programs, and many of the singers had their first experience of choral singing at the senior level in the program. There were 58 participants in the senior choir during the research, ranging in age from fifteen to eighteen years, with 17 males and 41 females. Twenty students had participated in the choral program for two to four years, while the majority of students were in their first year. The senior choir that served as the case in this study met after school twice a week for 75 minutes. Rehearsals took place on choral risers, with some activities occurring throughout the classroom space.

3.3 Ethics

To ensure that my study would follow ethical guidelines I submitted my research proposal to the Behavioural Research Ethics Board at the University of British Columbia and received approval (see Appendix C). I designed consent forms for all participants/respondents and parent/guardians of students and received their consent (see Appendix A). I received approval also from the Vancouver School Board, and from the administration of the school at which the study took place. The identities of all the participants were kept confidential at all points during the study. Pseudonyms were used and other identifying information was altered to protect the identities and privacy of all involved. Observation notes, journal documents, video and interview data were coded to ensure confidentiality. Digitally recorded data, documents, and videotaped data will be kept in a locked file at UBC for five years, after which time the data will be destroyed.

3.4 Choice of respondents

A good respondent is "one who understands the culture but is also able to reflect on it and articulate for the researcher what is going on" (Merriam, 1998, p. 85). Nine students volunteered as respondents, forming a purposive sample of students who had been in the choral program for at least two years, who demonstrated a keen interest in and enjoyment of singing, and who had time availability for interviews and journal writing. Of the nine who initially volunteered, eight completed the study as respondents: Kathryn, Lisa, Julia, Jillian, Anna, Allan, David, and Kevan. (Respondents' identities are protected by pseudonyms.) All

eight respondents in the sample wrote weekly journals reflecting on the lessons. Four of the respondents provided further reflection in individual interviews at beginning, mid, and end points of the study. I selected respondents to interview by random draw from the soprano and alto volunteers. Only one tenor had volunteered, and I chose the baritone interviewee based on length of time in the program.

The experiences of Julia, a tenth grade student, and Kevan, an eleventh grade student, are detailed in the Chapter Four, and their accounts provide individual views on how the process of AT lessons was beneficial to the vocal development of students in this high school choir. I chose Julia and Kevan based on the perceptiveness they demonstrated concerning their past and present vocal experiences, the openness they had to new experience and exploration, and the consistency of responses they articulated that gave insight into the best possible benefits of the AT lesson process. Julia was also a more experienced singer than Kevan, which provided a contrasting view on how AT lessons benefited the vocal skills of students at different levels.

3.5 Instructional procedures: The Alexander Technique lessons

During the six-week research period, Dr. Gabriella Minnes Brandes taught seven Alexander Technique lessons with the choir during the regular program schedule of choral rehearsals twice per week. There were interruptions to the schedule of classes due to two statutory holidays and one other non-instructional day, which resulted in a total of eight sessions over six weeks. The eighth session

was led by private voice teacher Ms. Sandra Head, who had studied Alexander Technique since 1994 with Dr. Minnes Brandes, and who completed a master's project on how it informed her teaching of singing (Head, 1996). After reading Ms. Head's work, consulting Dr. Minnes Brandes, and experiencing a private voice lesson with Ms. Head, I decided in collaboration with Dr. Minnes Brandes on a change in research procedures to include Ms. Head in the final session of the study as an integrative experience of vocal technique and Alexander principles for the choir.

Classes began with approximately twenty minutes of Alexander Technique instruction and discussion with Dr. Gabriella Minnes Brandes, followed by a vocal warm up which applied some of the Alexander principles, and they were concluded with rehearsal of repertoire. Lessons included explanation and class discussion of AT principles and directions, directed group experience, student observations of their own and others' experience, and individual hands-on guidance with the sample of respondents as well as with random students in the choir. The mini-lessons in Alexander Technique drew students' attention to habitual ways of preparing to use the voice and sing, in particular the relationship of each student's respective head, neck, and back in movement. Students were led to explore alternative options to habitual responses through everyday movements such as sitting, standing, walking, and using their voices.

3.6 Data collection

Comprehensive and multiple views of the AT experience in this study were provided by students' weekly reflective journal responses to questions, three semi-structured individual interviews, my observational notes of rehearsals, and two videotaped classes.

My stance during the study was that of "participant-observer," wherein my observer activities, known to the choir, were subordinate to my role as a choral teacher (Merriam, 1998, p. 101). I adopted my role as observer primarily during the Alexander Technique lesson portion of the rehearsal, and did not participate in the AT instruction. For the remainder of the rehearsal I participated as choral director. Yin (2003) warns of a potential problem with this dual role since participation may not allow "sufficient time to take notes or to raise questions about events from different perspectives, as a good observer might" (p. 96). This was indeed a challenge for me when a part of the AT lesson coincided with the vocal warm up that I led. My attention felt divided. Stake's (1995) suggestion to write up the observation "while it is fresh" and "let the occasion tell its story" was my strategy for addressing role imbalance. I made brief notes during rehearsals, and afterward wrote a full narrative of the events of every rehearsal, including my questions, impressions, and specific participant responses, for the duration of the study.

In weekly journals, the sample of eight respondents answered questions about their thoughts and sensations during the experience of the Alexander Technique lessons, and they described their subsequent process of vocalizing in rehearsal (see Appendix B). I formulated questions each week on posture,

breathing, and tone production in accordance with the AT principles being discussed, the events of the AT lessons, and in response to the students' developing understanding as demonstrated each week in the journals, in class, and in interviews.

Semi-structured, one hour interviews with four respondents were conducted outside of class time at the beginning, mid, and end points of the research period to gain multiple perspectives, and to "aggregate perceptions" (Stake, 1995, p. 65). Interviews were digitally recorded with the consent of the participants, and transcribed by myself. Interview questions were developed progressively, based on students' emerging understanding of AT over the course of the study, and in response to events of the AT lessons and the respondents' experiences of breathing, posture, and tone production. A pilot testing of interview questions on breathing, posture, and tone production was conducted prior to the study with two student singers from outside the participating choral class. Through these pilot interviews I determined that some questions were not useful and others needed to be added.

I gleaned observations from videotaped rehearsals at the beginning and end of the study for "aggregative interpretation" (Stake, 1995, p. 55). One camera, operated by a student outside the choral program, was focused on the choir for the duration of each of the two rehearsals. Video data included observations of student implementation of the Alexander Technique over the course of two different rehearsals and at the end of the study, and it was used to check data on posture,

breathing, and tone production gathered throughout the study from sampled respondents.

3.7 Analysis

I applied two levels of analysis to the data: descriptive and categorical (Merriam, 1998, p. 179). For instrumental case studies the need for categorical data and measurement is greater (Stake, 1995, p. 77). Categories of the concepts that were reflective of the purpose of the project were constructed. The three vocal skill concepts observed for in this study formed the categories of posture, breathing, and tone production. Additionally, a fourth category was constructed of participant understanding of Alexander Technique principles. Weekly journals and respondent interviews were colour coded according to each construct and condensed. Over multiple readings, I made refinements in the assignment of data to each category. For each category I analyzed individual respondents, then analyzed across the eight journal respondents, summarizing their responses. I also analyzed the four interviewees individually for each category and for each of their three interviews, and I summarized the responses individually and collectively for the total of twelve interviews.

Descriptive analysis involved summarizing the data and making linkages. I kept a personal research log maintaining a calendar of project events, observation memos, and notes. After rehearsals I highlighted pertinent and recurring observations, underlined student statements, wrote my impressions and questions, and made planning notes for subsequent sessions. I then typed a full version of field

notes close to the “raw” events, but which became “partly cooked” as I wrote and re-wrote (LeCompte & Schensul, 1999).

3.8 Validity and reliability

To arrive at insights and conclusions that would “ring true” for readers of this study, I adopted several strategies. To strengthen credibility and reliability, triangulation of data was sought through the multiple methods of observation, interview, and document review to confirm emerging interpretations and findings (Stake, 1995). I submitted copies of the initial analysis of each interview to the respondents to check that I had accurately portrayed their experiences. Throughout the study I continued these checks with respondents.

In meetings and email conversations I sought feedback from private voice and secondary school choral teaching colleagues, who both do and do not have previous experience of the Alexander Technique, to discuss my findings, to help me identify my biases, and to question my conclusions. My high school choral teaching colleague saw similarities with her own choral teaching practice through the descriptions I gave. Though she felt that the findings for Julia were less focused on specific learning, she expressed that the findings for the choir, and for Kevan in particular, encouraged her that more could be done to develop vocal technique in her own work with adolescent singers of different cultural backgrounds. The private voice instructor saw an interesting relevance to her teaching practice in the study’s findings around increased awareness and release of abdominal effort in the breathing cycle.

To enhance the transferability of what was learned in this particular case, and to assist the reader in making “naturalistic generalizations” (Stake, 1995, p.87), I give (in Chapter Four) an account of events with rich description. I provide familiar description of choral class routine, raw data of students’ verbal and written descriptions of their experiences, triangulated with my own observations, for a description that is intended to provide the reader with vicarious experience. I also provide description of the choral class demographics and context in the school community, so that readers can make comparisons with their own situations (Merriam, 1998).

4 FINDINGS

The vocal experiences of choral students through the six-week process of Alexander Technique lessons in rehearsals will be described primarily through the voices of the respondents and my own field notes. In this chapter, I present a week-by-week account of the events of Alexander Technique instruction in my choral class. Student journal and interview responses to the process of AT lessons are introduced and discussed. As section headings for each week, I have chosen phrases from student writing and class discussion. These reflect the choir's development of understanding, the significant experiences of some students, and pertinent Alexander principles.

To provide further perspectives on how student understanding and use evolved, the individual experiences of Julia, a tenth grade singer, and Kevan, an eleventh grade singer, who were respondents in this study, will also be detailed following the description of the choir as a whole.

4.1 The Choir

4.1.1 Restoring awareness

"Does the Alexander Technique teach us something new that will change us or does it restore something?" asked Max, a keen baritone who stood in the front row of the choir. The singer behind him remembered seeing a toddler's poise on a trampoline in the video the choir viewed during the first week, and he suggested that the Technique was about "restoring something." Educational philosopher John Dewey, in his introduction to Alexander's *The Use of the Self*, stated that Alexander

made his discoveries through a procedure of self-observations that met "all the requirements of the strictest scientific method" (Alexander, 1932/1985, p. 7).

Commenting further on how Alexander's work contributed to understanding conditioned reflex and habit, Dewey wrote:

The discovery of a central control which conditions all other reactions brings the conditioning factor under conscious direction, and enables the individual through his own coordinated activities to take possession of his own potentialities. It converts the fact of conditioned reflexes from a principle of external enslavement into a means of vital freedom. (pp. 11-12)

Alexander said his work of re-educating habitual usage to natural conditions of functioning; meaning "being in accordance with nature" (*Webster's*) was "not a process of adding something but of restoring something" (Alexander, 1941, quoted in De Alcantara, 1997, p. 272).

To develop awareness of their habitual reactions, the choir students were invited to recognize and observe their own habitual responses as well as those of their peers. The study began with an exploration of response to the often-heard command to sit or stand straight, of response in the body when shifting weight and finding balance on the feet, and of the response in body and breath to the thought of singing. Students were asked to notice what they feel and do. Students reported tightness in their backs. Dr. Minnes Brandes directed students to walk while imagining singing a song, and students noted changes in their breathing and in the backs of their necks. As students stood around the floor, Dr. Minnes Brandes invited them to observe whether anything happened as their weight shifted from toes to heels to sides of the feet. Several students noticed movement of their heads forward or back, and tightening in their backs. Dr. Minnes Brandes explained that

awareness facilitates choice for a more efficient use of our selves as instruments, and the AT principle of the primary control was introduced as the singers were directed to pay attention to the relationships between their heads, necks, and backs as an organizing principle. To guide their understanding in the first week the students saw overhead transparencies, and observed others in a video that introduced AT with a focus on primary directions to free the neck, to let the head go forward and up, to allow the back lengthen and widen. Dr. Minnes Brandes invited the choir to “feel the full support of the floor” and to attend to their weight shifts as “homework” for the following week.

After the Alexander lesson students assembled on the risers, and I encouraged singers to simply “think up!” as we usually did in vocal warm ups: Previous to the study, students in the choir had been instructed to stand, think tall with feet shoulder width apart, to loosen the knees, to relax the shoulders, and not to collapse the chest. During breathing and vocalizing I asked students to use their hands to attend to the neck, jaw, ribs, placing a hand on these while singing, checking for tension or movement. I conducted activities at a quick pace for management efficiency, and I wondered how this constrained student self-attention by not allowing much time for response.

Student journals revealed some confusion, much effort, and budding awareness. Jillian, a quiet and attentive alto, noted that she “tried to keep” her “back straight and head leveled,” but it “took a lot of effort.” “After a while,” she reported, her “back and the area around the neck felt sore.” Allan, who had been in choir for a year, described his response to the Alexander direction to let the head go forward

and up. "I tried to stick my head up, but it would be too far up or too far forward." The students thought more about their posture and began to notice their particular habits of head-neck use in daily activities such as eating, computer work, and driving. Allan at first thought the Alexander lessons were "a waste of time," then decided that the technique involved a "delicate balance." He noticed in his singing that at the end of breath he pushed "really hard to try to last longer" and, "I cram my head back, like they displayed on the video." David, a tenor, wrote of his difficulty with habitual tenseness, and tried to "adjust" his "body positioning" according to the Alexander Technique but remarked, "I do not feel a lot of difference because it feels forced." However, "easier" was how two students described their singing in rehearsal during the initial lessons, and Kevan wrote that during the lessons he felt "more calm and loose."

I introduced new repertoire after the warm up, again at a quick pace. I observed lagging attention, evidenced in sagging heads and side slumped postures as heads were down into the music. I realized I did not revisit the concepts or "up" attention at all as we dug into repertoire work. I didn't stop to reflect. There was a drivenness to accomplish tasks within the shortness of the time frame and to maintain student attention. Singing free of paper in hand facilitated student attention to use in warm up. During a memorized chant that we did in unison and in canon, I heard the classroom buzz with the resonance of the choir's sound.

4.1.2 "The rock blocking that whole breath"

Alexander, known as 'the breathing man' early in his career, considered breathing to be "an effect, not a cause," a function of use, so that it was outside direct control (De Alcantara, 1997, p. 91). Common breathing habits such as "trying to take a big, deep breath" are seen as symptomatic of poorly coordinated use. Alexander's view of breathing is as a function "which will perform itself" in the context of a "coordinated use of the psycho-physical mechanism" (Alexander, 1910, quoted in De Alcantara, 1997, p. 95). Changes in awareness of tension habits and breathing occurred for some singers in the choir in the second week of the study as they applied and experienced the AT directions while standing and singing.

During the vocal warm up, random students received hands-on guidance. Sitting at the piano to lead the warm up exercises, I asked the choir to spread out on the floor as Dr. Minnes Brandes moved among them and applied brief hands-on guidance to the head-neck-back of several students as they sang, directing their attention to different body parts, their balance, support, and posture. At the end of warm up student responses affirmed differences that this guidance made in their stature and breathing. Jay, a new singer in the choir, remarked that his breath flowed more directly, or better, as he was "elongated." Jillian, who exerted much effort on her own in the previous week, said that her body felt "relaxed" though straight as Dr. Minnes Brandes directed her head-neck-back. She wrote:

Dr. Gabby put her hands around my back and lifted my hipbone area. I felt that more air was coming out of my mouth. It felt as if the rock blocking that whole breath of air has been lifted, and the gush of air simply released itself. It felt really great. I had more breath and the sound came out brighter and louder while we were doing the warm-up. During the rehearsal, I felt it was easier for me to sing without taking as

much breath as I did before . . . The strain I had last week was lessened or maybe I did not pay as much attention to it.

Students who applied on their own what they saw and heard felt the “opening” of a “pathway” in the “throat” that yielded “louder tone” or more vibration. Kathryn, a more experienced singer, discovered her tendency to stick her neck out as she went up a scale, but she felt that by “keeping my neck straight and slightly lifting my head up my voice was able to project more easily.” She noticed less tension in her larynx and found singing longer phrases “easier.” David, the “tense” tenor, watched the others and responded with what he felt was a “lighter and more ‘up’” posture in his body, and he identified that when he thought too much about his back it stiffened and became “rigid.” Rick, also new to the choir, commented that the guidance he received “made me go upwards,” and that the hands-on his ribs straightened his head–neck and he “felt taller.” Allan noticed less tension in his upper back and neck as he attended on his own to standing “taller.”

In response to the homework Dr. Minnes Brandes assigned in the first week, students reported awareness of how weight shift changed their place of support, and of how bending the knees and straightening the back allowed more breath. Students also became aware of tension during breathing and singing. Anna, who was aware of her breathy tone, said, “When I inhale the back of my neck slowly gains tension.” She felt that “there wasn’t as much blockage in the throat and the voice box” as she “tried to straighten,” and that her tone improved when she didn’t bend her neck to “try to look at the music.”

During the rest of rehearsal my attention never rested long on any one person as I attended to the pace and order of tasks. I rehearsed the choir on the first piece

from memory on the floor in concentric circles, as per the text of the lively traditional spiritual being prepared for a choral festival performance the following week. I noticed Anna and Kevan singing with greater projection in their solos, Julia singing very attentively, while David steadily maintained an erect posture. Focus on multiple tasks challenged some singers, including Kevan, who thought that there were “too many things going on that distracted” his “attention [from] head/neck posture.” I observed that students’ attention to body use while singing during rehearsal became intermittent, or it disappeared altogether as concentration went to the repertoire, particularly with music folders in hand.

I felt some concern in this session that student understanding wasn’t building from the previous week and that they needed a fresh explanation of principles. David had asked in his first interview if AT was just about posture, if “that was all there was to it,” with “what benefit,” and so I wondered if there was a short attention span for the process of developing an awareness of use. I wondered about students’ immediate need to know or see results, their effort of “trying” to achieve a better use, and the effect of concentration on awareness. Did giving the “terms” of the technique, the pedagogical “spelling out” of it, create or perpetuate the very end-gaining orientation that Alexander identified as detrimental? The intention of singers at this point was to “try to straighten the body” and to “maintain a straight neck,” both of which indicated an end-gaining orientation.

4.1.3 "So little effort"

The Alexander Technique develops the appropriate use of tensions in movement. De Alcantara argues that there are "no right positions, only right directions," and that a good use of the self entails "right tension" (De Alcantara, 1997, p.16). Voice teacher Jane Heirich suggests that one of the ways singers interfere with good use is by trying too much or too little.

Many people tend to equate upright poise with effort rather than balance, with work rather than ease. Likewise, they tend to equate "relax" with a downward collapse of everything. We need to re-examine our pre-conceptions about what is necessary for a poised speaker/singer to make a healthy sound. (Heirich, 2005, pp. 63-64)

Students observed a significant difference in the amount of exertion required in their movement as they worked with Dr. Minnes Brandes in the third week of the study, gaining a slowly growing understanding of "necessary tension."

The fourth session began with visuals to review the primary importance of the head-neck-back relationship in Alexander Technique. Dr. Minnes Brandes explained that in the head-neck relationship there is minimal pressure on the neck vertebrae, which are like beads, and the head is lightly balanced above them. She drew attention to the muscular connections from the back of the head to the jaw, and to the shoulders. The second viewing of a picture of a singer throwing her head back and down while singing revealed the caption that read "how to get a sore throat." Dr. Minnes Brandes asked for comments or observations, and participants showed continuous thinking about body use. Ron, a novice bass singer, commented that he had been giving "more attention to the head and neck," and Caroline in the alto section remarked that she was more relaxed and not so tense.

Another student further suggested, "I actually think it makes the jaw looser." I observed that students sat on the risers with a "very tall" awareness in their bodies.

Dr. Minnes Brandes demonstrated Alexander work with three students and the choir was asked to observe. She applied hands-on direction with the students as they stood and moved from sitting to standing, and she questioned the students on their experience as they moved. The choir students observing saw similarities with their own habits, and those who received hands-on guidance made discoveries. The models tensed in different places on impulse to stand, and while standing. While observing, Jillian "truly got a sense" of what the Alexander Technique "looks like." She wrote:

In the first demonstration with Kevan, I realized that he has an imbalance between his right and left legs. He stresses more on the right leg and bends it. But after Dr. Brandes had put her hands-on him, he seemed to be a lot more relaxed.

Dr. Minnes Brandes affirmed that the knees were connected to the ankles and directed him to release the right knee, to "let it go." As Kevan moved from sitting to standing, Jillian observed that "it seemed so easy, like it was without any effort." Kevan said he felt confused by it, and Dr. Minnes Brandes explained this was because it was unfamiliar and different from his habit. Jillian perceived that "the Alexander Technique aims not at the straightness of your backbone, but rather the right connections with each of the vertebrates [sic] that exerts the most efficient energy from the back and the neck," but she still wondered how she "could do that everyday in life." David was "amazed at how quick and casual it looked." He saw that demonstrators tried to have their posture as "straight as possible" but that "all it

brought was rigidity and anxiety all over," perhaps reflecting on his own experience with habitual tension.

Allan's participation in a demonstration brought him "awesome new sensations." His understanding of the AT direction to free the neck was "relaxing by thinking." He gained awareness of his tendency to overwork his posture, and of his faulty kinesthetic sense. Allan recounted his experience:

I remember when I was trying to sit up straight and my neck was really tense, and no matter how or where I moved it, it wouldn't relax. And then Dr. Brandes told me to think about it and suddenly my neck felt different, not necessarily in a relaxing way but definitely in a good way. I think the biggest thing I learned was that I cannot trust my own body, when I thought I was slouching I was actually sitting up straight. I learned that I don't need to be stiff like a board in order to have a good posture. While I'm still unsure of how this will specifically help my singing, I'm sure it will cause less stress on my body.

Those who received hands-on work were "dazzled" by the "crazy sensation" of moving with so little energy, effort, or stress, but felt they could not replicate it on their own. While some students experienced change in their use as they merely thought through the AT directions, others were convinced they could not experience change without hands-on guidance. David stated emphatically, "I do not think I will be able to make any significant changes if I do not actually FEEL what it is like to have the 'correct' posture." However, he also noticed, "I feel that I gain the most air when I am most up, but not necessarily straight." Kathryn, a soprano respondent, observed:

Most of it depends on me telling myself that I shall free my neck and think tall. It's quite fascinating because my body seems to know what to do once I concentrate on my thoughts and let my mind take over. Although I cannot truly tell if my body is positioning in an entirely correct way I do find internal changes in my body. They are not overly

significant but they are recognizable. I can hear that the notes come out more smoothly and I also feel that breathing is easier.

Singers began to sense relationships between the head, neck, and back.

"When I adjust my neck to relax," David noticed, "I feel that my back also relaxes and moves along with my neck." Allan also described an awareness of these relationships:

It feels different when I actually feel how one body part affects another. I can particularly remember relaxing my jaw and my lower back relaxed as well.

A habit of strain on the neck when concentrating was noted by Kathryn who, whenever focusing on doing something, "even in singing," observed that her "head tends to lean forward." The choir was invited to ask further questions after the demonstrations, and Max in the front row asked, "So, where do you put the tension, then? Up? Forward?" Dr. Minnes Brandes responded, "Either way, as long as you maintain the head-neck relationship. Start with the thought, it's through the thought that you will be able to make a difference."

During the remainder of rehearsal I observed a student tuck her feet together, with one knee bent inward and hands behind her as she prepared to sing her solo, which sounded clear and light, but small and thin. I drew attention to her use as I reminded the choir of the need for solid support in the body to sing. Kevan, whose solo was, by contrast, becoming more resonant each time I heard him, applied his understanding so far of balanced, released stance. As the rehearsal continued, I noted much compromised posture. Students stood on the insides and outsides of feet, one with toes pointing inward, one with arms crossed on her belly, and some were in a side-swayed stance. Most of the sample of respondents and a few

participants were attentive to their use. Recalling awareness throughout the rehearsal seemed pertinent to consistent good use.

4.1.4 “Much more power and energy”

Direction in the Alexander Technique is not a muscular action, but is allowing an activity to occur. To “think up” is to let the spine lengthen and widen. Over time, as AT directing is learned, students translate it as “an energizing which precedes and accompanies ordinary muscular activity” (De Alcantara, 1997, p. 59).

Alexander’s own performances, as he implemented the directions of the technique, demonstrated an energized, ringing speaking voice and released fluidity of movement (Hudson, 2002, p.109). Choir students reported evidence of greater ease and energy in their vocalizing during the fourth week.

I gathered the choir on the risers and led them to stretch up each side while reaching overhead. After jogging on the spot, I asked the students to bend over, let their bodies hang, feeling the breath drop into the belly and expand the back. We stood to “think up!” and to gain the solid support of the floor. Session five in week four began with Dr. Minnes Brandes giving verbal directions to the choir while they warmed up, and it continued with three student demonstrations and regular rehearsal. She directed the choir alternately to “think up the spine, soften the knees, release the jaw, free the neck, lengthen the spine,” and “smile behind the eyes.” Julia sensed that she didn’t push her throat and her sound was freer. Roseanne, a confident soprano, noticed her sound was more resonant when “smiling behind the eyes.” The directive to “smile behind the eyes,” (Alexander’s word was just “smile”),

allowed a sensation of opening at the back of the head and cheeks, a freeing of the neck, and it affected tone resonance and range. Kevan reflected, "When I kept my head forward and up, along with the "smile behind the eyes," I felt that I could sing higher notes than before with ease." Kathryn noticed her brighter sound. Another student hesitantly asked, "How do we release the neck?" Dr. Minnes Brandes answered, "You think it!" Students found the AT directives helped them to find poise "without pushing" and allowed them "to become looser in a way that is different from when we simply stretch." Students interpreted "soften the knees" with some confusion, some placing or holding knees in a bent position, others releasing or unlocking. Allan, who in the previous week did not yet see a connection to his singing, found "think up along the spine" to be the most helpful instruction. He observed:

It forces me to remember that my back, neck, and jaw are all connected like one large organism sort of (I always seem to imagine a worm), and that they all effect each other when relaxed or tightened. It helps align the body and relaxes you so you can sing more naturally.

Several singers made connections to their breathing in week four. Kathryn considered her experience in her journal:

I think the Alexander Technique deals mostly with the way we breathe. Personally, I feel that the air goes through right down to my stomach when my neck is straightened. . . . On the other hand, if my neck has bended or leaned forward, the air doesn't go through as smoothly as it should have.

David experienced the monkey position used in AT during his demonstration for the class that week. "Pay attention to your legs. What's happening?" asked Dr. Minnes Brandes. David noticed his left leg holding or leaning. She had him put his hands on her back and hip joint as she shifted weight. She thought "up" to release

her knees, then leaned forward and stuck her hips out. "This is what I don't want you to do!" Dr. Minnes Brandes then demonstrated leading with her head, and let her arms hang. David was led into a monkey position with his side to the choir. He sang in the position and said he "felt so much more air go in" and "through," and he felt it was "much easier to breathe, rather than in my normal position." His breath increased, his strain decreased, and he enthused, "It felt great!" However, he subsequently had inconsistent results trying to translate that experience into his upright singing position. Anna connected her breath to stance as well. "If my feet, my weight, is balanced then I tend to be more straight and then the passage tends to be more open," she said, "so more breath, and more sound, definitely." Others noted increased or "better air flow." One student demonstration received notable comment in the journals. Allan wrote:

I think it was really cool, how when Dr. Brandes worked with Julia the tone of her voice changed, it seemed less distant, more bright, and clearer.

Jillian described her observations:

Dr. Brandes put her hands-on her neck and back as she walked and sang. At first, the sound came out in a rough tone. It could be that she was not warmed-up so well then. After a couple of rounds, I heard the distinctive changes in her voice. The sound came out brighter with much more power and energy. There was one moment when I felt that she suddenly opened up her whole system for singing, and the air was flowing without any obstruction from her stomach to the throat, then out the mouth. I know that I could not have possibly felt what she felt, but I felt it in her voice.

Julia herself enthused, "That felt good! My back opened up!" Rick, new to choir, stated flatly that it was "weird." Dr. Minnes Brandes affirmed that a new experience

could be uncomfortable because it is unfamiliar to our habitual use and faulty kinesthetic sense.

Student application of the Alexander principles was most consistent during warm up, observable in the choir's stance, and audible in their energized tone. Through the rest of rehearsal heads were often down into the music folders as students worked on new music. Holding the music folder and concentrating on learning new parts were challenges to singers' awareness and practice of good use. However, Jillian wrote that this week's AT lesson taught her "a lot about singing and the technique, how they relate and benefit each other." Allan perceptively noted, "I'm amazed at not only how much difference a little thinking can make but also at the fact that you have to make time to think, otherwise it won't work." The choir's kinesthetic awareness had increased by week four, and students reported that release of unnecessary tension, increase in breath, and greater resonance of tone were being felt most consistently in the warm up and during the singing of memorized or familiar repertoire where the interference of music folders was not an issue.

4.1.5 Accumulating attention

Week five of the study included two sessions in which students demonstrated an accumulation of similar observations and experiences that helped to consolidate their understanding. The sound of the choir improved, and students readily expressed the language of directed use. I observed that those who served as

respondents, as well as a few other keen singers, applied the directions most consistently throughout a rehearsal.

Session six began with feedback from students, two final student demonstrations for the choir, then vocal warm up with Dr. Minnes Brandes moving around the choir working with random students. Rick, an athletic student, questioned the connection of AT to his use during "pushups" or in more strenuous exertion. Dr. Minnes Brandes asserted that in everything you do, you could choose to think and do in a more conscious manner. You could ask, "Do I elongate or do I contract?" to become aware of any habit, and then have choices in changing it.

Jillian sang while Dr. Minnes Brandes did hands-on work with her for the choir to observe. Dr. Minnes Brandes asked her to pay attention to her knees, to observe whether they went forward or back, to the left or right. Jillian noted more weight on her right knee. I could see her attention going inward as she explored. As Jillian sang Dr. Minnes Brandes felt her back move forward and away from the hand that supported it, and Jillian's back "shortened." "A full breath means 'stay here,'" Dr. Minnes Brandes said, then asked her to release and soften her knees. Bending her knees a little, again the student sang. She reported that she felt more centered, like a string was suspending her, and felt her sound "came out better" and was "louder." Allan also heard a "difference" in her singing, which previously had "sounded distant and the sound didn't really seem to come out very clear." Another student noted that Jillian "opened up at the end," that a "more open sound" could be heard. The unfamiliarity of new ways of using themselves while singing often felt uncertain to the students. Jillian commented:

It felt very awkward because my knees, now bent a bit, felt as if they were going to collapse any moment. The strong support of my body, which was the 'straight' knees, disappeared.

Kathryn was the second student who participated in the demonstration. She asked, "How am I supposed to stand?" Dr. Minnes Brandes explained that saying "free the neck" was important because to say "straight" or "straighten" caused us to respond with tightness. Saying "free," however, released or brought release. She also reminded us to think of the neck as a part of the back, not as a part of the head, and that the relationship between the head, the neck, and back integrated everything else. Dr. Minnes Brandes observed that Kathryn thought of using the abdomen and diaphragm a lot, and that she'd taught herself to do it. In the monkey position, using AT directions, and letting her arms dangle, Kathryn sang again. Kathryn described her experience:

I found the image of pulling yourself up helpful because I felt a bit taller when I followed the direction and my body also felt more straightened yet not stressed, nor overworked. The process seemed almost indescribable because everything happened so naturally without putting any significant amount of effort in. I found that my tone came out much brighter and it felt more natural. Although it didn't feel as comfortable as before, I found that I didn't have to work as hard. Perhaps I have always been overworking myself while singing.

As David observed Kathryn's habits of breathing use, he identified his own. These two students had been in the choral program for three to four years and had studiously applied the abdominal-diaphragmatic-costal breath management that I taught. David wrote:

We both think more on the belly, and more about breathing, rather than posture, center of gravity, etc. She looked like she was using a lot of effort to sneak in some of those breaths. When she "initiated" monkey position, her breathing seemed much more relaxed.

Allan also commented on the changes in Kathryn's breathing:

I think I noticed how she breathed more easily. I'm not sure how to explain it. She just didn't seem to have to squish the air out of her as much when she was breathing, which is something I find that I sometimes do. When Dr. Brandes worked with the singer in front of us I could really hear a difference. She was able to hit the high notes much more easily and her transitions from lower voice to head voice were much smoother.

During vocal warm up I gave directives to the choir as they stood around the classroom, while Dr. Minnes Brandes circulated among the students and did hands-on work with random singers. I led from the piano and noticed students were inconsistent in feet positioning, so I readdressed stance with feet apart, and I gave directives such as "think up, free the neck, lengthen the back, soften the knees" and "release the jaw" as they breathed and sang. When Dr. Minnes Brandes asked for feedback, an otherwise quiet student hesitantly described that as her head was "lifted" while receiving hands-on direction she had to shift her balance, her weight. Julia said she felt the tone to her "nose and up all the way," and she gestured with her hand cupped in front of her face. The warm up finished with a canon, and I noticed the sound of the choir was pleurably ringing with resonance. The students noticed, too. "I heard the sound grow richer," wrote Lisa, who felt her "head tilted" by Dr. Minnes Brandes and sensed her balance shift "more towards the center." Allan offered:

I could hear a different tone not only in my voice, but in the voice of the whole choir. It was a really interesting sensation to be part of a whole group who sang better.

Attention to balance and scanning the body for tension were more consistent in week five, though habits of head-neck use prevailed. David made an observation of other choir students:

I notice for some people (whenever I go to the back row to sing during practices) that they stick their neck and head out, they lift their shoulders whenever they need to breathe deeply and quickly, and they also seem to force their tone if they want to get louder.

David, however, said that whenever he would think the direction “release the neck,” “I could actually feel my neck slightly relax.” He then made a connection as he realized, “Oh, I do get more resonance when I’m more relaxed, yeah, I feel it more alive in my body.” Anna also commented that as she sang “the higher notes now it’s definitely a lot easier,” and she doesn’t “have to push that much.”

Increasing awareness of the relationship between head-neck-back was evident in student thinking. Previous to this, David wrote that he had “never thought of the neck to be part of the spine/back,” but the relationship was now sensed as one part affected another:

... I notice that when I adjust my back, my neck adjusts with it, and then my head. Nevertheless, it was too fast to really catch if one is not paying enough attention to it.

Kathryn confessed:

At first, I didn’t quite get how to free my neck because it seemed quite impossible to just tell my mind to do so. However, as time went by, it seemed easier to just let my body take over and focus less on how to position myself in an exact way.

In session seven, I asked students what they were doing and thinking to prepare as we warmed up. Responses were quick and encompassed loosening the body, freeing the neck, unlocking the knees, “moving” the head forward and up,

relaxing the jaw, and making the feet equal. Another student said, "straighten," and, querying further on that, "release" was suggested. Dr. Minnes Brandes reminded singers to let the arms hang down. We continued warming up on a scale, humming, then with vowels, and there was greater sound. There was freer tone. There was colour. We asked for feedback, and students remarked that their sound was fuller, richer. Max felt more resonance in his head, and another singer sensed the notes moved more smoothly. Through *O Canada* I heard the tone of the choir shift in and out of resonance and blend as the students sang parts and text. Jillian wondered:

Why does our sound quality always go down when we start to catch the words? Are we capable of multitasking when we sing, trying to memorize the words, relax our body, and think of the tone and the message all at the same time?

Throughout the choir rehearsal, the stance of most singers was solid and there was improved sound in their comfortable ranges. The sopranos' tone thinned out in a melodic ascending leap when their vowel space changed. I noticed greater dimension of tone and volume from the tenors in their mid-range when they rehearsed a melodic section.

Student discussion of the application of AT at the end of this session was animated. Roseanne told the class that when playing piano she got very sore shoulders. There was a murmuring across the choir as many students responded to this. Many played piano or stringed instruments. Jay, who is a cellist and pianist, smugly commented that if you had good technique you wouldn't have problems. Rick linked the principles to the use of his knees as a basketball player. Dr. Minnes Brandes suggested that the Alexander Technique connected it all to how efficiently we used ourselves.

4.1.6 "Everything is interconnected"

The foundational Alexander Technique principle is the use of the self, in which the use of your voice reflects the concerted activity of every part, of your whole self, even "who you are" (De Alcantara, 1997, p.12). Students in the choir gave evidence of this understanding by the end of the sixth and final week of the study.

The final session instructor, Ms. Sandra Head, remarked that, for her as a singer, the Alexander Technique was about looking for an easier way. It was to think about how we do what we do, to ask, "What makes singing easier?" Applying AT to singing was not to just go after a goal, but to attend to how you get there as equally important.

Students stood and spread across the risers and onto the floor for a warm up led by Ms. Head. Dr. Minnes Brandes worked with various students as they breathed and sang. Ms. Head asked singers to consider the exhalation as the start of the breath. She said it takes a long time to get comfortable in our bodies, and we forget to exhale, to rid ourselves of the used air. Students were directed to place their hands-on ribs at the side and notice what happened. As the students breathed, Ms. Head directed them to "just play, observe, don't *try* to get as much air." As the choir repeated a simple five-note passage, Ms. Head noted that some students were inhaling too much. I observed that some new choir students continued to use clavicular breathing. I noticed Ms. Head's deliberate choice to avoid end-gaining language when leading an exercise, as an invitation to explore, not to "get it right," and she asked singers to simply "notice." "Inhale gently," she suggested as they

moved through the exercises. "Find out how *little* you can do or get away with. Don't try to please me!" She warned students not to intellectualize their way through a difficult phrase, but to go into what they felt, to become aware of sensation. She suggested that the simple act of scanning the body would allow some of the tension to dissipate and that even just observing was the beginning of a "letting go" process. Dr. Minnes Brandes asked for feedback, and Julia stated that Alexander Technique had made a major change in her singing. Julia's process is detailed later in this chapter.

In written and interview responses, singers reported they were beginning to incorporate the principles of coordinated use. Their concept of "good posture" expanded from "sit up straight" to a more inclusive view that "it is the way we use our body that makes us feel the most comfortable and exerts the least energy and is thus efficient." Allan reflected that, "since we began the Alexander Technique I have just become really aware of my neck and body and how everything is interconnected." David, the previously "tense" tenor, summarized his experience:

The six weeks have basically been for me the development of awareness to my whole body, and to adjust to where I am relaxed, most "up," and where I am not straining any of the body parts, especially the neck.

He recalled that in the beginning he focused mostly on the "breathing area (i.e., abdominals)," and now he was aware of the "neck area, placement of my feet, my knees, relaxing of shoulders, and on having the spine up (chin not up) so that the last vertebra is not being strained." His attention to preparation for singing changed "so that I don't have to use as much effort."

Straightening became a released lengthening which made breathing easier. Anna learned that being straight “isn’t about putting too much effort in the spine, back area, and overcompensate [sic], but rather finding a comfortable spot where the air passage is the most open and the back is lengthened to allow more air.” She sensed that her breathing was “a lot smoother and easier, as well as that a larger amount of air may be taken in during inhaling when the head directs up and forward, which is down for me.” Her interpretation of “forward and up” was opposite as she felt “shorter” during this direction. Allan found that when he breathed before the start of a song, he sometimes overworked and needed to exhale because he’d inhaled too much air. He also noticed a habit that perhaps didn’t serve his singing:

I think I work too hard in dropping my belly. I think I do it too much, to the point where I’m not quite sure if it’s helping my breathing or if I just do it out of instinct.

Exploring replaced effortful positioning. “I am more conscious – not critical – of my body when I sing,” Lisa reflected. Allan considered the new awareness he gained of his faulty kinesthetic sense to be related to his habit of overwork:

I naturally stand more relaxed now, with a loose jaw, loose knees, straight posture (but not stiff upright straight haha). I call it a slouching straightness because I still remember that day when I thought I was slouching but I was not.

David explored his application of “soften the knees,” and became aware of thinking “actually more *around* the knees as well, not just, like, positioning of the knees.”

Kathryn interpreted this direction as “bending” and felt that it “not only allowed me to determine how I supported my body but also helped me fix my habit of overworking one side of my body and not balancing well.”

Students' notice of changes in vocal tone varied widely. Allan wasn't sure of changes in his singing, but after noting vibration at the back of his neck on low notes and on the roof of his mouth on higher notes commented, "I think I feel a richer tone when I utilize the technique properly." Anna, who had breathy vocal tone, sensed an improvement when her head was released up and not looking down at music in her folder, but this was an intermittent experience. Julia felt greater ease in her upper range as she released her jaw and sensed more resonance. "I feel this, like, ringing in my head, it's more open," she said in her final interview. Kathryn wrote of both her doubts and her sense of vocal improvements after the Alexander

Technique lessons:

At first, I doubted how thinking could alter our singing habit, but my thoughts have totally changed after these six weeks. I found that my body and my mind worked together as a whole and my mind almost often influenced my body. The idea about thinking tall was also very helpful because it really helped me open up in singing and my tone was significantly brighter. I can hear that I now sing more forward (without being sharp). I feel that my voice is richer and I also feel that I've kind of found my "natural" voice.

During the rest of the final rehearsal of the study, the choir reviewed notes and rhythms in preparation for an upcoming spring concert. Heads were looking down into the music, and the tone was generally not energized. I noted many pale, tired faces. The benefits of the technique seemed related to the sustenance of attention, even during concentration. Jillian reflected on the experience:

I realized how important it is for us to be using our bodies the right way because ultimately, our bodies are the instruments of life. I think what I learned the past six weeks will benefit me in whatever I do, and especially when I sing.

4.2 Review and preview

I have shown thus far that the choir's experience of a process of Alexander Technique lessons in rehearsal, presented here from student journals, interviews, in-class responses, and my observations during the study, benefited their understanding of how they use "themselves", how they sing, and their development of vocal skills. The students reported and demonstrated increased awareness of their use. From my observation, the choir experienced the most consistent changes in their head-neck-back poise, and to a varied extent experienced developments in breathing and tone production skills, as their understanding and application of the Alexander principles evolved. The videotapes from both week one and week six revealed that when the direction to think up along the spine was given to the choir on warm up exercises, on chords being tuned, or during rehearsal when a passage was being reworked, the tone was less pushed or forced, the blend of voices improved, and the sound increased in resonance and colour.

To provide further perspectives on how choral students' vocal skills developed through the process of Alexander Technique lessons, I will describe the individual experiences of two students who were respondents in this study. The process of Julia, a tenth grade student singing soprano, and Kevan, an eleventh grade student singing baritone, will be detailed in a week-by-week account.

4.3 Julia

Julia is a fifteen-year-old of Korean background who has participated in high school choir for two years. She is also a violinist in the school orchestra, "used to

play piano,” and enjoys singing pop songs at karaoke in her spare time. She enthused, “I’m always constantly singing, like, 24–7!” Julia has been singing since she was a child; she participated in school choirs in elementary grades, and received private voice training for a short time as a girl. When she experienced some vocal strain or fatigue, saying she had “some problem with my throat” at about 10 years of age, she quit lessons because “I always, like, yell and scream and like, just sing loud. I think I over-use my voice a little bit . . . so my voice was really husky during that time.” With some rest, she regained her singing voice.

At the beginning of this research, Julia described her singing experience as “tight” in her back and shoulders, and she experienced “a lot of tension” under her chin (“my neck,” “right in front of the vocal cords”). She recognized a difference between her vocal tone production in pop music and in choir:

I think it’s different when I’m singing in a group than when I’m singing like a pop song, ‘cause I love to sing R&B and pop, and when I do that I’m more, like, stronger than when I’m singing in a group. I think my voice is a lot softer, like, smoother when I’m singing in a choral group . . . it’s more breathy.

As she prepared to sing Julia explained that she would “try to just think, like, relax and let go of my shoulders, just stand straight,” and try to “lift up” her head. Julia expressed that she was most aware of controlling her breath as she sang and that her abdominal muscles would get tired:

I find running out of breath I usually try to stay on and then I feel my abs and my back kind of tightening. I try to hold on to the note, yeah, that’s what happens.

She inhaled primarily with her mouth, “‘cause I can inhale more” and it was “kinda too loudly” on quick breaths, as she observed, “ I kind of like use my throat a little bit

... it's not like a natural inhaling thing." Julia was aware of the vibration of resonance while singing in her higher range as a "buzz in my nose," and at the "top of my head," and also of "pushing forward" with her throat in the lower range. Her experience of vocal fatigue occurred more when singing pop music, but "usually not" in choral rehearsal, perhaps due to her vocal efforts to "not overwhelm other people, but just try to make it, like, blend in more."

4.3.1 "More energized"

Over the course of the six-week research period, Julia became increasingly aware of her body use and her habits, and she noticed the effect of this on her singing. After the first week of two Alexander Technique lessons introducing the head-neck-back relationship, or primary control, and balanced stance, Julia noted:

I just kind of realized I lean forward a lot. My balance is usually on my toes. I haven't noticed that before. And then it tenses up my muscles in my back.

After finding a centered balance, she felt her breath came more easily and her body was more "relaxed". Her singing felt "a lot clearer and smoother than normal," and her upper range "a bit easier." However, as attention went to the music during the rehearsal, she let her posture sway.

Week two included hands-on work with random singers from Dr. Minnes Brandes, while the choir sang through a vocal warm up. Julia did not receive hands-on direction, but "watched carefully and applied" what the instructor was doing with the other students. Her attention went to "straightening out her spine," and to her balance. She heard that her vocal sound became "a bit more deep," "more

projected,” and that she felt “more energized and refreshed during singing.” Julia made a connection between her habit of “lifting her head,” pushing for higher notes, and her experience of tension in the “neck and chin area”. She observed “after trying to straighten my head, I had less tension in the neck area and also at the back.”

4.3.2 “Noticeable improvement”

In the third week three students worked with Dr. Minnes Brandes as demonstration models for the choir to observe. Julia, an observer in this session, noted various tendencies of singers to move with one knee bent inward or to push the head forward. Afterward, watching herself in a mirror sitting and standing, she became aware of her own forward movement of the head. At the choir’s festival performance that week, Julia “consciously tried to adjust” her head and “keep it aligned” with her back as she sang, and she found that “there was noticeable improvement in the tension that I usually feel in my chin.”

In the fourth week, Julia worked with Dr. Minnes Brandes in front of the class. She found the experience “a bit awkward,” but gained knowledge of some of her “habits” while singing. Initially in this session Dr. Minnes Brandes gave directives to the whole choir during warm up, after which Julia commented that she experienced a “freer” sound and said, “I didn’t push my throat.” Directions such as “free the neck,” “think up along the spine,” “release the jaw,” and “smile behind the eyes” were noted by Julia as helpful for relief of tension, greater resonance of tone, and improved breathing. She wrote:

I felt that the tension in my chin has been greatly alleviated after I tried to release my jaw and lengthen my spine and neck. Also, what I found very effective was to think “smile behind the eyes,” and I felt that it immediately caused the sound to come up to my face, and I felt a buzz and ringing in my face. When I became aware of my neck and back, especially the jaw during the warm up and after, my breathing became more deep and controlled, and my sound was also affected.

Julia reported similar experiences during her hands-on work that week as well:

When Dr. Brandes adjusted my head as I was singing and walking at the same time, my tone became more resonant and brightened. I think when she opened that passage up I felt it coming all the way from my lung to my face, which I didn't feel before. Like, I felt the breath traveling along my spine, yeah. Walking while she was supporting my neck and straightening my back helped me to also pay attention to my balance and posture as I moved.

4.3.3 “Open up”

At her mid-study interview, Julia confirmed that she thought more about her body and her balance, not just while standing, but in all her movements. She “mentally prepared more” for singing. She thought less of “pushing and being really rigid,” more of “opening it up,” and that her neck tensions were “definitely” easing.

Illustrations and verbal descriptions of Alexander Technique principles aided Julia's understanding of the head-neck-back relationship:

I saw the pictures and I try to align my head so it's in line with my back and my bone structure . . . I try to think that it's one bone, not two separate bones, like what she said. So that really helped, too.

Julia recognized, however, that the tensions in her back were still present. She said, “I get it for a few minutes but I return to my old habits. It's hard for me to carry it out.”

Julia began to sense a connection between her neck and her jaw, and her breathing was less constricted. As she would release her neck, she felt “the air

actually reaching down and coming up.” She confirmed a welcome and significant relief of chin tension as she released her jaw more. “I can definitely feel that I open up more. I haven’t noticed any tension on my chin since the AT lessons.” Julia felt she had better control, more resonance, more air, and that it was connected to her balance and lengthening of the spine, which she was not aware of before.

When I’m lingering on a note, I can feel that I can hold onto a note, and quiet down, and control my breath more. That’s definitely what’s been happening. And also when I’m trying to sing loudly, it’s definitely helping to get my tone like, ringing and resonant, not just, like, high pitched and loud. And it’s more just, um, clean and smooth sounding, and warm and bright. It’s definitely different than how I used to sing the high notes, especially high notes. I can definitely tell the difference between when I don’t try to straighten my upper back and try to push on my throat.

At mid-point in the study Julia described the expanding awareness with which she made connections between use and function:

If you’re pushing yourself, if you’re tense, you’re not using your body, like, well. It’s being aware of how you use your body parts and how your body works together to produce sound and voice.

She “constantly” reflected on her body use. Her understanding of being “relaxed” had been a “habit of, like, releasing everything,” and she began to recognize that it was “actually straining your back.” She spoke confidently about understanding her experience as she expressed, “I know that ‘cause I do that! I feel the tension in my back when I do that.” Her image of freeing the neck was “like a string, and then you lift your head up, yeah, like your head’s in the air, and you’re freeing it!”

During the student demonstrations in the fifth week Julia observed that the students put strain on their bodies in different places and reflected on her own, paying attention to her balance and “checking for any straining.” As she “tried to

apply” freeing the neck, letting the head go forward and up, and lengthening by imagining a string “that pulls my whole body” she felt her sound resonating up the back of the neck and “to her face.” She could feel the breath “coming easier and lasting longer” and heard that the sound from her and the whole choir was “just so much better.”

The final sixth week brought new awareness around breathing and overwork. Ms. Head led the warm up, asking singers to consider an exhalation as the start of the breath. Julia wrote:

Exhaling before inhaling at first was a little uncomfortable because I was not used to it, but as I adjusted my breathing I noticed that I became more efficient in the way I use my breath, and sometimes I had a lot of breath left to exhale.

Though Julia felt her back and neck tensions had “improved tremendously,” she still sensed that she worked too hard to straighten her back. “Whenever I think of ‘straightening’ my body, I pull my back forward.”

4.3.4 “Take the time to think about your body”

On review of the unit of lessons, Julia reflected that it was after five sessions that she began to integrate the concepts. In our final interview she recalled:

I think it was, like, week three or four it became really clear to me, it clicked in my mind as we went on what it was about. Before, I just thought I have to not use my voice too much, and not drink anything that’s bad for your voice. But now I know that it’s my body use and how I use my body more related to my voice. So, I pay more attention to my body, not just how I use my throat only. When I first started it was kinda hard ‘cause I had to keep reminding myself, but later it became kinda natural to me, so I really want to keep doing that in my singing and make that into a good habit!

Overall, Julia felt less tension in her back and neck, and she felt her amount and control of breath improve. The squeeze for breath at the ends of phrases eased. "I think that's completely gone," she said, as she considered, "It's like straining your body!" She experienced more resonant tone, and described it as clear, ringing, and "more open." Julia felt that her lower range had extended and her higher range was easier due primarily to a releasing of her jaw. She stated emphatically, "Jaw - I think that's the most improvement I've made." Her experience of vocal fatigue was connected to a lack of attention to her body use. "If I don't pay attention to myself more," she concluded, "I get tired."

The most pertinent Alexander Technique principles for Julia were increased kinesthetic awareness and thinking the directions of releasing the head-neck, lengthening the spine, and releasing the jaw. Releasing the jaw was "really practical, you can really feel it, feel a difference." Smiling behind the eyes was noted as helpful as well. Her understanding of posture expanded from "straightening and adjusting" to "reorganizing your body to make it very efficient, not just physically straightening your neck or back." The most confusing direction for Julia was to let the head go forward and up. She initially thought it was to "pull the neck back," then understood it as "aligning your spinal cord and neck." Her kinesthetic sense was connected to her self-direction. As she explained, "you don't just tell yourself to do it but you feel it in your body, how you can use your body to the fullest, not limit yourself." Julia expressed that the lessons provided a space for reflection in rehearsal and that she gained the most from increased body awareness. In her final interview and journal writing, she reviewed her experience:

It was really amazing to have the opportunity to explore your body, which normally you don't have time or effort to do. I think it's really essential to know your self most, not anything else. You always think of other people and what they think of you, but you have to really take the time to think about your body and yourself, and it's really like meditation more, giving attention to your body and your self. I think it made myself more aware of my body and how I use myself when I was singing because, like, before I was just about notes and getting it done and everything, but now I really know how I use my body when I'm singing. That's really exciting for me! Applying what she tells you in your body and exploring and actually realizing what's going on in your body, that was really exciting! Since I started the Alexander Technique lessons six weeks ago, I've become aware of how I use my body when I sing. This experience has really given me great awareness about my body, and I will strive to keep applying the Alexander Technique in my singing and my daily life.

4.3.5 Summary

Julia reported and I observed that her application of the Alexander Technique to singing in choral rehearsals brought significant benefits. These changes were clearly evident to her by mid-study, and they were further encouraged by her experience of individual work with Dr. Minnes Brandes in session five. Though her back tension continued intermittently, Julia consistently became able to release tension "under the chin." Her breathing expanded in capacity and "control." Julia sensed greater ease of singing in her upper range, with less "pushing from the throat." Though at the start of the research Julia was aware of resonance in her upper range, she gradually felt an increase in this sensation. Julia gained awareness of her habits, and how her "body works together to produce sound and voice." I hope this will serve to continue her development of a healthy and coordinated vocal technique, which is central in choral pedagogy.

4.4 Kevan

Kevan is a sixteen-year-old of Chinese background who began singing at ten years old. He had no private voice lessons or previous choral singing experience. "I just like Chinese pop music, so I started singing," Kevan explained, and has been singing in the high school choir for a year and a half. He plays piano and enjoys participating in music at his church as well as singing karaoke with friends.

At the outset of this research Kevan described his singing voice as "this thing inside me, I don't know where it's coming from." Singing is Kevan's "passion," and he experienced it at times as "kind of like giving your whole body, you kind of put all *that* into your voice." He prepared himself to sing by "thinking tall" and loose as he had learned in choir, and that his breath "has to go really down to the diaphragm, and so, like, no shoulders up, breathing deep." Standing up straight "doesn't feel that natural, it feels tension." Kevan was aware of his hips loosening as he sang, "cause it kinda feels different when I start to sing, it feels like it's bigger." In his comfortable pitch range, Kevan experienced sensations in "not only the lower part [of the torso], even the knees, the whole leg, it feels, really 'go with the note'." He sensed that his main areas of unnecessary tension were at the back of the neck and in his throat when singing loudly, and in his upper range. He commented, "If it's a really high note, then I don't know how to reach that without losing without that looseness." After choir warm ups, Kevan sensed that "the voice is really easier to come out." He noted that his chest felt like it was pushing as he began to sing, and that his tone was "kind of hollow, shallow," or "flat," and sometimes "really pressed." He described his sound further:

Sometimes when I give direction to it, well, sometimes I think it sounds really good, like very whole, kind of round sound. But sometimes it just feels that it's more tension when I have a direction, like go louder. When I hear it, it doesn't feel that great.

4.4.1 "Like a sculpture"

In the first week Kevan became aware that he leaned back on his heels when he sang higher notes. While exploring the full support of the floor more often in his stance, he noted that his throat "did not [feel] sore after the rehearsals." He also considered that this helped him "to get the breaths to go down deeper, because when I was singing my solo line I felt I had more breath than before and that breath lasted longer." He tried to "think up and forward" as he applied the Alexander Technique but concluded that it was a hard thing to do. Recognizing his habit of putting his head back frequently as he sang and in other daily activities, he tried to change it, but "it seemed impossible." Kevan had doubts about how effective only eight sessions would be.

By the second week, Kevan noticed a sense of balanced weight, and he "felt like a sculpture in a sense that every joint/bone felt good and rested upon other bones." Breath came from a deeper place in his body, "coming from the belly, not the chest." He wrestled with his straining habits:

After class, though, my throat was very sore for a bit and then it became better after I drank some water. I noticed the soreness when I was stretching my neck to get the high E flat in the German piece. I tried not to have tension, but if I don't put my posture that way I can't sing loud enough to be heard over a distance.

The rehearsals included learning new repertoire, and Kevan felt that "too many things were going on that distracted my attention to my head/neck posture."

In week three, Kevan was a demonstration model as the choir observed Dr. Minnes Brandes working with his movement from sitting to standing. He experienced expending less energy in movement. He wrote:

I felt as if my head was more balanced and it needed less energy to stay in that position (as supposed to forcing my back to be straight, i.e., soldier's poise). When I stood up from the sitting position on the bench, I felt that it didn't take energy at all. I was dazzled at the time because I didn't know whether it was because Dr. Brandes pulled me up or because AT makes this much of a difference. When I thought about it afterwards, I realized that [it] couldn't be simply that she pulled me up by the neck, because when I stood up, it didn't feel as if my neck was stretching. This possibly meant that my body followed the head and stood up.

Though while standing he frequently felt "loose," and applying the head-neck-back directions "seemed easy," Kevan found he couldn't repeat the sit-stand experience on his own. His awareness of releasing the neck and lengthening the back intermittently eased his voice strain. In the quote that follows, Kevan clearly speaks about inhibition. He acknowledges that once he recognizes that he is using himself poorly, he needs to stop doing that before approaching a new way to use himself:

Before I started the AT lessons, I would ignore the sore throat that sometimes I got through singing. But now, because I am generally more aware of my body use, I would stop and relax my body a little, especially the neck part, and then try to sing the same part again. Sometimes the voice would still sound pushed, so I stop and relax more. But other times I could perceive an obvious difference in my tone, that the voice sounds more round and resonant.

4.4.2 "The note just comes"

In week four, Kevan connected with two helpful directions given to the choir during the vocal warm up. The back of his head "felt instantly open" as he sang with

a “smile behind the eyes.” Kevan recognized that it was when he sang ascending scales that his throat would “sometimes start to [feel] sore.” He further observed that when he kept his head forward and up, “along with the smile behind the eyes, I felt that I could sing higher notes than before with ease.” He continued to notice increased breath capacity, that it seemed to “last longer than before,” and that he could “sneak a quick breath and go for a semi-long phrase.” His application of the direction to “soften the knees” was to bend them, which created “tension everywhere” for Kevan as he “couldn’t really get the feelings of soften my knees without bending them.” He remarked that directing attention to his body became difficult through the rehearsal. He wrote:

I definitely felt that the warm up was different from the rest of the rehearsal, because in the warm up I could connect to myself (inner body) more than when I was singing actual pieces.

Kevan gained from recognizing habits that were related to his lack of efficient use of himself. He realized, after observing a student demonstration with the instructor, that he would “push the voice out instead of letting it go out naturally.” Kevan sensed extra tension in his neck and chest as he did this, so he “started trying to stay in the same position” when he sang. Though the technique wasn’t confusing to him, he thought it was “very hard for one to practice.”

At the mid-study interview, Kevan revealed studious application of thinking up and forward. He “checked” his “posture at each phrase ending.” He was aware of an upward direction from his hips and a downward direction through his legs while he let his hands “drop and feel the gravity pull.” To feel the full support of the floor he “released” his knees. Kevan reported that he shifted his weight less and “now it’s

kind of, it feels like, solid.” He began to make connections between his balance and the poise of his head. He commented: “If I could feel the support from the floor it’s easier to release the back of my neck, ‘cause I wouldn’t feel that I need tension to make my head stand.”

Kevan felt that the direction to lengthen the back was “kind of connected to free the neck because when I free the neck it feels like the whole back is kinda straight.” He became aware of the “inner parts of the body and what they do when you do different actions,” and he tried not to “make unnecessary tensions.”

Kevan connected his body stance to an improved flow of air as he described his breath “going up straight, like there’s no obstacles for the breath going up,” and that it felt “like a tube.” His quick inhalations were deeper, giving him “more power” so that he didn’t have to “work very hard to get the note out” or, “like before,” collapse the chest to “push the voice out.” There was a release of some tension in his throat as he sang higher or louder. As Kevan would think “tall and up,” he noticed that it “feels like the back of my head is open and so it’s like the note just comes.” He felt his voice was more resonant because of decreased tension. In his habitual collapsed position Kevan said he could feel vibration in his vocal cords. As he released “up” in his poise, he felt “like the tone is everywhere.” He thought it sounded more “pure,” as in “very clear and one note,” and that it was “easier to blend with other people than if it’s really pushed.”

4.4.3 "A full circle"

Kevan received a few seconds of hands-on guidance during a vocal warm up in week five that revealed a difference between his perception of his use and where his habits were still in evidence. He wrote:

Before her hands adjusted my position, I thought that my posture was very good and my head was released, but I did feel that some part was weird and doesn't feel loose. When Dr. Brandes started adjusting, I immediately realized that my chest was too collapsed even though my head was thinking up. When I readjusted my torso, I felt better and more "in position."

He became aware of a change in his response as he sent the directions to himself:

At one time when I said, "release my neck," I felt my muscle more contracted and then loosen bit by bit. I think my body is trained to the "I will work hard and try as much as possible to do what the brain says." But now when I say, "release the neck," I think of "let go" and it releases just like that!

He also was convinced that "we really need someone to help us to get the right posture" because of the "discrepancy in the posture one pictures him/herself [as having] and the posture s/he really has." His observation of singers next to him in the choir aided his understanding as he heard a "pushed" sound and then saw misuse in the singers' head-neck-back reminding him of the "how-to-get-a-sore-throat picture." Kevan thought that the "best sound comes out when the body is natural and not all tensed up." At the final interview, Kevan said his turning point in understanding came in week three during his demonstration with Dr. Minnes Brandes, because to that point it had been "really hard to figure out by yourself." Kevan referenced that experience for "how to think up."

Kevan's preparation for singing by the end of the study included thinking, "loosen my neck" as well as "release the knees." He would continue to think up

while singing and “just let the sound come out instead of, like, really pushing it.” Though Kevan was generally “loose” before the study, his awareness of it changed: “Now when I think, “loosen” I don’t actually contract the muscle, but actually think free the muscle.” He gained a concept of posture that required less effort or “constant energy to keep.” “Posture can be a very natural thing,” Kevan concluded, as opposed to his previous concept of straight as “tense.” Kevan’s use of breath also became easier, as he didn’t “try as hard to breathe, and just let the breath fall in.” The instruction in the final session to think that the breath started with exhaling facilitated this ease “because it wasn’t pushed in, so it’s easier to go out as well.” Kevan reported that his habit of “pushing” the voice still occurred, particularly in the extreme high range, but that it was “definitely becoming better and easier to sing higher.” In his comfortable range he noticed a new quality that he described feeling as a “full circle,” compared to an “incomplete” sense of his sound before.

Kevan made a connection between intonation issues and his body use, so that when he was sharp he thought, “maybe I should loosen somewhere” or when he was flat he “should have more power.” His concept of vocal tone had been “just the voice that comes out,” but became “definitely related to the body, to the posture, to how you get the note.” Kevan sensed that “the whole body affects your tone, not just your vocal cords.” Overall, Kevan stated that the process of Alexander Technique lessons taught him how to sing more efficiently, with less work, and a “better sound.” He compared his previous use to his current awareness:

Before I would just think maybe sing louder, or maybe practice, and then really shout the sound out. But now I realize I have to think more inward, like, get all the inner parts right, and then maybe I can get the notes.

4.4.4 Summary

Kevan applied the Alexander Technique to his singing in choral rehearsal with apparent benefit to his vocal skill development. Integration of the concepts began as he gained a better balance in his stance in the initial sessions. His application of head-neck-back poise allowed for an increase in breath capacity and ease of tone production. Kevan's "sore throat" was intermittently relieved as he began to sing with less strain and his sensation of tone resonance expanded. Kevan thoughtfully observed and began to inhibit his habit of "pushing," leading him to suggest that the "best sound comes out when the body is natural and not all tensed up." After hands-on work in week three, Kevan became aware of his faulty perception at times, and of his need for guidance into a new experience of use. The process of Alexander Technique lessons raised Kevan's kinesthetic awareness and increased his coordinated use toward a healthier vocal technique.

In the next chapter I will summarize and discuss these findings, and suggest implications for the practice of adolescent choral pedagogy.

5 SUMMARY

In this instrumental case study I explored how the application of Alexander Technique lessons in the high school choral rehearsal benefited adolescent vocal skills, and sought to discover what students' experiences were of posture, breathing, and tone production in that process. I found that applying Alexander Technique lessons in the choral rehearsal benefited adolescent vocal skill development through increased awareness and direction of use, which allowed for a release of straining tensions in the jaw, neck, back, and abdomen, increased breath capacity, and facilitated greater ease in sound production, along with increased sensations of tone resonance. Students' experience of benefits seemed to be relative to their level of application and understanding of Alexander principles over the six-week study. Evidence of benefits to the choir's posture and sound seemed to be most consistently demonstrated in the vocal warm up.

The outcomes of this study seem to reinforce the positive findings of other investigations of the impact of Alexander Technique on vocal sound production (Lloyd, 1988; MacDonald, 1997) and support similar recommendations for implementation of such principles in choral pedagogy (Conable, 2000; Jordan, 2005). F. M. Alexander recognized that habits of movement govern all our activities, and that conscious direction in the use of the self would re-educate and re-energize the human "psycho-physical organism." As a choral teacher, I endeavor to cultivate new habits of muscular coordination in my students for breathing and tone production, and this study showed that students' adoption of Alexander's principles for an integrated use of the self through awareness, inhibition, and direction serve

the development of these skills. In this chapter, I will present a summary of students' experiences in the three areas of vocal skill that this study explored and describe how student understanding of AT principles developed during the process of AT lessons. I will then discuss observations on student responses and implications for choral teaching.

5.1 Posture

Student reports indicated that a process of Alexander Technique lessons in the high school choral rehearsal increased their kinesthetic awareness. Students became aware of their habitual self use in stance, balance, and head-neck-back alignment that contributed to unnecessary tension, and that impeded their development of vocal skills. Students revealed that their concept of posture expanded from "standing straight" to an awareness and conscious re-organization of the interrelationship of their head-neck-back, knees, and feet. Students became aware of shifting feet, weight, and tight knees that created tensions in the back, neck, and position of the head. The choir explored a body re-alignment through the primary control directions to let the neck be free and to let the head go forward and up, so that the back might lengthen and widen. This approach contrasts with the concept of placed position taught in many choral and voice programs (Collins, 1999; Phillips, 2004; Thurman & Welch, 2000). As students gained the full support of the floor through released knees and balanced weight, they reported varied improvements in breathing and tone production. As students sensed gathering tensions, they began to inhibit or stop their habitual use and reorganized their

posture through sending AT directions with increasing effectiveness that released strain.

From the midpoint of the study (three to four weeks), after visual, experiential, and verbal instruction, the choir increasingly demonstrated understanding of and consistency in application of AT principles to posture. Initially in the study, the choir demonstrated muscular over-work of the back and collapsed chest while standing "straight," and experienced some disorientation or confusion in thinking AT directions. A similar finding was reported in Lloyd's case study (1988), that the initial "few weeks" of disorientation passed when singers began to understand the "value of releases" (p. 114). The choir's increased awareness of self-use created a starting place for choral students to begin choosing to respond to the stimulus to sing with inhibition of their initial habit, then with AT directions that facilitated greater release from tensions that strained their voices. This addresses a prominent concern for choral and voice educators that poor postural habits and lack of kinesthetic awareness contribute to compensatory tensions and muscular inefficiencies in vocal technique (Buchanan, 2005; Deeter, 2005; Doscher, 1994; Macdonald, 1997; Smith and Sataloff, 2003).

Students' comments and my observations reveal that after vocal warm up, as the choir concentrated on note learning and reading music through rehearsal, students' kinesthetic awareness of use became intermittent. Varied application of AT to posture through rehearsal was possibly related to the students' beginning stage of awareness, and to the frequency of my recall of student attention during rehearsal. Overall, applying the Alexander Technique principles of kinesthetic

awareness, inhibition, and direction seemed to facilitate for the choir an energized, dynamic experience of balanced poise that released unnecessary tension. These findings support Jordan's (2005) call for creating inclusive and inner awareness, addressing muscular rigidity, and realigning the body through mind-body principles in choral pedagogy.

5.2 Breathing

Student comments indicate that they experienced increased flow of breath through a process of applying of Alexander Technique lessons in the choral rehearsal. Both in-class reports and written reflections suggest that as students found their place of centered balance and "softened" their knees, greater ease of breathing and increased volumes of breath were experienced. As attention was given to AT directions, summarized in "thinking up along the spine," choir students reported the sensation of an open and unobstructed air passage. Students experienced exerting less effort for breath at phrase beginning, middle, and end points.

Student written reflections reveal a possible relationship between focus on abdominal breathing and muscular inefficiency. Respondents reported a focus on and over-work of their abdominal musculature as they prepared and used the breath to sing in accordance with the breath management strategy that I taught. Students reported that less effort was exerted in the abdominal area and in the breath cycle overall through the course of AT lessons, as their attention expanded to directing the head-neck-back relationship, to allowing breath to refresh naturally rather than

taking it in, and to letting breath release. This experience seems to suggest that habits of abdominal-diaphragmatic-costal breathing are possibly inducing unnecessary tension (Reid, 1992) and that as Heirich (2005) has suggested, an “exaggerated importance is attached to breath manipulation” (p. 33). It has been shown that breath capacity and tonal duration are positively affected by this breath management strategy (Phillips, 1992, 2004; Fett, 1993), and I now question how to teach this in the context of attention to the use of the whole self. An initial strategy would be to adjust my use of language in teaching breath management from directive descriptions that may contribute to unnecessary muscular effort and tension (i.e., “lift the ribs,” “expand and contract the abdomen,” “try to keep the chest high”) to include invitations to release, notice, allow, and explore while “thinking up along the spine.” James Jordan suggests “awareness reminders” in the forward to Conable’s *The Structures and Movement of Breathing: A primer for choirs and choruses* (2000, p. 10). Such a pedagogical approach, without compromising accurate information about musculature and the vocal mechanism, could facilitate student attention to the breathing and singing process with greater ease.

5.3 Tone production

Student reports suggest that an awareness of the relationship of the use of the whole self to tone production was gained. Students expressed that their focus during singing, prior to the process of Alexander Technique lessons, was on achieving a quality of sound in all registers and on the use of the “throat.” As choral students consciously applied the AT directions in lengthening, balancing, and

releasing their whole use, some changes were experienced in tone production. Students reported that as they released the jaw, for example, in combination with thinking “up,” and “smiling behind the eyes,” an increased vibration of resonance was felt in more areas of the head. “Thinking” the AT directions was also reported to facilitate greater ease in the production of higher notes for some students. Two respondents connected singing sharp in pitch to unnecessary tension in their use. Students’ improved kinesthetic awareness and head-neck-back relationship seemed to facilitate these developments in their vocal sound production.

The process of AT lessons in the choral rehearsal improved the tone quality of the choir as the AT principles of use were applied. A more resonant sound was reported by both participants and respondents, which I also observed. This supports Conable’s (2000) report of the “terrific difference embodiment makes in the quality of the singing” when kinesthetic awareness of use is applied in the choir (p. 14). I observed inconsistency of tone production in the choir during repertoire work when student attention to use declined. The sound of the choir improved in richness most particularly during warm up when students’ hands were free of music folders and attention to use and vocal sound production was sustained.

5.4 Understanding of Alexander Technique principles

This study’s process of Alexander Technique lessons facilitated a basic student understanding of AT principles of the use of the whole self, the relationship of the head-neck-back (the primary control), faulty kinesthetic awareness, inhibition of habitual reaction, and direction. The language and application of AT direction was

most understood, while terms such as primary control, faulty sensory awareness, inhibition, end-gaining, and means-whereby were not used. The choir showed increased kinesthetic awareness of their use and demonstrated new awareness of habits. Students had some confusion over their experience of the “correctness” of AT posture through the first half of the study, demonstrating faulty sensory perception, an end-gaining orientation, and a disorientation as new experience contrasted with the familiarity of their habitual use. This gave way, as the study progressed, to greater attention to the process of their use in singing as students began consciously directing the head-neck-back in a dynamic, balanced relationship. Though students were not completely familiar with the term “primary control” by the end of the study, they understood its key role of attention to the relationship of the head, neck, and back. The “means-whereby” process of inhibition and direction was demonstrated as students stopped to re-organize their use in warm ups and consciously applied the AT directions.

The choir’s understanding and application of AT directions was sufficient to release some unnecessary tensions in their singing. I found that though the choir seemed able to apply the verbal and visual instruction in the Alexander Technique, shifts in their understanding occurred markedly as students experienced hands-on guidance in their use.

5.5 Discussion and implications for choral teaching

The setting of this case study was characteristic of a typical choral rehearsal; group instruction was used and participants were of various backgrounds and levels

of singing skill. Instruction occurred after the regular school day, or off the timetable, which is not uncommon in public high school choral courses in the city where this study was conducted. Since the research setting was consistent with that of a typical high school choral rehearsal, the process of Alexander Technique lessons employed in this study may be beneficial in improving relaxed, coordinated use for developing vocal skills in similar situations.

5.5.1 From misuse to good use

Increased kinesthetic awareness and application of AT directions improved student use, and led to students' release of over-work habits in the back, neck, jaw, and abdomen, and to increased breath capacity and sensations of tone resonance. Results similar to this but significantly greater were found by Lloyd (1988), whose case study applied thirty Alexander Technique lessons in private voice instruction with five adult students. She noted that "skills learned with ingrained tension habits will be dominated by those habits until such time as the Alexander re-education is strong enough and clear enough" to apply the principle of inhibition and "thereby allow the [new] skill to 'happen'" (Lloyd, 1988, p.142). I was alarmed at the habitual vocal strain reported by some of the respondents at the outset of this study, as these were singers who had been under my tutelage for at least two years. Though I had consistently taught vocal technique in warm up for ten minutes each rehearsal, these reports suggested to me that choral students could continue in damaging vocal habits with little change, as I remained unaware of their individual experience and as I committed a majority of instructional time toward the program goal of preparing for

choral performances. That several students in the choir were able to begin inhibiting their habitual responses and coordinate themselves in an improved use after only eight sessions suggests the possibility of significant benefits to choral students' vocal development if AT were to be applied throughout the full school year.

Respondents' interaction with me over the course of the AT lessons could have positively affected their level of understanding and application. In contrast to participants, I observed that it was the respondents who most frequently offered observations in class and who most consistently attended to their use. This suggests that incorporating regular student reflection in journals for all singers on their vocal process in my choral teaching and application of AT in the future would facilitate increased student attention to their use.

I observed that my own use and rehearsal technique demonstrated possible end-gaining tendencies. My classroom management and teaching strategies emphasized maintaining a fast lesson pace with quick transitions, limited teacher talk to maximize on-task singing work, vocal demonstration, questioning on the musical literature, and some rote teaching of notes, thus minimizing time for reflection and response from singers particularly on their vocal technique experience. It was a high priority for me to accomplish the teaching of repertoire for performances. On review of the videotapes, I noticed tightness in my use, in hips, shoulders, and head-neck as I conducted and spoke loudly to address the choir. The known effects of a conductor's kinesthetic use on the sound of her choir suggests that it was possible that my limited recall of attention to both my own and the students' use affected the choir's consistency in application of AT (Chagnon,

2001; Con, 2002; Eichenberger 1994, 2001; Jordan, 1996). Addressing kinesthetic awareness and thinking AT directions throughout the choral rehearsal would increase benefits to students' singing.

5.5.2 The Process of Awareness

Throughout the study, I observed that student concentration on music reading, part learning, and holding music folders compromised their kinesthetic awareness and application of AT principles of use. Habits of misuse brought on by this effortful focus were most released during the vocal warm up portions of the lessons, when student awareness was more inclusive. De Alcantara (1997) stated that AT directing increases an all-inclusive awareness, and he differentiated this from concentration as a focus on one thing. He quoted martial artist and teacher Bruce Lee, who wrote that "a concentrated mind is not an attentive mind, but a mind that is in the state of awareness can concentrate" (Lee, 1975, quoted in De Alcantara, 1997, p. 70). A finely tuned mental focus served the achievement of high academic standing for many of the choir's International Baccalaureate students, but may have also been a contributing factor for some students who experienced difficulty re-orienting from an end-gaining approach of "trying to do it correctly" or "get it right" to the AT means-whereby approach of inhibition, direction, and attention to process.

It is clear that students require consistent reinforcement of the process of Alexander Technique principles to derive benefits from the approach. It would seem, then, that the inclusion in the choral curriculum of AT concepts, supported by

a workshop or clinic with a trained AT teacher giving students a hands-on guided experience, would be both helpful and even necessary in students' re-education of awareness of use. The exhortation in choral and vocal pedagogy to study voice and develop kinesthetic awareness is also clear (Jordan, 2005; Nelson & Blades-Zeller, 2002; Phillips, 2004; Smith & Sataloff, 2000). My personal experience of lessons in Alexander Technique and subsequent study of its benefits for choir students has increased the sensitivity of my hearing and observation of tension in singers' voices and my own. I will continue the application of Alexander Technique in my choral rehearsals. AT principles have provided me with greater pedagogical insights as I have sought to increase my awareness of the use of my whole self and release the sound of my choral singers.

REFERENCES

- Alexander, F. M. (1932/1985). *The use of the self*. London, UK: Orion Books.
- Blades-Zeller, E. (2002). *A spectrum of voices: prominent American voice teachers discuss the teaching of singing*. Lanham, MD: Scarecrow Press.
- Bresler, L. & Stake, R. E. (2006). Qualitative research methodology in music education. In R. Colwell (Ed.), *MENC Handbook of Research Methodologies* (pp. 270-311). New York: Oxford University Press.
- Brown, W. E. (1973, c.1957). *Vocal Wisdom: Maxims of Giovanni Battista Lamperti*. Boston: Crescendo Publishing.
- Buchanan, H. (2005). On the Voice: An Introduction to Body Mapping: Enhancing Musical Performance Through Somatic Pedagogy. *Choral Journal* 45(7), 95-101.
- Bunch, M. (2004). *The Singing Book*. New York: W.W. Norton.
- Carman, J. (2004). Yoga and Singing: Natural Partners. *Journal of Singing* 60(5), 433-441.
- Chagnon, R. (2001). *A comparison of five choral directors' use of movement to facilitate learning in rehearsals*. Doctoral dissertation, Arizona State University. (Proquest Dissertations AAT3002819)
- Collins, D. L. (1999). *Teaching choral music*. Upper Saddle River, NJ: Prentice-Hall.
- Con, A. J. (2002). *The life and philosophy of choral conductor Rodney Eichenberger, including a detailed analysis and application of his conductor-singer gestures*. Doctoral dissertation, Florida State University. (Proquest Dissertations AAT 3065478)
- Conable, B. (1998). *What every musician needs to know about the body: The practical application of Body Mapping and the Alexander Technique to making music*. Columbus, OH: Andover Press.
- Conable, B. (2000). *The structures and movement of breathing: a primer for choirs and choruses*. Chicago: GIA Publications.
- De Alcantara, P. (1997). *Indirect procedures: A musician's guide to the Alexander Technique*. New York: Oxford University Press.

- Deeter, A. W. (2005). Overlooked and Undermining: A Look into Some of the Causes, Effects, and Preventatives to the Dysfunctions Generated by Excessive Tension. *Journal of Singing* 62(1), 27-31.
- Denzin, N. K., & Lincoln, Y. S. (Eds.). (2003). *Collecting and interpreting qualitative materials* (2nd ed.). Thousand Oaks, CA: Sage Publications.
- Doscher, B. (1994). *The functional unity of the singing voice* (2nd ed.). Metuchen, NJ: Scarecrow Press.
- Dosso, J. L. (2004). *Coming home to the self through freeing the singing voice*. Master's Thesis, St. Stephen's College, Edmonton, AB. (Proquest Dissertations AAT MQ97323)
- Eichenberger, R. (Producer) & Dunn, M. (Director). (1994). *What they see is what you get! Linking the visual, the aural, and the kinetic to promote artistic choral singing*. Chapel Hill, NC: Hinshaw Music, Inc.
- Eichenberger, R. (Producer). (2001). *Enhancing musicality through movement*. Santa Barbara, CA: Santa Barbara Music Publishing.
- Fett, D. L. (1993). *The adolescent female voice: The effect of vocal skills instruction on measures of singing performance and breath management*. Doctoral dissertation, University of Iowa. (Proquest Dissertations AAT 9334595)
- Freed, D. C. (1994). Breath Management Terminology: How far have we come? *NATS Journal*, 50(5), 15-28.
- Griffin, B., Woo, P., Colton, R., Casper, J., & Brewer, D. (1995). Physiological characteristics of the supported singing voice: a preliminary study. *Journal of Voice*, 9(1), 45-56.
- Head, S. (1996). *How the Alexander Technique informs the teaching of singing: The personal experience of, and analysis by a singing teacher*. Unpublished master's project, University of British Columbia, Vancouver, B.C.
- Heirich, J. (2005). *Voice and the Alexander Technique*. Berkeley, CA: Mornum Time Press.
- Hudson, B. (2002). The effects of the Alexander Technique on the respiratory system of the singer/actor part I: F.M. Alexander and concepts of his technique that affect respiration in singer/actors. *Journal of Singing*, 59(1), 9-17.
- Hudson, B. (2002). The effects of the Alexander Technique on the respiratory system of the singer/actor part II: Implications for training respiration in

- singer/actors based on concepts of the Alexander Technique. *Journal of Singing*, 59(2), 105-110.
- Jordan, J. (1996). *Evoking sound*. Chicago: GIA Publications.
- Jordan, J. (2005). *Evoking sound: the choral warm-up*. Chicago: GIA Publications.
- LeCompte, M. D. (2000). Analyzing qualitative data. *Theory into practice*, 39(3), 146-154.
- LeCompte, M. D. & Schensul, J. L. (1999). *Analyzing and interpreting ethnographic data*. Walnut Creek, CA: Alta Mira Press.
- Linklater, K. (1976). *Freeing the natural voice*. New York: Drama Publishers.
- Lloyd, G. (1988). *The application of the Alexander Technique to the teaching and performing of singing: A case study approach*. Master's Thesis, University of Stellenbosch. (Proquest Dissertations, 1331717)
- Macdonald, R. (1997). *The use of the voice: Sensory appreciation, posture, vocal functioning, and Shakespearean text performance*. London, UK: Macdonald Media.
- Merriam, S. B. (1998). *Qualitative research and case study applications in education*. San Francisco: Jossey-Bass Publishers.
- Miller, R. (1986). *The structure of singing: System and Art in Vocal Technique*. New York: Schirmer.
- Miller, R. (1997). *National schools of singing: English, French, German, and Italian techniques of singing revisited*. Lanham, MD: Scarecrow Press.
- Miller, R. (2004). *Solutions for singers*. New York: Oxford Press.
- Morse, J. M., Richards, L. (2002). *Read me first for a user's guide to qualitative methods*. Thousand Oaks, CA: Sage Publications.
- Murdock, R. (1996, 2001). *Born to sing*. Retrieved October 30, 2006, from <http://www.cursa-ur.com/articles/borntosing.htm>
- Nelson, S. H., & Blades-Zeller, E. (2002). *Singing with your whole self: The Feldendrais method and voice*. Lanham, MD: Scarecrow Press.
- Ohrenstein, D. (1999). Physical Tension, Awareness Techniques, and Singing. *Journal of Singing*, 56(1), 23-26.

- Phillips, K. H. (1992). Breathing and its relationship to vocal quality among adolescent female singers. *Journal of research in singing and applied vocal pedagogy*, 15(2), 1-12.
- Phillips, K. (2004). *Directing the choral music program*. New York: Oxford University Press.
- Rao, D. (2005). *A circle of sound*. New York: Boosey and Hawkes.
- Reid, C. (1983). *A dictionary of vocal terminology: An analysis*. New York: Music House.
- Reid, C. (1992). *Essays on the nature of singing*. Huntsville, TX: Recital Publications.
- Sataloff, R.T., & Smith, B. (2003). Care of the professional voice: Choral pedagogy and vocal health. *Journal of Singing*, 59(3), 233-239.
- Smith, B., & Sataloff, R.T. (2000). *Choral pedagogy*. San Diego, CA: Singular Publishing Group.
- Stake, R. E. (1995). *Art of case study research*. Thousand Oaks, CA: Sage Publications.
- Stake, R. E. (2000). Case studies. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 435-454). Thousand Oaks, CA: Sage Publications.
- Swan, H. (1988). The development of a choral instrument. In H.A. Decker, & J. Herford, (Eds.), *Choral Conducting Symposium* (pp.7-68). Englewood Cliffs, NJ: Prentice Hall.
- Thurman, L., Welch, G. (Eds.). (2000). *Bodymind and voice: Foundations of voice education*. Minneapolis: The VoiceCare Network, Fairview Voice Center; Iowa City: National Center for Voice & Speech; London: Centre for Advanced Studies in Music Education.
- Vennard, W. (1968). *Singing: The mechanism and the technic*. New York: Fischer.
- Weiss, M. U. (2005). *The Alexander Technique and the art of teaching voice*. Doctoral dissertation, Boston University. (Proquest Dissertations, AAT 3171206)
- Wolcott, H. F. (1994). *Transforming qualitative data: Description, analysis, and interpretation*. Thousand Oaks, CA: Sage Publications.

Yin, R. K. (2003). *Case study research: Design and methods* (3rd ed.) Thousand Oaks, CA: Sage Publications.

APPENDICES

Appendix A

**Participant Assent Form
Parent/Guardian Consent Form**



The University of British Columbia
Faculty of Education
Department of Curriculum Studies
2125 Main Mall
Vancouver, B.C. Canada V6T 1Z4
Tel: (604) 822-5422 Fax: (604) 822-4714

Participant Assent Form
Applying Alexander Technique in the High School Choral Rehearsal

Principal Investigator:

Dr. Scott Goble, UBC Department of Curriculum Studies

Co-Investigator:

Karen Parent Dionne, graduate student, UBC Department of Curriculum Studies

Purpose of the Research

The purpose of the research is to examine the application of Alexander Technique lessons in the choral classroom and to describe its benefits to students' vocal skills. This study will serve as the basis of a Master's thesis in music education for Ms. Parent Dionne.

Procedures

During March and April a certified practitioner of Alexander Technique, Dr. Gabriella Minnes Brandes, will conduct fifteen-minute lessons at the outset of each class. The mini-lessons will draw students' attention to habits in using their voices, particularly in head-neck-back relationships in movement. Students will be led to explore options to habitual responses through everyday movements such as sitting, standing, walking, and using their voices. (Details on the Alexander Technique can be found at: <http://members.shaw.ca/AlexanderTechniqueCentre>)

Data will be gathered through in-class observation, two video taped rehearsals, and in interviews. Students who choose to serve as **participants** will attend regular choir classes. Students may also choose to participate as **respondents**, meeting with Ms. Dionne for three interviews of approximately one hour each, and writing weekly journals describing their experiences in class. The interviews will involve open-ended questions regarding their vocal experience during the study. Ms. Dionne will provide a copy of the analysis of interviews and written reflections to participating students to check that their experience has been accurately portrayed.

There are no risks to participants or respondents in this study. Participation will have no effect on choir students' grades. To ensure that a

student's non-participation will not influence his/her standing, evaluation of vocal skills for this unit will be undertaken by a student teacher. The personal benefit of being involved in Alexander Technique mini-lessons may be an increased awareness of the use and misuse of the voice and body in singing and everyday movement, as has been documented in other studies with individual singers and actors. Students are free to cease participation in the study at any time. You will not be videotaped and may still participate in the class off camera.

Confidentiality

The identity of participants and respondents will be kept strictly confidential. All documents will be identified only by code number and secured in a locked file, accessed only by Ms Dionne and shown to the research advisor. Anonymity will be maintained in final reporting, and a copy of the report will be available to participants and respondents upon request.

If you have any questions or desire further information with respect to this study, please ask Ms. Dionne, or contact the research supervisor Dr. Scott Goble. If you have any concerns about your treatment or rights as a research subject, you may contact the Research Subject Information Line in the UBC Office of Research Services at (604) 822-8598.

Your participation in this study is entirely voluntary, and you may withdraw from the study at any time without jeopardy to your class standing. Your signature below indicates that you have received a copy of this assent form for your own records. Your signature indicates that you assent to participate in this study. Your interest in participation as a **respondent** may be communicated to Mr. Hurst, Performing Arts Department Head.

Participant's Signature

Date

Printed Name of the Participant



The University of British Columbia
Faculty of Education
Department of Curriculum Studies
2125 Main Mall
Vancouver, B.C. Canada V6T 1Z4
Tel: (604) 822-5422 Fax: (604) 822-4714

March, 2007

Dear Parent or Guardian,

In March and April the members of your child's Senior Concert Choir are invited to participate in a study examining student vocal skills during a series of Alexander Technique lessons in choral class. This letter is to request your consent to allow your son/daughter to be a part of this project. The study will be conducted by myself under the supervision of Dr. Scott Goble, Assistant Professor of Music Education at UBC, and will serve as a Master's thesis in music education.

During the project a certified practitioner of Alexander Technique, Dr. Gabriella Minnes Brandes, will conduct fifteen-minute lessons at the outset of each class. The mini-lessons will draw students' attention to habits in using their voices, particularly in head-neck-back relationships in movement. Students will be led to explore options to habitual responses through everyday movements such as sitting, standing, walking, and using their voices. (Details on the Alexander Technique can be found at: <http://members.shaw.ca/AlexanderTechniqueCentre>)

Data will be gathered through in-class observation, two video taped rehearsals and in interviews. Student **participants** will attend regular choir classes. Your son/daughter may also choose to participate as a **respondent**, meeting with Ms. Dionne for three interviews of approximately one hour each, and writing weekly journals describing his/her experiences in class. The interviews will involve open-ended questions regarding his/her vocal experience during the study. I will submit a copy of my analysis of interviews and written reflections to your child to check that I have accurately portrayed his/her experience.

There are no risks to your child as a participant or respondent in this study. Participation will have no affect on his/her choir grade. To ensure that a student's non-participation will not influence his/her standing, evaluation of vocal skills for this unit will be undertaken by a student teacher. The personal benefit of being involved in Alexander Technique mini-lessons may be an increased awareness of the use and misuse of the voice and body in singing and everyday movement, as has been documented in other studies with

individual singers and actors. Your child is free to cease participation in the study at any time. If you choose not to give your consent, your child will not be videotaped and may participate in the class off camera.

As a participant or respondent your child's identity will be kept strictly confidential. All documents will be identified only by code number and secured in a locked file, accessed only by me and shown to my research advisor. Anonymity will be maintained in final reporting, and a copy of the report will be available to you on request.

If you have any questions or desire further information with respect to this study, please feel free to call or e-mail me using the contact information below. You may also contact Dr. Scott Goble at UBC in the Department of Curriculum Studies. If you have any concerns about your child's treatment or rights as a research subject, you may contact the Research Subject Information Line in the UBC Office of Research Services at (604) 822-8598.

I would be extremely pleased if you grant permission for your child to participate in the project. Your child's participation in this study is entirely voluntary, and withdrawal from the study at any time will not affect his/her class standing. Your signature below indicates that you have received a copy of this consent form for your own records. Your signature indicates your choice to refuse or give consent to your child's participation in this study.

Respectfully,

Karen Parent Dionne

Music Department, Choral Director

I consent / do not consent (circle one) to my child's involvement in this Study as participant / respondent (circle appropriately to choose participant **or** participant and respondent)

Parent/Guardian Signature

Date

Printed Name of the Parent or Guardian signing above.

Appendix B

Interview and Journal Questions

Interview Questions

Week One

1. How long have you been singing?
 - a) Have you had singing lessons?
 - b) Previous choir experience?
 - c) How long in Churchill's choir?
2. Tell me about your voice, your singing, as you know it and experience it now.
 - a) Describe your singing voice.
 - b) Describe your feelings about singing.
 - c) Describe your sensations while singing.
3. Tell me about working with your stance as you sing.
 - a) When do you think about your position? What do you do?
 - b) As you sing, what places in your body are you most aware of?
 - c) Where do you notice tension, fatigue, or increased energy during rehearsal?
 - d) After an introduction to Alexander Technique this week, did anything happen with your awareness of your "posture"? If so, what?
4. Describe your use of breath for singing.
 - a) What do you focus on as you inhale?
 - b) What do you notice as you refresh your breath between phrases?
 - i. Do you have sufficient air for the next phrase usually?
 - ii. Can you hear your breath renewal?
 - iii. Do you "hold" breath in any way that you are aware of?
 - c) Where is your attention during exhalation?
 - d) After your introduction to AT, do you notice anything more about your breathing?
5. Describe your experience of vocal sound production, your sensations of the tone of your singing voice.
 - a) As you begin to sing, where is your attention?
 - b) How do different places in your range feel?
 - c) Do you experience vocal fatigue/range loss in rehearsal?
 - d) How has beginning AT lessons affected your attention to and experience of vocal sound production?
6. Do you have any other comments, questions, or observations?

Additional questions may be asked for purposes of clarification, and to follow up on answers provided by student participant/respondents.

Week Four

At this point in our exploration of Alexander Technique after 4 –5 sessions, describe/comment on the following 4 areas, starting with your awareness, then detailing your use after that.

1. Stance: How has your poise developed or remained the same?
 - a. changes in awareness – where, how often
 - b. changes in use
 - i. use of/connections of head, head-neck, head-neck-back, shoulders, knees, hips, feet/balance
 - ii. while standing, preparing for singing, while singing
 - c. tensions
 - i. release, increase, fluctuations
 - ii. necessary v. overwork, holding v. directing
2. Breath: What have you noticed, if anything over these 4 weeks, about your way of breathing for singing?
 - a. changes in awareness – prep, catch, phrase end
 - i. Amount of air? Frequency of intake? Depth of inhalation?
 - b. changes in use– inhale/exhale
 - i. ribs, back, abdominal muscles Rib lift? Back expand? Squeeze?
 - c. connections to stance
3. Tone Production: Has your sound and the way you produce it shifted in any way or at any time over these first 4 sessions?
 - a. Changes in awareness – where, when
 - b. lower , mid, upper-ranges
 - c. quality of tone
 - d. connections to stance
4. AT terms: What do you understand about the process and principles of the Alexander Technique so far?
 - a. Awareness experience
 - i. amount of attention – increase, decrease
 - ii. duration of attention - momentary/ongoing, frequency, sustenance
 - iii. quality of attention – subtlety, detail, depth, when
 - b. Use – overuse – misuse: what do these mean?
 - c. Thinking while doing and singing: “thinking in activity”
 - i. Have you done this yet?
 - d. Primary control
 - i. Free the neck
 - ii. Head go forward and up
 - iii. Let the back lengthen and widen
5. Do you have any questions or comments at this point?

Week Six

After 8 sessions in Alexander Technique, hearing and seeing others work with their self –use, sensing your own use, and engaging in some discussion about it, let's review your experience of your stance, breathing, and sound production.

1. Describe/summarize generally your perceptions of this experience.
 - a. Does 6 weeks seem like a long time ago?
 - b. Do a time scan. What stands out, if anything?
 - c. How has this been valuable or not?
 - d. What will you continue to explore? What is still in discovery? What do you wonder about?
 - e. What are your goals as a singer? Do you think any differently now about how you will get there?
2. How do you think about your body as you prepare to and while you sing now?
 - a. How has your 'use' or your thinking about 'posture' developed?
 - b. Has anything remained the same?
 - c. Do you feel any 'easier' in your body through a rehearsal, and while singing?
3. How do you think about breathing for singing now?
 - d. How has your thinking about your body changed as you exhale, inhale, sing and refresh your breath?
 - e. What has remained the same?
 - f. How has your experience of your breath changed? Does your breathing feel any different?
4. How do you give attention to your vocal sound production now, when you begin to and as you sing?
 - a. How has your thinking about your sound, your resonance, and your body use grown or expanded?
 - b. What has remained the same for you?
 - c. Do you experience, feel, hear changes in your tone quality or range?
5. What principles of the Alexander Technique seem most pertinent and clear to you after a unit of lessons?
 - a. Do any words or ideas have new meaning to you? (i.e. Straight, Relax, Up, Collapse, Hold, Release, Free, Forward, Allow, Let, Sending, Thinking, Use)

Journal Questions

Week One

1. Describe your thoughts, feelings, and physical sensations during the process of the Alexander Technique lessons in classes this week.
2. Describe your vocal experience in choral class after the lessons.
3. Did you notice any differences in your tone, breathing, or posture?

Week Two

1. Describe your thoughts, feelings, physical sensations during the AT lesson in the vocal warm up this week.
2. Tell me about your vocal experience after warm up and after class.
3. What have you noticed about:
 - a. tension as you breathe and sing?
 - b. your head-neck relationship to stance & the movement of breathing?
 - c. your tone or throughout your range this week?

Week Three

1. Describe your thoughts, feelings, and physical sensations during the Alexander Technique lesson and in choir this week.
2. What, if anything, did you observe during this class or afterward, about your head-neck-back relationship (the "Primary Control") to your preparation for and engagement in singing?
3. How are your vocal challenges (tensions, range, sound quality, vowels, difficult song phrases, etc.) affected by your attention to your "self-use" so far?

Week Four

1. Describe your experience during the directions that Dr. Minnes Brandes gave while warming up in choir this week: "soften the knees and let the arms hang," "notice your balance," "release the jaw," "don't throw your head back when you go up the scale," "free the neck," "think up along the spine," "smile behind your eyes."
2. What did you observe about your self-use as you were standing, breathing, and singing? Was there any difference between your vocalizing in the warm up and the rest of rehearsal?
3. What did you notice in the student demonstrations that related to your own habits of use? What is unclear or confusing about the Alexander Technique so far as you've seen it, heard it, tried it?

Week Five

1. Comment on your observations of Jillian or Kathryn during the singing/AT demo, and your own warm up on the floor in Monday's class. Did you receive hands-on work with Dr. Brandes? What did you hear, see, or sense in yourself or others who were singing near you?
2. Describe your experience of sending directions to your body during Wednesday's warm up while Dr. Brandes made suggestions. Were there any noticeable shifts in your stance, your breathing, or your singing?
3. Do you 'free the neck' or 'let the head go forward and up' or 'allow the back to lengthen and widen' more often, or more easily now, or not at all after these 5 weeks? What are you aware of?

Week Six

1. Comment on your experience during the warm-up with Sandra Head this week. What did you notice about your breathing, beginning with an exhale, your rib movement? Where do you work too hard?
2. Did Dr. Brandes work with you? How did you respond?
3. Describe the most noticeable shifts in your awareness and 'use' in your stance, breathing, and singing since the AT lessons began 6 weeks ago.

Appendix C

UBC Research Ethics Board Approval



CERTIFICATE OF APPROVAL - MINIMAL RISK

PRINCIPAL INVESTIGATOR: James Scott Goble	INSTITUTION / DEPARTMENT: UBC/Education/Curriculum Studies	UBC BREB NUMBER: H06-03947
INSTITUTION(S) WHERE RESEARCH WILL BE CARRIED OUT:		
Institution	Site	
N/A		
Other locations where the research will be conducted: Sir Winston Churchill Secondary School 7055 Heather St. Vancouver		
CO-INVESTIGATOR(S): Karen A. Parent		
SPONSORING AGENCIES: N/A		
PROJECT TITLE: Applying Alexander Technique in the High School Choral Rehearsal		

CERTIFICATE EXPIRY DATE: February 27, 2008

DOCUMENTS INCLUDED IN THIS APPROVAL:	DATE APPROVED: February 27, 2007	
Document Name	Version	Date
Protocol: Research Proposal	N/A	February 8, 2007
Consent Forms: Parent/Guardian Consent	N/A	February 20, 2007
Assent Forms: Subject Assent	N/A	February 20, 2007
Questionnaire, Questionnaire Cover Letter, Tests: Interview Script	N/A	December 16, 2006
Other Documents: Vancouver School Board Approval	N/A	January 25, 2007

The application for ethical review and the document(s) listed above have been reviewed and the procedures were found to be acceptable on ethical grounds for research involving human subjects.

**Approval is issued on behalf of the Behavioural Research Ethics Board
and signed electronically by one of the following:**

- Dr. Peter Suedfeld, Chair
- Dr. Jim Rupert, Associate Chair
- Dr. Arminee Kazanjian, Associate Chair
- Dr. M. Judith Lynam, Associate Chair