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PERSONALITY TRAITS AND MUSICAL INTERESTS OF ADULT LEARNERS

IN AN INSTRUMENTAL MUSIC PROGRAM

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By

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A DISSERTATION APPROVED FOR THE
DEPARTMENT OF MUSIC

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DEDICATION

I dedicate this dissertation to my parents

Bob and Mary Griffith

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God places many journeys before us. Some are short and easy while others are longer and test our faith and strength. The final part of my graduate career has taken the latter road. However, in retrospect, I can see that sometimes God places the longer journey before us so we have more opportunities to stop and “smell the roses” and learn from the process and journey. This dissertation passage to its completion, has taken far longer than I ever imagined, and has been filled with numerous pitfalls, lapses, and setbacks. There were times when I even felt that I had been beaten and the end would be out of reach. However, by God’s grace, my faith in the importance of this project and my hope and desire that I could see it to completion kept me going and I was able to persevere to the end.

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and supportive commitment to academic excellence is truly inspirational and will always be appreciated. Most of all, thank you for not giving up on me.

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ABSTRACT

The purpose of this study was to assess the needs and musical interests of New Horizons Band members. A secondary purpose was to determine the relationship between personality traits and musical interests. An anonymous *Music Interest Questionnaire* was used along with the *International Personality Item Pool representation of the NEO-PI-R™* (IPIP-NEO).

The survey yielded 127 respondents ($N=127$) from 18 states and one Canadian province. The survey categories included demographic information, life experiences, prior musical experiences, musical preferences, health issues, needed accommodations, and the IPIP-NEO personality profile.

Participants were predominantly female, married, with an average age of 61.05. The majority resided in the Midwest area of the United States, was retired, and had earned an estimated gross annual income of \$75,238.66. Most of the participants held bachelor's degrees.

The IPIP-NEO was used to investigate relationships between musical performing preferences, musical interests, importance of lifelong learning, and rehearsal activity preferences. Openness to experience, extraversion, and agreeableness were the only domains that revealed moderate trends between variables.

Moderate trends were discovered between openness to experience and interest in listening to professionals, listening and playing styles preferences, performing preferences, the importance of lifelong learning, and willingness to participate in

rehearsal activities. Moderate trends were discovered between extraversion and willingness to move to music as well as between agreeableness and willingness to sing.

Respondents indicated their preferred rehearsal time was morning followed by evening. The greatest physical limitation indicated by subjects was arthritis/rheumatism closely followed by the need for large print music.

CHAPTER I

Anyone who stops learning is old, whether at 20 or 80. Anyone who keeps learning stays young. The greatest thing in life is to keep your mind young.

Henry Ford (Quoteworld.org, 2004)

INTRODUCTION

The world's population is aging at a rate unprecedented in history. As the American population increases and the retirement age lowers, the aging population may find it has more time for leisure activities. The United States experienced its highest population growth from 1990 to 2000, with an increase of 13.2 percent. Since 1990, the number of people 65 years of age or older has increased by 12.0 percent (U.S. Census Bureau, 2001b). Along with the elderly population increasing, many retirees are living longer and the average age of retirement has declined. With the older adult population increasing, retiring earlier, and living longer, today's society is challenged with making senior adults' retirement years more meaningful and satisfying (Cross, 1981; Verduin & McEwen, 1984; Wise, 1997).

The 21st century will produce a different kind of older adult, one who is healthier, better educated, and more financially secure. This is a complete paradigm switch from the older adult population that entered the 20th century. Consequently, our society needs to be prepared for the emergence of active older adults. Numerous seniors in today's society aspire to remain active, travel, learn new things, and seek

to lead full and active lifestyles. With such desires, many older adults will seek lifelong learning activities (Cross, 1981; Verduin & McEwen, 1984; Wise, 1997).

Many older individuals will experience more productive years beyond retirement (Cross, 1981; Verduin & McEwen, 1984; Wise, 1997). Lifelong learning activities can serve as a transition from the workforce to retirement. The older generation that devoted most of their lives to working and advancement in their professional careers, will need to identify ways to transition successfully from previous roles to new and different ones. It is common for an adult to be familiar with continuing education in the workforce (Cross, 1981). This trend can help an individual successfully transition from the workforce to retirement. It is not unrealistic to expect an older adult to pursue educational activities upon leaving the workforce. Lifelong learning activities offer the older adult a means of identifying and maintaining a new purpose in life, either as an avenue to other activities, or as a way to achieve self-actualization and socialization (Cross, 1981; Merriam & Caffarella, 1999; Verduin & McEwen, 1984).

Today's older adult population has experienced more formal education than their parents, and, in turn, the next generation of older individuals is likely to have an even more extensive educational background than seniors of today (Cross, 1981; Verduin & McEwen, 1984; Wise, 1997). Elders from future generations will likely seek continued personal growth in their retirement years and as a result there will be an increased demand for educational programming. With the emergence of more educated older adults, the education field can help meet their needs and interests by developing more innovative educational programs.

Our society has moved from viewing education as a way to prepare for life to accepting it as an ongoing part of life (Cross, 1981; Verduin & McEwen, 1984). This shift to a lifelong learning society brings with it a lifetime of educational choices. Today's adult population differs from previous generations by the sheer volume and diversity of the learning opportunities that are available. The choices are vast and may include a variety of activities such as cake decorating classes, financial planning sessions, and art classes to name a few.

Adult students usually come into a learning environment with a defined set of goals and expectations, hoping that what they will find will be meaningful and relevant (Cross, 1981). Older adult students also bring to the learning environment an extensive background of varied life experiences. Educators should not assume that adult students are motivated by the same needs and interests as traditional younger students. Older students are generally voluntary, self-motivated learners. Therefore, if the education experience proves to be ineffective in meeting their needs, they may drop out of such a program. Some adult students may even feel threatened by the classroom situation if their prior learning experiences were negative (Cross, 1981; Wlodkowski, 1999). Since adult learners have preconceived goals, expectations, and an array of life experiences and educational backgrounds, it is necessary for adult educators to identify the differences, needs, and preferences of the older adult student. Once the objectives are identified, educators can make appropriate modifications to the curriculum and learning environment (Cross, 1981; Wlodkowski, 1999).

Professionals working with older adults need to understand the physical and psychological effects of aging along with older adults' needs and preferences. The aging process is a natural and multifaceted phenomenon with relatively few abrupt changes. In regards to music and aging, research suggests that listening to music and playing a musical instrument may assist with certain health issues. This type of activity may actually aid in slowing the rigors of aging by relieving stress symptoms and assisting in maintaining – or even improving – physical agility and motor skills (Gibbons, 1977, 1985). In addition to physical benefits derived from participating in musical activities, there are benefits to one's emotional well-being. For example, participating in an activity-based program can help older adults deal with problems at home, such as loneliness, loss of a loved one, or responsibilities of being a primary caregiver. These activities give older adults the opportunity to socialize with others, thereby making them happier (Merriam & Caffarella, 1999).

Prior to designing a program or curriculum for older adults, educators are encouraged to research literature regarding adult learning and learning style preferences. Andragogues (teachers of adults) can benefit greatly from studying similar programs established for older adults (Darrough, 1990). Understanding an individual and/or group's personality preference(s) provides information for those developing programs for older adults. One tool for identifying personality preferences is the *International Personality Item Pool representation of the NEO-PI-R™* (IPIP-NEO) created by John Johnson (2001). This instrument uses the “Big Five” or Factor Five Model and is based on the works of Goldberg and Costa and McCrae.

Research indicates that personality preference or type is present to some degree in all people (Costa & McCrae, 1996; Hogan & Champagne, 1980; Jung, 1923; Myers, 1962). The study of personality traits could help professionals working with older adults, not only with classroom teaching but also program development and design.

The results of this research study may be useful in several ways. First, they may increase our understanding of how big five personality factors influence achievement outcomes through performance avenues such as New Horizons Band. Such knowledge could be applied to developing theories of how the Five Factor Model influences achievement behavior in educational and organizational settings. Second, the outcomes of this study may contribute to research in the use of the Five Factor Model for program developmental purposes. Although personality is assumed to be relatively stable in adulthood, it may be possible to train people to change specific behaviors that are associated with the traits. Specifically, if extraversion and neuroticism are found to influence performance preferences in predictable ways, such as singing or playing a passage alone or with others, measures of the Five Factor Model traits could be used to suggest rehearsal strategies for individuals, small groups, and large ensembles (Markham & Markham, 1995; Williams, 1997).

In regards to music education, program design, and older adults, andragogue Roy Ernst envisioned a music program for the older adult population (age 50 and above) of Rochester, New York. Ernst's goal was to reach out to individuals who had never played a musical instrument as well as people with previous instrumental

musical experience. As a result of this vision, the first New Horizons Band (NHB) was established in 1991 (Ernst & Emmons, 1992). Currently, the NHB has become an international organization, expanding to include not only bands but orchestras as well (New Horizons Band, 2005).

Organizations such as the New Horizons Bands, Choirs, and Orchestras have realized that educational programs for older adults fulfill a specific purpose within the numerous educational programs available today (Ernst & Emmons, 1992; New Horizons Band, 2005). This organization (NHB) along with others, reaches out and helps successfully meet the needs of many older adult learners. However, despite the success of the organizations there is emerging evidence of a need for increased understanding and program alternatives for older adults.

The needs, interests, and expectations of present and future adult learners will likely be significantly different than those of their parents and grandparents. Adults will have access to more advanced technology, better health care needs and practices, and the potential for greater wealth. With such advancements, education must keep up with our rapidly changing elderly population.

The present study will contribute to the limited body of research aimed exclusively at the music education of older adults, focusing on interests and preferences of a selected target group – New Horizons Band (NHB). This study also seeks to discover more about older adults' personal learning styles in relation to their needs and preferences. It is anticipated that the discoveries from this study will give instructors and program designers a better means of understanding what factors

are important when selecting educational activities and designing programs and curriculum.

Purpose of the Study

The purpose of this study was to discover the needs and musical interests of New Horizons Band members. A secondary purpose was to determine the relationship between musical interests, preferences and personality traits.

The purpose was achieved by the use of an anonymous *Music Interest Questionnaire* (MIQ) designed by the researcher and the *International Personality Item Pool representation of the NEO-PI-R™* (IPIP-NEO) designed by Johnson (2001). Information gathered from this study will help teachers better understand the musical interests of adult learners and the relationship between adults' musical interests and their personality styles. The findings of this study may have implications for music program design.

Research Questions

The purpose of this study was accomplished by investigating the following questions:

1. What demographics, level of participation, musical interests, expectations, and preferences are evident among NHB members?
2. Is there a relationship between musical performing preferences, musical interests, importance of lifelong learning, rehearsal activity preferences, and IPIP-NEO personality traits?
3. Are there prevalent health issues and needed accommodations within the older adult population participating in a musical activity?

Definition of Terms

Throughout this study, key terms will be defined as follows:

AARP (American Association of Retired Persons) – “The largest senior advocacy group in the United States. The AARP lobbies government, supports research on older people, and informs members about political issues” (Novak, 1997, p. 385).

Adult Learning – “The process of adults gaining knowledge and expertise,” (Knowles, Holton, & Swanson, 1998, p. 124). More than with children, adult learning should involve a shared control of the learning environment. Adults have pre-existing knowledge and experience which necessitate different approaches to learning.

Educational Gerontology – “The study and practice of instructional endeavors for and about the aged and aging” (Peterson, 1990, p. 3).

Gerontology – The science or study of aging which includes three major elements: biological, psychological, and social (Ward, 1980).

Lifelong Learning – Term applied to formal, informal, or self-directed learning that occurs with non-traditional age students (persons other than those 5 through 21 years of age) and continues throughout the adult life span (Hoffman, 1980; Verduin & McEwen, 1984).

Nontraditional Learner – Nontraditional learners are usually over the age of 21 but are not defined strictly by age. Nontraditional learners are students with life experiences and circumstances differing from the typical traditional student who enters his or her college career for the first time right after high school graduation.

These experiences and circumstances include, but are not limited to adults who are: married, divorced, or single; parents; caring for elderly parents; full-time or part-time employees; distance learners; returning to college or a learning experience after a period of time in the work place or after working in his or her home (Cross, 1981; Hoffman, 1980; Verduin & McEwen, 1984).

Reminiscence – Any reflection on past experiences and events, either spoken or non-spoken.

Assumptions and Delimitations

Data collection in this study relied upon participants' self-reporting. This study was based upon the assumption that respondents would answer honestly and accurately.

This study included the use of a web based survey instrument. If a NHB participant did not have access to the Internet, he/she was not able to participate in this research study.

The NHB has expanded and now includes orchestras, choruses, and other various ensembles as well as bands. The *Musical Interest Questionnaire*, focusing on band, was the survey instrument used in this study. However, with modification, the instrument could be adapted for use with other types of ensembles.

Overview of Proposed Dissertation

This dissertation is organized into five chapters with supporting appendices. It documents the development, implementation, and results of a research study designed to discover the needs and interests of older adults participating in an instrumental music program. This chapter (Chapter One) presented the problem,

rationale, purpose, delimitations, and research questions guiding the research study. Chapter Two, the literature review, furnished a detailed background of related literature dealing with social gerontology, process of aging, needs and capabilities of older adults, intelligence and cognition in older age, models of adult learning, gerontological teacher preparation, and program design. Chapter Three identified the research design, participants, instrumentation, procedures, and data analysis plan. Chapter Four presented the findings of the research and analysis of the data collected in the study. Chapter Five presented conclusions, implications, and recommendations for further research.

CHAPTER II

RELATED LITERATURE

Introduction

The primary purpose of this study was to discover the needs and musical interests of New Horizons Band members through their responses to an anonymous *Music Interest Questionnaire* (MIQ) designed by the researcher. A secondary purpose was to determine the relationship between musical interests, preferences and personality traits as measured by the short version of the *International Personality Item Pool representation of the NEO-PI-R™* (IPIP-NEO).

This chapter presents literature relevant to learning in older adults and their personality traits. The chapter is divided into the following sections to facilitate clarity and understanding of the topic: (a) process of aging, (b) lifelong learning, retirement, and leisure activities, (c) myths and stereotypes of aging along with music preferences in older adults, (d) cognitive factors in aging and learning, (e) reminiscence and music therapy, (f) educational gerontology, (g) pedagogy and andragogy, (h) program development, (i) New Horizons Band, and (j) learning styles and personality traits.

Process of Aging

Understanding the phenomenon of aging and its effects on the adult learner is central to understanding adult education. Our society generally equates aging with social isolation, frailty, disease, adversity and loss, and changing life phases as a person ages. Research indicates there is not one single cause of aging, but

multiple causes (Lesnoff-Caravaglia, 2000). While some age-related changes are unavoidable, others may be improved or avoided through lifestyle choices and special accommodations.

Due to the nature of this study, only those human biological functions directly related to music performance and activities associated with participating in a musical event will be discussed. Biological discussions include the following systems and senses: integumentary, skeletal, muscular, nervous, respiratory, and digestive systems. In addition, sensory processes, such as vision and auditory senses, are included.

Integumentary System

The integumentary system provides an outward visual sign a person is experiencing the aging process. Examples include wrinkling and color distortion of skin and graying hair. In spite of the visual physical changes, the skin is capable of protecting our bodies longer than the “theoretical human life span of 120 years” (Atchley, 1987, p. 38). The “highly visible system, which frequently affects the social and psychological aspects” of older adults is very complex with many changes occurring in the latter part of life (Lesnoff-Caravaglia, 2000, p. 23).

The body’s sweat glands and layers of blood vessels help regulate body temperature. As body temperature rises, blood vessels dilate allowing more blood closer to the skin’s surface. Sweat glands produce moisture, which evaporates and cools the body. As people age, they have fewer sweat glands; thus, the cooling process does not operate as well. As a result, older adults are prone to heat exhaustion, stroke, or death (Lesnoff-Caravaglia, 2000).

Along with the concern of over heating, older adults may have difficulty keeping warm. The elderly tend to feel cooler than their younger counterparts. This is due to a reduction of blood flow to the skin. As a result, older adults are “cooler” than their younger counterparts (Lesnoff-Caravaglia, 2000).

Skin is a protective device against the sun and becomes more vulnerable with age. Along with the need to control the body’s temperature it is important to avoid extended periods of exposure to ultraviolet sun rays. Extensive exposure to the sun causes the texture and general appearance of a person’s skin to change over a period of time (Lesnoff-Caravaglia, 2000).

As a person ages, the skin becomes thinner and has a reduced sensitivity to pain and touch. This can obscure sensations associated with cuts, scratches, and abrasions (Botwinick, 1984). The sense of touch increases to approximately the age of 45. After which, the sense of touch becomes less acute and sensitivity to pain decreases as well. As a result, older adults become more susceptible to infections and skin irritations (Knox, 1977; Lesnoff-Caravaglia, 2000).

The final consideration of the integumentary system is the loss of fat from subcutaneous tissue. With the loss of body fat or body padding, bony prominences tend to protrude possibly causing discomfort and increasing the risk of potential skin problems. With less fat to cover and insulate the body, another issue is an increased tendency to lose a greater amount of body heat (Lesnoff-Caravaglia, 2000).

The study of the integumentary system is helpful when working with older adults in a musical setting. It is necessary to consider the temperature (both indoor

and outdoor), location, and length of rehearsals and performances. If preparing an outdoor event, limit exposure to direct sunlight and provide ample breaks for movement and water (Lesnoff-Caravaglia, 2000). The information provided can help educators and program designers develop programs that will best fit the needs of older adults.

Skeletal, Muscular, Nervous, and Circulatory Systems

Changes in the skeletal system can greatly affect an older person's lifestyle. It is normal for some stiffness to occur in many parts of the body as a person ages. Many individuals actually develop some form of arthritis which could, over time, cause sporadic interference and great loss of mobility when dealing with everyday physical movements. This may restrict a person's mobility to varying degrees (Atchley, 1980).

Arthritis is a general term that describes common inflammation of the joints. As a person ages, joints rub together and as a result cartilage may wear down and become thinner. When this occurs, eventually bone may rub against bone causing limited movement in joints. To counteract this phenomenon, some older adults are encouraged to exercise and use the afflicted joint(s) (Lesnoff-Caravaglia, 2000).

Most arthritic sufferers are treated with medication. However, many physicians and physical therapists encourage a prescribed exercise and movement program to work the problem areas. Arthritis sufferers should consult a physician before engaging in new physical activities that incorporate the use of affected joints. It is encouraging to note many arthritis sufferers actually benefit from playing a

musical instrument. Benefits may include a reduction of arthritic damage as well as mental/intellectual stimulation (Foster, 1982).

The skeletal and muscular systems rely on each other and are closely related. Together, these two systems enable humans to move and perform large and small motor movements (Lesnoff-Caravaglia, 2000). As a person ages there is a gradual reduction in strength and stamina, frequent stiffness and tension, certain movements become awkward, and coordination diminishes (Atchley, 1980; Bright, 1972; Hess & Markson, 1980; Lesnoff-Caravaglia, 2000). The rate and amount of physical decline largely depends on how well an individual continues to use and maintain his or her body. Loss of muscle mass and tone as well as the loss of independence, regarding certain tasks, can lead to low self-esteem and serious depression. Older individuals may also experience a reduction in strength and posture, which can restrict the amount of controlled exhalation (Knox, 1977).

The nervous system controls body movements with the help of the skeletal and muscular system. It also transports sensory information both inside and outside the body. This system is “involved in activities that produce conscious remembering, thinking, interpretation, emotions, and personality traits” (Lesnoff-Caravaglia, 2000, p. 54). By the time a person reaches late adolescence, the nervous system plateaus in speed and accuracy. Once a plateau is reached, there is a gradual decline in capacity through the lifespan of the person. Because the nervous system’s capacity far exceeds the information load involved in daily operation, this decline is subtle and rarely noticeable until the final stage of life (Knox, 1977).

The nervous system is closely linked to the circulatory system. In order for the brain to function properly, the blood flow needs to be free of constriction. If a person experiences hardening of the blood vessels in the brain there may be a circulation problem, reducing the speed in which the brain can process information and send signals (Atchley, 1980).

Knowledge of the skeletal, muscular, nervous, and circulatory systems can aid in activities, which promote greater and more fluent participation, as well as aid in program planning. For example, andragogues can research the students' needs, then modify and incorporate activities into lesson plans that will benefit the adult learner. Bright (1972) suggests incorporating the knowledge of the aging process into class activities. Many older adults experience stiffness and tension in the head and neck area which may lead to headaches and general muscle discomfort. When working with older adults, an educator might utilize knowledge of the muscular system by incorporating rolling movements into the daily activity plan. As far as program planning, knowledge of the skeletal, muscular, nervous, and circulatory systems can aid in instrument selection and promote positive self-image (Bright 1972).

Respiratory System

The respiratory system works in conjunction with other systems of the body, such as the skeletal, muscular, and circulatory. When a person begins to experience rigidity in the body, it is possible for the respiratory system to be affected with a decline in air capacity as well as the ability to control exhalation. Since the rib cage expands and moves with breathing, there is the likelihood of reduced lung

expansion and an increased difficulty in breathing if the ribs show signs of inflexibility (Lesnoff-Caravaglia, 2000). The amount of air a person can expel also decreases with age. Knox (1977) states “the amount of air an adult can move through the lungs in fifteen seconds (maximum breathing capacity) declines about 40 percent between age 20 and 80” (p. 264). Other bodily changes may include upper respiratory congestion and degeneration of muscles of the larynx (Knox, 1977).

Along with rigidity and problems with expulsion of air, physical characteristics can affect the respiratory system as well. For example, a person’s height can affect the amount of oxygen delivered throughout the body. The taller the person, the greater the chance he/she may experience respiratory problems. This phenomenon is due to the fact a larger body requires greater respiration coverage and this becomes more difficult for some (tall or large) adults as they age (Lesnoff-Caravaglia, 2000).

Regarding internal organs, the lungs actually lose some elasticity with age and the air is not distributed equally resulting in an increase of unused airspace. This causes insufficient oxygenation of the blood supply. Results are a poor supply of oxygen to the body, which can cause fatigue. The lack of sufficient oxygen in the blood can also affect a person’s memory. People, who often feel dizzy or feel as if they cannot cope with everyday life issues, could actually be suffering from oxygen deprivation (Lesnoff-Caravaglia, 2000).

In summary, experts agree when breathing exercises are implemented and done with music, some patients have increased ventilation capabilities (Bright,

1972). Good posture can also affect a person's respiration or breathing and has psychological benefits along with improved respiratory function. A person with a tall or straight posture opens the chest cavity allowing easier breathing (Lesnoff-Caravaglia, 2000). In regards to a student with asthma or emphysema, some physicians encourage the study of a musical wind instrument. Participation in a musical activity will give the older adult a sense of achievement and aid in breath control in an environment that is comfortable and fun for the person with respiratory disorders (Bright, 1972).

Digestive System

It is common for many elderly adults to experience the feeling of a dry mouth more frequently than their younger counterparts. As a person ages, the body produces less saliva in the mouth resulting in a feeling of dry mouth. With this feeling of dryness, an individual may experience a greater need to hydrate the body. This feeling of dry mouth can be associated with systemic dysfunction or the use of certain medications. Another activity that can cause a person to experience a dry mouth is breathing through the mouth as opposed to the nose (Lesnoff-Caravaglia, 2000).

Sensory Processes

Sensory processes, such as vision, hearing, touch, taste and smell, become less acute in the later stages of life. The senses are "the means through which the human mind experiences the world both outside and inside the body" (Atchley, 1980, p. 41). Our senses simply pick up information and carry it to the brain therefore enabling people to have a "sensory experience" (Atchley, 1980, p. 41).

With age, there is a reduction of sensory input and it becomes more difficult to discriminate at the lower levels of intensity (Knox, 1977; Lesnoff-Caravaglia, 2000).

Vision

It is normal to experience some type of vision decline with age. Research indicates that by the age of 45, the number of people who develop defective vision (less than 20/40) increases. By the age of 75, about 85 percent of the population has less than 20/40 vision (Hess & Markson, 1980). In addition, among people in the age group of 60 to 80, about 80 people per 1,000 are blind (Kalish, 1977).

As the eye begins to age, there is a reduction in the quantity and quality of visual information that is received (Knox, 1977). Generally, the first signs of vision deterioration begin in the late 30s or early 40s (Botwinick, 1984; Kalish, 1977). Some of the expected changes may occur with the muscular structure, elasticity and shape of the eye, changes in retina and pupil, and possible development of cloudiness or yellowing of the eyes lens.

Changes in the elasticity, shape of pupil, and muscular structure of the eye affect visual acuteness. The lens must change shape in order for a person to be able to focus both near and far. As a result of loss of muscle elasticity, the eye begins to lose the ability to change shape and therefore loses the capability of focusing on objects which are near. With this loss, people become farsighted and are unable to see things clearly at a close distance. A person's tendency to become farsighted increases tenfold between the age of 10 and 60, with little or no increase after that

time. For most people, the use of reading glasses or bifocals will help correct vision, facilitating function in daily life.

Another aspect of visual acuity that changes with age involves the retina and pupil. The size of a person's pupil gradually diminishes during adulthood; as a result, smaller amounts of light enter the eye (Atchley, 1980; Knox, 1977). On the average, a 60 year old person's eye allows only one third as much light in as does the eye of an average 20 year old person (Atchley, 1980). As the pupil changes size, it limits the amount of light that can reach the retina, therefore generating a need for greater illumination (Atchley, 1980; Botwinick, 1984; Cross, 1981). Many people over the age of 50 are aware of the need for bifocals. However, fewer older adults realize the need for greater illumination (Cross, 1981). If an adult has vision problems it might be helpful to raise the illumination and/or use larger print materials (Atchley, 1980; Botwinick, 1984; Cross, 1981).

Retinal changes may also affect sense of depth perception. This problem intensifies when illumination is inadequate. Problems might include walking and driving; which require a person to focus on a variety of things such as the size and height of objects like curbs, steps, pedestrians, signs, other vehicles, and traffic lights. Depth perception and the ability to shift or quickly change focus become delayed to various degrees with age (Botwinick, 1984; Lesnoff-Caravaglia, 2000). Greater illumination is a critical factor in promoting safe conditions in the classroom, and rehearsal area. If more illumination is needed for safe driving, a program director might take into consideration the time of day rehearsals and performances are held.

As well as diminished depth perception, a person may have difficulty seeing clearly at night or in a dimly lit area. This reduced ability to see in the darkness is a normal part of the aging process. As the human eye becomes adapted to dark surroundings, the minimum intensity of light that can be seen diminishes resulting in decreased ability to see clearly at night (Botwinick, 1984; Knox, 1970; Lesnoff-Caravaglia, 2000). For example, a person may have difficulty judging the difference between steps when the hallway and walls are of the same color intensity.

Vision problems can be exaggerated by the fact that older people experience more glare from intense light sources. Researchers agree it is crucial to make the environment more functional for the elderly and provide an atmosphere with evenly distributed or balanced light sources (Lesnoff-Caravaglia, 2000). Increasing the amount of light is not necessarily the best solution for all older adults. Evenly distributing the light can be done by adjusting the light source to where the proper amount of light needed is available, yet, not so much as to cause a glare.

Another visual obstacle an older adult may encounter is a problem with his or her peripheral vision. As the eye ages, there is a progressive reduction in the number of rod cells in the retina which lead to restricted peripheral vision (Knox, 1977). With this occurrence, it is possible that older adults may find it difficult to notice movement in their peripheral vision or out of the corner of the eye.

Another change in vision occurs when the lens of the eye begins to cloud or yellow. With this change, a person experiences a diminished ability to differentiate color and brightness as well as the ability to see and adapt in darkness (Botwinick, 1984). Some colors of the spectrum (blue, green, and violet) begin to fade and

blend, making it difficult for an older adult to distinguish and match blues, purples, and greens. However some older adults find that the colors red, yellow, and orange are generally easier to see. With this change in color discernment, a person's depth perception or ability to judge distances may decrease (Atchley, 1980; Botwinick, 1984).

There are many ways in which an educator of adults can assist the adult learner with vision impairments. Knox (1977) suggests:

1. Obtain and use corrective lenses if they are needed.
2. Increase contrast by increasing illumination, reducing glare, sitting close, or using type that is larger and has greater contrast with the background.
3. Allow longer time for exposure.
4. Provide information in combined audio and visual form.
5. Simplify sequences of information or exposure; and allow more time for adaptation between lighted and darkened surroundings (p. 282).

Hearing

Many older adults experience some hearing loss in their lifetime either from the process of aging or environmental situations. Some hearing loss is expected and is considered to be a normal part of the aging process. For example, the loss of ability to hear certain frequencies and distinguish between neighboring frequencies, difficulty distinguishing between certain high-pitched sounds, and difficulty hearing and understanding fast paced speech, especially if excessive background noise is present (Atchley, 1980; Botwinick, 1984; Hess & Markson, 1980).

Age related hearing impairment is called presbycusis and is first noticed with the loss of high pitches. Approximately 75 percent of people between the ages of 75-79 have some type of hearing difficulties as compared to the age group of 45-

54, which experiences about 19 percent impaired hearing (Hess & Markson, 1980). However, an individual can actually start to experience some hearing loss as early as 20 years of age (Atchley, 1980; Knowles, 1977).

Diminished hearing due to environmental situations primarily affects the older male population (Lesnoff-Caravaglia, 2000). In general, men tend to experience greater losses of sensitivity at an earlier age. This is due in part to the fact that men are more prone to “noise pollution” than women because their jobs place them in noisy environments (Atchley, 1980; Botwinick, 1984).

A diminished ability to hear certain frequencies and distinguish between neighboring frequencies is another hearing impairment due to age (Atchley, 1980). Many people experience greater difficulty hearing and distinguishing between high pitched sounds. Most find that the lower pitches are easier to hear and distinguish (Botwinick, 1984).

Certain high-pitched sounds are particularly difficult for some older people to differentiate. If an adult has difficulty hearing he/she may have problems understanding and/or communicating. The letters “f”, “s”, “k”, and “sh” are examples of high-pitched sounds which may be problematic (Botwinick, 1984; Kick, 1989). Since women, children, and some teenagers have higher pitched voices, it may be more difficult to understand and distinguish their speech than that of men (Botwinick, 1984).

Some older adults may have difficulty hearing if a person speaks too quickly and if excessive background noise is present. When speech is rapid, it may cause sounds to run together, making it practically impossible to differentiate, thus

impairing understanding (Botwinick, 1984). Researchers note that with age there is a reduced ability to filter out background noise such as traffic, music, and television, resulting in distraction and possible confusion (Atchley, 1980; Botwinick, 1984; Kick, 1989).

Knox (1977) suggests several ways in which an adult educator may assist older adults with hearing problems:

1. Recognize the fact hearing loss is often accompanied by an increase in bewilderment and insecurity due to the loss of background sound and a growing sense of deadness of the environment. Understanding and support are especially important.
2. Provide sound amplification at the source if feasible, such as an effective public address system for groups.
3. Encourage the use of a hearing aid if one is needed. Fewer than 1 out of 200 persons under age 65 use a hearing aid, compared with more than 1 out of 20 over the age of 65.
4. Increase the signal-to-noise ratio by satisfactory acoustics and reduced background noise.
5. Enable the person to use facial and lip cues.
6. Enunciate clearly, with special attention to difficulties related to consonants, mumbling and dropping the voice at the end of a phrase (p. 284).

If an older individual experiences hearing difficulties, he/she may find a variety of ways to compensate and enhance communication efficiency. Typically, an older adult will use visual cues such as lip reading, facial expressions, gestures and/or other non-verbal indicators to fill in the gaps where he/she is unable to hear (Clark & Mills, 1979).

When working with senior adults, it is important to understand and know how to accommodate a population that may be experiencing or will experience a hearing loss as a result of the process of aging. Because of hearing impairment, sounds may need to be made gradually louder as frequencies increase (Atchley,

1980). Due to some older adults' diminished ability to hear certain frequencies and/or distinguish between neighboring frequencies, some older people enjoy musical selections that consist primarily of lower pitches. With the proper acoustic surroundings, older adult learners may discover they are once again able to enjoy a wider variety of music.

Age related deficiencies may be crucial to the success of an individual or group. Experts agree that the environment should be conducive to learning and accommodate the needs of the older adult. The elderly are more likely to participate in activities and programs which meet their basic needs both intellectually and physically (Bright, 1972; Curran, 1982; Kellmann, 1984).

Lifelong Learning

Our older American population is healthier and living longer than past generations. As late as 1900, the average life expectancy was 48 years (Rybash, Roodin, & Hoyer, 1995). With modern technology and medical advancements, the life expectancy range has significantly expanded from the early 20th century. Recent figures show the range to be from 76 to 78 years of age or older (U.S. Census Bureau, 2001c).

In today's society, the lives of older individuals are full of choices. One of the most important decisions for an elderly person is how to spend the remaining years of his or her life, and at the same time, make those years meaningful and satisfying. Each person's choice of what he/she wants to do in the later years will depend to a great extent on his or her lifelong learning habits and desires (Merriam & Caffarella, 1999; Rybash, Roodin, & Hoyer, 1995).

Lifelong learning refers to the educational influences a person may experience throughout his or her life. These influences may include both formal and informal avenues. In general, the current older population is better educated than any previous group of older adults and the idea of lifelong learning is not a new concept to these individuals (Cornman & Kingson, 1996). Many senior adults have experienced and accepted learning and continuing education in the work place as an essential part of their career development. With this trend already in place, it is not impractical to expect older individuals to engage in lifelong learning activities after retirement and/or during their leisure time (Merriam & Caffarella, 1999).

Transitioning from the work force to retirement can be eased through the participation in lifelong learning activities. These activities may offer the senior adult a way of discovering and maintaining a new purpose in life. For example, participation in an activity can serve as either a path to other activities and services, or as an end in itself by providing socialization and enabling the older adult to realize his or her maximum potential (Merriam & Caffarella, 1999; Ward, 1984). Participation in educational activities may be beneficial to the emotional and mental well being of older adults and can help with transition into what may be a lengthy retirement period.

Retirement

There are many stages in a person's life. During the early stages of one's life—infancy, childhood, adolescence, and young adulthood – we generally receive necessary help and assistance from our parents (primary socialization). During adolescence, people begin to develop and discover themselves and what they might

want to do in the future or next stage of life (secondary socialization). After adolescence, a person enters young adulthood. During this time, many individuals discover, develop and refine a possible choice of profession (occupational socialization). It is possible, too, that one also begins to think and start planning for the future and even retirement during young adulthood. For many, preparation for the retirement process continues throughout a person's adulthood and goes on until reaching retirement (Jonas & Jonas, 1973).

When retirement was first established, the chronological age of 65 became recognized as the age at which an adult became non-productive (Kohut, Kohut, & Fleishman, 1983; Lesnoff-Caravaglia, 2000). Age 65 was arbitrarily chosen and recognized by a majority of the world as a "chronological marker." Once a person reached this marked age, they were expected to retire. This age was not based on biological or psychological aging, or research pertaining to the advantages or disadvantages of prolonging the career of the older adult employee.

The age of 65 was first established in 19th Century Germany by Bismarck, "who determined that persons who had worked long and hard to establish the current society should be rewarded by an acknowledgement of this contribution to the welfare of the state by a pension plan" (Lesnoff-Caravaglia, 2000, p. 8). At this time, the German government provided an income for all retired individuals. Life expectancy in the 1800s was considerably shorter and people spent few, if any years, in retirement. The government was therefore able to provide income during this time in a person's life without extensive economic strain (Kohut, Kohut, & Fleishman, 1983).

Due to advancements in technology, health care, and education, older adult retirees in today's society are significantly different from the elderly at the time retirement was established. Over time, people gained the option of controlling when they retired and how long they remained in the work force. Older adults can now prepare to retire early or choose to retire later in life. Although some choose to continue in the workforce, there are many that prefer to retire at an earlier age, adding many more years to a person's retirement (Lesnoff-Caravaglia, 2000).

Another difference in older adult retirees is preparation for the retirement stage. Upon reaching retirement, some individuals feel a loss of importance in roles in activities outside the home. For some, there is an increased desire to participate in activities at home. The amount of time spent at home prior to retirement increases and continues to increase to the end of their life. This choice is due in part to lifestyle changes. On the other hand, for 75 percent of retirees, their overall activity level remains constant upon entering retirement. Their work and work-related duties and activities decrease and their personal and preferred activities increase (Atchley, 1987).

Retirees have options and vast personal experiences that can help with their decisions on how to spend their retirement years (Cross, 1981; Kohut, Kohut, & Fleishman, 1983; Verduin & McEwen, 1984). One option is to seek some type of leisure and/or educational activity in which to participate. There are many avenues to pursue leisure learning activities. Some examples include, continuing education programs offered through colleges and universities and mini-courses offered through local businesses such as banks, craft stores, and civic organizations

(Darrough, 1990; Graetz, 1982; Hoffman, 1977a; Kellmann, 1984; Norman, 1978; Timmerman, 1977).

Leisure Activities

Research dealing with older adult learners reveals that many seniors pursue leisure activities for different reasons. These reasons are quite diverse, ranging from completing a GED to taking a woodworking class at a local craft store (Darrough, 1990; Pike, 2001; Verduin & McEwen, 1984). When reasons are analyzed, the adult learner can be placed into one of three categories. The different types of lifelong learners are:

1. Leisure, self enhancement, and recreational learners.
2. The under-educated adult (includes adults participating in literacy education programs).
3. Continuing education, training, and or retraining (Verduin & McEwen, 1984, p. 3-4).

Primary reasons why an increasing number of older adults are seeking and benefiting more from their leisure time and recreational activities include the following: (a) older adults are living longer because of advancements in technology, healthcare, and education, (b) increased personal worth, (c) older adults have more leisure time because they are retiring at an earlier age, and (d) there is a group of older adults who have changed from full-time employment to part-time (Verduin & McEwen, 1984).

With advancements in technology, health care, and education, many older adults are living longer. Population projections for the year 2030 will be equal in age proportion, meaning there will be almost as many older Americans as young. Life expectancy between the 1960s and 1990s for men age 55 increased more than

16 percent. In addition, the life expectancy of men age 65 increased roughly 18 percent. As for women, the numbers are even more promising. During the same 30-year time period, the average 65-year-old woman's life expectancy increased by 20 percent (Wise, 1997).

Greater personal wealth (expendable income) is another reason the aging population might seek leisure activities. Many older individuals have greater personal savings, Social Security, and employer-provided pension plans. As a result, there are more people retiring at an earlier age than ever before. Additionally, with more options for saving money, adults are able to secure a greater retirement fund during their time in the workforce (Wise, 1997).

Due to early retirement, an increasing number of older adults have more time to allocate to educational and leisure activities (Cross, 1981; Sherron & Lumsden, 1990). As mentioned in the previous section on retirement, people now have more input into their own retirement age. With this option, many individuals are preparing for an early retirement and will likely seek leisure and educational activities in which to participate.

Adults will seek and select leisure activities that suit their personal needs and goals. Many older individuals will experience life changing events such as the death of a loved one, divorce, or change of job. Seniors cannot always control circumstances in their lives. However, if a person is to experience a life changing event, the activities in which he/she participates can be controlled by the individual (Cross, 1981; Verduin & McEwen, 1984).

Many older adults seek leisure activities that stimulate their minds and keep them active. A myriad of activities require some type of mental and cognitive demand on the participant. Experts suggest that music as a leisure experience can provide the opportunity for mental activity. Musical activities, especially those which offer a variety of experience levels, are popular with older adults. Some examples include choirs, instrumental ensembles, solo instruments, and piano classes (Verduin & McEwen, 1984). One or many of these activities may satisfy the older adult's need for mentally stimulating leisure activities (Curran, 1982).

There are many research studies supporting the idea that older adults prefer activities that are active and self fulfilling. For example, a researcher (Lambing, 1972) investigated preferred pastimes of 101 retired African-American Floridians, age 48 to 105. Some of the preferred activities of older adults were watching television, reading newspapers and magazines, writing, solving puzzles, listening to the radio, taking auto rides, and participating in community/church work. Passive activities such as sitting quietly and thinking were not preferred. Overall, results indicate older adults prefer intellectual pastimes as opposed to passive activities such as sitting quietly and thinking.

Another study (McAvoy, 1979) of older adults' leisure activities consisted of 540 non-institutionalized older adults age 65 from the state of Minnesota. The most frequently identified needs by the elderly were socializing, self-fulfillment, closeness to nature, physical exercise, and learning. The researcher discovered that older adults mentioned five activities in which they frequently participate: visiting friends and/or relatives, reading, gardening, watching television, indoor hobbies,

driving, sight-seeing, fishing, and attending organization and club meetings. Even though these activities are mentioned more frequently, they are not identified as being the most preferred. For example, many people preferred walking as opposed to watching television; however, the activity of watching television occurred with more frequency. Physical limitations that could restrict participation in certain activities, such as walking, are listed as a reason for this finding. Results of this study indicate a person's lack of physical ability is a common barrier to involvement in various types of leisure activities.

In a four-year longitudinal study, Graney (1975) observed the happiness and social activities of 60 elderly women varying in age from 62 to 89 (ages set at beginning of study). The *Affect Balance Scale* was utilized as a happiness measure and social activity was measured through the use of nine measures of socially relevant activities. Results indicated participants with higher activity levels also scored higher on measures of life satisfaction and happiness. Results from this study strengthen the idea that leisure activity is related to life satisfaction.

Ray (1979) conducted another study on the relationship between life satisfaction and leisure activity of recreation participation to life satisfaction. The researcher interviewed 124 people over the age of 65 using the *Life Satisfaction Index*, *Adult Activities Inventory*, and a demographic variables sheet. Results showed a significant relationship between leisure activity and life satisfaction.

Researchers agree that music plays a significant role in helping older adults obtain and improve positive self-expression and social interaction (Tuckman & Lorge, 1953). Other experts agree that music is a bond for a group. It integrates

individuals into group activities and fosters an emotional tone which promotes group interaction (Schoen, 1945).

Music has also been said to create an environment where a person can momentarily escape some of life's stressful moments such as fatigue and feelings of loneliness (Alvin, 1975). Merrit (1971) conducted a research study of older adults in an institutionalized setting. Music was cited as being beneficial in elderly adults' physical and emotional adjustment. In addition, the researcher discovered music can help nursing home residents with adjustment to different social changes that occur due to a new environment in which they are placed.

Myths and Stereotypes of Aging

There are many myths and stereotypes surrounding advancing age in American culture. Several negative attitudes toward aging and the elderly exist in our society today. Some people believe older adults are frail, prefer mediocrity, wish to live sedentary lives, experience mental decline, prefer to disengage from life and society and resort to and prefer sedentary activities (Gibbons, 1977; Tatum, 1985). Tatum (1985) states:

American culture unfortunately abounds with age stereotypes. The elderly are frequently the subject of jokes and cartoons. They are portrayed as senile, rigid in attitude, incapable of learning, old-fashioned, prejudiced against the young, withdrawn, troublesome, quarrelsome, meddlesome, a burden on society, poor, weak, sickly, depressed, forgetful, confused, and so on. (p. 3)

In order to better understand the impact of myths and stereotypes of older adults, it is imperative to discuss the various definitions and how they can negatively impact the attitudes of society.

Stereotypes

In 1922, American journalist Walter Lippman coined the term stereotype in his book *Public Opinion*. The original use of the word stereotype comes from the technology that produced duplicate printing. This term refers to a metal plate that is cast into a mold and used repetitively. Today, the term stereotype has a completely different meaning. Lomax-Cook (2001) describes a stereotype as, “a simplified, undifferentiated portrayal of an age group that is often erroneous, unrepresentative of reality, and resistant to modification” (p. 45).

A stereotype can be compared to pictures created in our heads that we do not obtain through personal experiences. Ideas for the pictures are based on incomplete information. One problem with stereotyping is the specification of certain behaviors and characteristics to all members of a group based only on association and not on the individuals’ separate qualities. Society tends to hold infinite lists of such pictures or stereotypes for many groups ranging from choice of profession to social groups (Lomax-Cook, 2001). Some examples include stereotypes based on gender, age, and ethnicity.

Myths

Myths are unjustified beliefs given naive acceptance by members of a group of people, and the viewpoints are neither based on facts nor research (Rowe & Kahn, 1998). Rowe and Kahn (1999) define myth as a “Confusing blend of truth and fancy, frequently hearsay, usually with some link of reality, but always in significant conflict with recent scientific data” (p. 11). In regards to the older generation, myths portray seniors as dull, tired, senile, unhappy, intolerant,

unproductive, greedy, isolated and lonely (Rowe & Kahn, 1998; Skinner & Chowdhary, 1998).

Society in general tends to label the older generation. Merriam and Caffarella (1999) suggest it is difficult for society to give up some of the preconceived ideas of the aging population. For example, our language has negative connotations and tends to label people; the young are thought to be sharp and interesting, where the old or older indicates dull. Another assumption by society is that the elderly will always experience a decrease in ability and have irreversible illnesses either mental or physical (Rowe & Kahn, 1998; Skinner & Chowdhary, 1998).

With the labeling of older adults, many seniors are susceptible to being patronized when labels such as decrepit, feeble, frail, senile, and intolerant are placed on our older population. When society demeans the older generation, a barrier is created and some older individuals may find it difficult to remain vital and productive (Merriam & Caffarella, 1999; Parsons, 1990; Rowe & Kahn, 1998). Understanding and debunking the myths of aging are important when designing a program or curriculum for older adults (Darrough, 1990; Harris & Dollinger, 2001; McCullough, 1981; Norman, 1978; Patchen, 1986; Tatum, 1985).

Myths about aging include the belief that all older individuals are alike. On the contrary, older adults have the greatest variance of differences in comparison to other age groups (Kelchner, 1999). Some differences include, “social experience, health history, experience of life events, education, and personal history” (Lesnoff-

Caravaglia, 2000, p. 11). The vast range of differences is due, in part, to the wide variety of life experiences had by elderly individuals.

Kelchner (1999) groups myths into three categories: biological, psychological, and social. Biological myths focus on the physical changes that occur with aging such as illness, exertion, unattractiveness, and loss of sexuality. In the second category, psychological aging, Kelchner includes rigidity, senility, impaired intelligence, lessened memory, lack of problem solving skills, and increased dependency on others. Myths that are related to social functioning include withdrawal, isolation, stress, retirement, and use of leisure time. Kelchner stresses the importance of understanding the myths of aging and the elderly as a means to better understanding the behavior of older adults.

Ageism

Many negative myths and stereotypes toward older adults led Robert Butler to coin the term “ageism” in 1969. Butler (1975) dispels some of the common misunderstandings about older adults and aging. He compares ageism to other forms of bigotry such as racism, defining it as a process of organized stereotyping and discrimination against people because they are old. Further, he emphasizes that society embraces these ideas due to a lack of knowledge (Butler, 1975; Rowe & Kahn, 1998).

Ageism can be seen as a process of systematic stereotyping of and discrimination against people because they are old, just as racism and sexism accomplishes [sic] this with skin color and gender. Old people are categorized as senile, rigid in thought and manner, old-fashioned in morality and skills.... Ageism allows the younger generations to see older people as different from themselves; thus they subtly cease to identify with their elders as human beings. (Butler, 1975, p. 12)

This idea supports and illustrates how the elderly are victimized by our American society. Additionally, Butler denounces the practices of “ageism” and encourages the elderly not to become passive recipients of public services, but to remain and/or become politically and socially active.

Examples of Ageism

Jonas and Jonas (1973) believe the primary reason for society’s negative view toward older adults is due to a miscommunication or lack of communication between generations. This communication deficit often leads to a breakdown in a family unit. In the past, many households consisted of family units comprised exclusively of grandparents, parents, and children. Today, most households are generally comprised exclusively of immediate family members. Extended family members may live in other, more distant geographic locations. Marriage, divorce, career, and economics all factor into this geographic dispersion. Jonas and Jonas suggest that the predominance of age-segregated housing resulted in many youth having little or no contact with older generations.

The term “generation gap” is often used in our culture to convey the lack of understanding of the older adult. Many younger people do not understand or appreciate what the older generations have to offer. This misunderstanding creates a division of generations (Jonas & Jonas, 1973).

This separation of the family supports “ageism” and aids younger generations in their discrimination against the elderly. In an intergenerational study concerning how younger people (undergraduate college students) view older

generations, researchers discovered that at least one-third of the people questioned actually view the elderly as “stubborn, touchy, engaging in frequent quarrels with their children and relatives, bossy, and meddling in other people’s affairs” (Tuckman & Lorge, 1953, p. 65). Another study revealed that undergraduate college students have a negative perception of older adults. They were asked to describe how they feel in the company of an elderly person. Some of the responses were feelings of negativity, passivity, and subordination. The young adults stated they least liked older peoples “irritability,” and they often felt “pity” for the old (Golde & Kogan, 1959).

Myths and stereotypes on cognitive and physical aging

Many older individuals are labeled as having mental decline. This type of action can cause others to overlook or even attribute certain behaviors to a person’s age. Some members of society will go as far as to mislabel the elderly. For example, when an older adult is perceived to experience some type of mental confusion he/she may be labeled as having a mental illness or becoming senile (Schaie & Willis, 1996).

The belief that as a person ages, he/she will become a forgetful senior citizen is a common misconception by society. A healthy person will experience a minimal decrease in cognitive function with age. As with any age group, cognitive functioning will decrease at a faster rate if the person is not placed in intellectually challenging environments (Novak, 1997; Rybash, Roodin, & Hoyer, 1995). The idea that physical and mental decline is inevitable as a person ages has compelled many older adults to withdraw from activities they once enjoyed. When they feel

they have reached an age at which they are less productive, some older individuals begrudgingly accept their new, although not yet warranted, role in society.

Research indicates many older adults compensate for physical and/or mental degeneration associated with aging (Norman & Schacter, 1997; Perfect & Dasgupta, 1997). Verduin and McEwen (1984) stated that:

...generally older adults have the mental abilities to cope with the most learning experiences even though it may take longer to complete tasks. It should be kept in mind that almost any adult can learn any subject if given enough time and guidance. Their needs for continued learning, however, are truly insatiable in terms of requests; they want to learn about everything. Adults really are continuous learners in an informal way as they adjust to the many role changes that confront them in life. (p. 14)

Agruso (1978) reviewed numerous investigative reports concerning the mental abilities (learning, memory, and intelligence) of older adults. Research indicated that the elderly possess intellectual potential and benefit from educational endeavors. Furthermore, there is an insignificant decrease in mental capacity when the elderly maintain intellectual activity. Results support the fact that older adults are capable of learning and that other variables not associated with age might be responsible for some of the cognitive deficits portrayed by older adults. The researcher viewed “aging as a developmental growth process as opposed to the premise of aging as biological decline” (Agruso, p. 4).

Mental and physical decline in older adults is not predictable. People age at different rates and each person will experience different aspects of the aging process. It is necessary for teachers of older adults to be aware of and confront the

myths and stereotypes society holds toward the elderly and aging (Darrough, 1990; Gibbons, 1983, 1984; Ward, 1984).

Myths and Stereotypes in Music Research

Leitner (1981) examined the effects of music activities on senior day care participants and elementary school children. Questionnaires were administered to participants before and after the six week research study program. In the experimental group, the researcher incorporated sixth grade school children during the six week program. Some of the activities included a sing-along, musical performances, a talent show, and a music quiz. The control group participated in the same activities with the exception of the children being present during the six week time period. Research revealed the experimental group enjoyed the activities more than the control group. In addition, over the six week time period, the attitude of the sixth grade students toward older adults relaxed and became more positive.

Gibbons' research (1979, 1982) discredits the myth that older adults lose their musical ability and prefer mediocrity. Subjects consisted of 182 people (primarily Caucasian female) over the age of 65 from rural and urban areas in Arizona, California, Kansas, and Missouri. Participants were divided into three age categories which represented diverse socioeconomic backgrounds. The researcher tested the musical aptitude of non-institutionalized older adults by using Gordon's *Musical Aptitude Profile* (MAP). Findings indicated musical aptitude does not decrease with age. Three areas were tested: tonal imagery, which deals with melody and harmony; rhythmic imagery, which deals with tempo and meter; and musical sensitivity, which deals with phrasing, balance, and style. Of the three areas tested,

scores were higher in the areas of tonal and rhythmic imagery, and lower in the area of musical sensitivity. Thus, older adults may retain musical aptitude, which facilitates learning new musical skills throughout their lifetime. Gibbons concluded that musical abilities should be a prime concern in the development of music programs for older adults. Emphasis was also placed on the importance of structuring age appropriate goals and objectives in the curriculum planning.

Tatum (1985) addressed the myths and stereotypes often encountered when designing a program for older adult learners. The researcher strongly suggested music educators and program designers make a conscience effort to re-examine the idea that older adult learners perceive leisure activities as “leisure” or “lazy” time. Tatum found that work ethics of older adults are just as strong in leisure activity as in activities in the work place.

Myers (1986) examined the relationships between age-related trends, music learning, and self-perceived attainment in adults participating in a 20-hour skills based music learning program. Three groups of subjects ranging from 21 to 76 years of age participated. Prior to conducting the research, subjects were asked to complete a self-perception questionnaire. They were also tested on their aural accuracy by a certified audiologist, and the learning rate was determined by researcher observation. During instruction, the researcher focused on the subjects': kinesthetic response, melodic ear-to hand coordination, imitation of rhythm and melody with verbal association, and music reading and performance skills. Results revealed middle age to older subjects had a moderately lower learning rate; however, the achievement rates were generally not influenced. Older adults showed

the most significant achievement with the melodic reading and singing skills which were tested at the end of the instruction period. The findings from this study contradict assumptions that older adult's musical abilities decline due to aging.

Music Preferences of Older Adults

The elderly population has a large array of musical preferences and desires. Educators are encouraged to research and discover what their students prefer as far as music selections and activities. There are numerous studies dispelling ideas that older adults are alike and prefer the same types of music and musical activities (Darrough, 1990, 1992; Gibbons, 1984, 1985).

Many believe the elderly are satisfied with mediocrity and lack the desire to learn (or relearn) a skill. It is believed the elderly tend to prefer music dating from the late nineteenth and early twentieth centuries. An additional misconception is the elderly prefer quiet, sedate music, and participate in passive activities that require little involvement and/or minimal skill. Research indicates these assumptions are invalid (Gibbons, 1985).

Gilbert and Beal (1982) investigated the musical preferences of adults age 55 and over. The primary purpose was to discover if musical preferences were different for older individuals residing in nursing homes, retirement communities, or independent living situations. A secondary purpose was to see if preferences differed for older individuals residing in rural, suburban, or urban areas. Researchers distributed a nationwide music interest survey to adults age 55 and over. The study revealed that older adults living in urban and independent environments preferred music of a serious nature and preferred active pursuits.

Gibbons (1984) identified several misconceptions of older adults. These myths included the following: the idea that older adults are frail and lack capacities for musical development, satisfied with mediocrity, prefer participating in musical activities and that are sedate and listening to passive music from the late 1800s and early 1900s, and they have no desire to learn or relearn musical skills. According to Gibbons, older adults have a greater desire to participate in music activities and programs. When designing programs, the researcher suggested an active and stimulating curriculum for all adults.

Older adults prefer to be active in their learning and activities. Gibbons (1985) emphasized the importance of well planned music programs in which older adults can develop their musical skills as well as an environment that creates a positive atmosphere which encourages learning. She emphasized that by offering only passive activities, the program will generate demeaning conditions. This type of environment could make the musical experience a challenge or even stop a person's musical growth and development. In order to escape the furrow in which society has placed older adults, Gibbons suggested alternative activities such as instrumental and choral ensembles, individual applied music, and classes in composition, theory, and music history. The elderly have an inherent capability for musical development. If older adults are introduced and seen as productive functioning individuals, their chance of experiencing musical development and success rises.

Another study by Gibbons (1977) examined the popular musical preferences of older adults. A survey was administered to determine if subjects preferred

popular music from their youth, or music from later periods of their adulthood. A secondary purpose of the study was to see if older adults prefer stimulative or sedative music. Participants consisted of sixty volunteer subjects between ages 65 and 96. Subjects represented diverse types of residential conditions in the Lawrence/Kansas City area of Kansas. Individuals were asked to reveal their preferences to a variety of musical samples. Listening selections were chosen from popular music charts from the years 1900 through 1976 and represented different styles, tempos, and eras. The time periods were divided into various ten year increments and an equal number of sedative and stimulative pieces were selected. A panel of music experts then categorized the music selections. Music was played on the piano and tape recorded. Data were subsequently analyzed for 38 of the 60 subjects tested. Research results uncovered two significant findings which may be useful to individuals designing programs for adult learners. The first indication was that older adults prefer music of their young adult years as opposed to popular music of later years. The study also revealed older adults tend to prefer stimulative, as opposed to sedative music.

In another study on musical preferences (Lathom, Peterson, & Havlicek, 1982), researchers examined the myth that older adults prefer hymns, folk songs and music from their youth. This study focused on the differences between older adults' musical style and religious preferences as well as, age, gender, marital status, health, education, previous musical experience, and residence. The study was conducted on 104 volunteer non-institutionalized subjects age 55 and over. All participants attended nutrition centers in a metropolitan area in the Midwest. A

survey instrument, designed by the researchers, asked the participants to state their preference to either the first or second item of twenty-eight pairs of recorded musical examples. Eight different categories, equally divided between instrumental and choral, were represented. Examples included folk, big band, jazz, musical shows, opera, patriotic, religious, music of the twenties, and symphonic music.

Results indicated equal distribution between instrumental and vocal preferences. However, the subjects preferred patriotic, religious, and big band styles to symphony, opera, and folk music. There were no significant differences in musical preferences when the subjects were divided into the categories of religious preference, age, gender, type of residence, and health. Researchers discovered however, that musical preferences were significantly different when related to the factors of educational level and previous musical experience. Symphonic and operatic music was most preferred by older adults with a college education. The authors concluded that through continuing education programs, the retired older adult population is becoming more educated; therefore their musical preferences might change as well (Lathom, Peterson, & Havlicek, 1982).

A study of older adults' musical needs and preferences concluded that the number of adults currently participating in musical activities was in decline (McCullough, 1981). The researcher surveyed 276 older adults over the age of 65 and discovered that participants preferred popular music followed by opera. The study also revealed that in regards to participants' class preference types, classes such as music appreciation were favored. There was no charge for the course and the class met once a week in the afternoon. The class was organized in an age-

segregated setting. Participants stated problems with transportation as the primary reason for non-participation. Concerns expressed by the participants were: lack of accommodations for physical disabilities such as arthritis, vision and hearing loss. The researcher noted that these concerns should be taken into consideration when planning a program or event for senior adults (McCullough, 1981).

Larson (1983) interviewed twelve retired adults with the purpose of developing a list of lifelong musical interest and activity characteristics. A secondary purpose was to compare and identify relationships among levels of education, work background, and residence during retirement. Subjects were both blue-collar and white-collar workers. The researcher described the subjects' educational backgrounds, career, residential status and type during retirement. Larson discovered lifelong musical activity is unrelated to the levels of education or work experience. The subjects' childhood musical environment had a significant role in the choice and participation of music as an adult. Influencing factors were parents – primarily the mother, peers, and other influential adults. None of the 12 participants reported a decrease in musical interest beyond their retirement. Their musical interests and preferences remained relatively stable throughout their life.

Cognitive Factors in Aging and Learning

It is important that educators of adults understand the aging process and the changes that occur in the cognitive functions, or thinking patterns, of older adults. Equally important, is how the natural process of aging can affect the emotional and mental well-being of senior adults. Different aspects of cognition are affected in different ways as a person ages. In the present study, areas of cognition, aging and

learning that will be focused upon are: problem solving, processing speed, intelligence, and memory. Experts have measured these learning processes through paired association, sequential learning tasks, memory and intellectual correlates. While these processes are often studied individually, they are frequently combined and presented collectively as the “learning process” (Hayslip & Kennelly, 1985).

Problem Solving

Older adults approach, analyze, and resolve problems differently from that of a younger person. If an older individual cannot draw on past experiences for solutions to issues and problems, he/she tends to be overwhelmed and frustrated. The elderly are inclined to have a literal approach to problem solving whereas younger people have theoretical approaches (Lancaster & Simpson, 1990).

Experts suggest older adults do not like to risk making a mistake. This attitude may, therefore, be an inhibiting factor in trying new solutions for problem solving. In fact, some older adults will opt for being wrong, rather than change their way of approaching a new situation. Because some adults may experience difficulties with problem solving skills, adult educators are encouraged to place special emphasis on the manner in which directions are given to the adult learner (Atchley, 1980; Reese & Rodeheaver, 1985).

Processing Speed

Research on the aging process indicates that, as a person ages, information processing and performance skills begin to slow (Craig & Salthouse, 2000; Rybash, Hoyer, & Roodin, 1995). This gradual slowing may account for many age-related differences in cognition (Botwinick, 1984; Hultsch, et. al., 2000). As a result of the

noticeable slowing of performance skills, some older adults intentionally slow down because they value accuracy over speed (Botwinick, 1984).

As a person ages, the nervous system begins to slow and reaction time is sluggish, the hands may begin to tremble, and fatigue comes more quickly with less exertion. By late forties, older individuals begin to notice slower reflexes and slower reaction time in response to stimuli (Atchley, 1980). Even though the body begins to show signs of slowing down, it appears that a person's level of cognitive functioning is rarely diminished (Kalish, 1977).

Salthouse (1979) conducted a study comparing reaction time between older and younger adults. Subjects were asked to distinguish between patterns of light and indicate if they were identical or different. After the first round of testing, the subjects were asked to increase their response speed and were told that a monetary reward would be given if subjects could exceed the previous results. Both groups were more accurate at the slower speeds; however, the younger subjects were overall faster than the older participants. Even though the older subjects had a slower response rate, their behavior was more accurate than that of the younger subjects. This information leads one to conclude that greater emphasis should be placed on accuracy as opposed to speed when dealing with older adults (Salthouse, 1979).

Some researchers agree that through practice, age-related slowing can be improved, but not completely eliminated (Rybash, Roodin, & Hoyer, 1995). As a person ages, he/she actually begins to show signs of slower processing speeds. Within the context of an educational environment, the processing speed of older

adults may show signs of slowness in relationship to the speed at which an individual may be able to perform activities. However, the slowness pertains to speed of carrying out a task and not a decline in an older adult's ability to learn (Fry, 1992; Hultsch, et. al, 2000; MacDonald, Hultsch, & Dixon, 2003).

Intelligence

One measure of cognitive ability is intelligence. Merriam and Caffarella (1999) describe intelligence as a measurement of a person's ability to learn. Researchers agree that intelligence consists of a number of mental abilities such as verbal comprehension, word fluency, number, space, and perceptual speed. For this reason, two highly abstract components of intelligence that include the various primary mental abilities were labeled. The two types of cognitive abilities often referred to when discussing the aging process and cognition are: fluid and crystallized cognitive intelligence (Cattell, 1963; Horn & Cattell, 1967).

Fluid intelligence is the information processing system and refers to one's ability to solve problems. It includes reasoning, organizing, mathematical relationships, the speed at which information can be analyzed, and one's attention and memory capacity. Fluid intelligence also comprises non-verbal skills that are relatively separate from education and experience. An individual's fluid intelligence is believed to peak in one's teen years and remain stable into the adult years. This growth and stabilization is believed to be linked to people's physiological traits, such as memory. As a person ages, he/she will show some loss of fluid abilities; however, the most noticeable loss is one's ability to complete a task in a timely manner (Cattell, 1963; Cross, 1981; Horn & Cattell, 1967; Novak, 1997).

Crystallized intelligence, on the other hand, is information and vocabulary which are acquired from educational experiences and everyday life; therefore, it increases as one ages. It also includes the application of skills and knowledge in solving problems (Cattell, 1963; Cross, 1981; Horn & Cattell, 1967).

Considering the adaptation of fluid and crystallized intelligence to the aging process, the patterns complement one another. Fluid intelligence declines over time, whereas the abilities in crystallized intelligence increase and actually compensate for the losses in fluid intelligence. Even though older adults exhibit a slower response rate with certain tasks, they compensate by utilizing a greater wealth of knowledge and experience (Cross, 1981; Rybash, Roodin, & Hoyer, 1995; Salthouse, 1982).

Although research indicates some changes in intellectual functioning occur in the aging process, research has also revealed that these changes are not detrimental and, for most people, happen somewhat later in life than previously assumed (Schaie, 1990). For this reason, an older person can participate in learning activities and achieve as much success as that of a younger person (Cross, 1981). Participation in lifelong learning activities plays an important role in enabling older adults to live a more productive and longer life. Continuing intellectual activity is a contributing factor in the efficient functioning of the brain well into a person's later decades of life and may be a factor in improving quality of life (Jonas & Jonas, 1973).

Atchley (1980) purports that adults vary in many ways. As people age, there is a wider span of differences between each person; they vary in terms of their

psychological state, educational backgrounds, career histories, health, and environmental factors. There is corresponding assumption that along with aging there is a decline in a person's intelligence. With such numerous differences between people, varied results on intelligence test scores are easily obtained. Atchley discusses using measured intelligence tests on adults. For example, when the *Weschler Adult Intelligence Scale* (WAIS) is given to a 25-year-old person and then to the same person at the age of 75, there could be as much as a 40-point difference between the IQ scores, yet the mental ability remains the same. The scoring system has a built-in handicap. There is a normal assumption that a person's score will drop approximately 40-points. Even with this built-in handicap, over the years, cross-sectional data consistently show a decline in older adults' scores.

There is a great amount of debate and research on the assumption that declining intelligence inevitably occurs with age. Researchers look at the testing tools, as well as the process of cognitive aging, when investigating age declining intelligence. The first factor to consider is that the IQ test was developed for young individuals to help place them in appropriate academic and career settings. With this in mind, the test is measuring skills that are used and emphasized in the formal youth educational system. Some of the skills might not have been used by older adults for long periods of time; this could place an elderly person at an obvious disadvantage. According to researchers, the second problem is the emphasis on speed of response. This also places some older adults at a disadvantage, even if they have identical mental abilities (Atchley, 1980; Botwinick, 1984).

The validity of adult intelligence tests is of great concern to researchers (Demming & Pressey, 1957; Schaie, 1978). Schaie (1978) maintains that older adults should be evaluated in terms of their “competence” rather than intelligence, meaning that older adults should be evaluated by the manner in which they carry out their lives and the capabilities they exhibit in solving the problems of life rather than by their standardized IQ scores.

Demming and Pressey (1957) designed an intelligence test for adults that dealt with practical information. The test consisted of material, such as common legal terms, and information from yellow pages of a telephone book. Researchers discovered that scores did not go down, but were actually higher, even though some people had taken an additional intelligence test showing a decline in their score over a period of time.

As a person ages, certain bodily functions and responses change. For example, a person will develop a slower response rate to general tasks and tend to experience a decline in both hearing and vision. Still, with this decline of abilities, it remains possible for an older adult to learn at the same rate as a younger person. A study of older adults’ learning capabilities confirmed even though intelligence and ability to learn are affected by age, older people, in good health and of sound mind, are capable of continuing to learn successfully as well as remaining productive members in society (Atchley, 1980; Botwinick, 1984). Sakata and Fendt (1981) support the idea and emphasize that older adults need an environment where learning is appropriately paced. If this is supplied, older adults can perform just as well as a younger person.

In a seven year (1956 – 1963) longitudinal study on older adults and IQ, the Thurstone and Thurstone *Primary Mental Ability Test* and the Schaie's *Test of Behavioral Rigidity* was administered to 800 subjects. After the seven-year testing period, 301 subjects remained and were retested. Tests yielded practically the same results, with the exception of those in the area of visio-motor flexibility. Results indicated that not only does a person's intelligence not decline as he/she ages but the opposite can occur, it can actually increase with time – “particularly the crystallized type” (Baltes & Schaie, 1974, p. 36). Researchers emphasized the importance and need for adult programs that encourage a more intellectually stimulating use of older adults' leisure time.

Memory

Memory is the process by which an individual consciously recalls information and reproduces what has been learned and/or experienced. Memory can be placed into two categories: short-term and long-term. With short-term memory, a small amount of material is retained for only several seconds or minutes. The material is held in one's memory then recalled as a response in the same form in which it was presented. Long-term memory, on the other hand, requires several hours or days to develop, but can last for a person's lifetime. The material may have been obtained years ago or only minutes prior to recall; however, it is to be remembered and is no longer in a person's conscious awareness (Lesnoff-Caravaglia, 2000; Novak, 1997).

Long-term memory is minimally affected by progressing age but has the greatest difference in function between older individuals. A person's long-term

memory requires him/her to learn, store, and retrieve the same information at a later time. With older individuals, learning and retrieving information is the greatest challenge and shows the greatest variance between people and their long-term memory capabilities (Novak, 1997).

In regards to aging, long-term and short-term memory are completely opposites. As some adults age, long-term memory actually increases. It is common for an older person to show very few signs, if any, of recalling information from previous decades in his or her life (Cross, 1981). Short-term memory, on the other hand, is completely opposite. For older adults, decreasing short-term memory is a gradual process. Fortunately, individuals have time to adjust to changes that occur in short-term memory.

Memory retention does not show appreciable decline among persons who remain in the workplace or maintain active intellectual interests following retirement. Also, people who engage in social activities with family, friends, or by volunteering do not seem to suffer from memory deterioration. (Lesnoff-Caravaglia, 2000, p. 55)

This could be due in part to the fact that people with higher earning capabilities normally have better health care and better standards of living (Lesnoff-Caravaglia, 2000).

With age, some older adults may have difficulty with short-term memory. Problems with short-term memory material may be influenced by a persons' lack of interest or need for the material at the time it is presented. Some researchers believe the appearance of a decline in short-term memory may be the result of an older adult's large "storage capacity." Over the span of one's life, a large amount of information is gathered and stored in the memory bank for current and later use. As

a person continues to age, more information is gathered and stored in the memory bank to the point that he/she has a wealth of knowledge. For this reason, some researchers agree that possible signs of a decline in the short-term memory are actually the result of the time needed for an older adult to scan large banks of previously stored information in order to find the needed material (Cross, 1981; Wlodkowski, 1999). Andragogues agree that specific steps can be taken in the classroom and learning environment to delay the deterioration of the short-term memory of aging adults.

First, the presentation of new information should be meaningful, and it should include aids to help the learner organize it and relate it to previously stored information. Second, it should be presented at a pace that permits mastery in order to strengthen the original registration. Third, presentation of one idea at a time and minimization of competing intellectual demands should aid original comprehension. Finally, frequent summarization should facilitate retention and recall. (Cross, 1981, p. 164)

With memory failure being a common concern of older adults, many assume their decreasing memory function is a normal part of the aging process (Rybash, Hoyer, & Roodin, 1986). It is common for the elderly to complain about forgetfulness and experience difficulties retaining information. Some might even say their memory is not as good as it used to be, and at times, it is difficult to recall names of acquaintances and common objects. Research confirms the concerns of decreasing memory with age. Studies show memory performance does indeed decline after the age of 50 (Craik & Salthouse, 1992).

Many cognitive researchers have investigated the relationship between the aging process and memory functioning and decline. Findings from studies show, for the most part, age-related memory losses are quite variable. Each elderly person

ages at a different rate and, as a result, experiences different degrees of memory decline (Craik & Salthouse, 1992; Kausler, 1990; Rybash, Hoyer, & Roodin, 1986; Salthouse, 1982).

A 1983 study by Gibbons indicates that older adults' short-term memory retention abilities diminish with age. The researcher explored the musical discrimination responses of elderly residents in assisted-living environments using Gordon's *Primary Measure of Music Audiation* (PMMA) test. There were 180 subjects over the age of 65. All subjects were residents of either intermediate or skilled care facilities in Kansas and Missouri. The population was divided into 33 males and 147 females with two African-American females and one African-American male; the remaining subjects were Caucasian. Volunteer subjects were directed to listen to both tonal and rhythmic patterns then asked to decide if the two consecutive patterns were different from or the same as the previous example. Gibbons concluded institutionalized Caucasian females may have a problem learning and performing music that consists of complex rhythm patterns or music that has small interval changes or note duration changes. She suggested the subjects might not have completely remembered the first example well enough to compare it to the second. This could have been due to short-term memory retention abilities, which are affected by age. However, the subjects could discriminate marked differences in familiar examples. She suggested the elderly might encounter failure or be less successful in musical discriminations with unfamiliar music as opposed to music that is familiar (Gibbons, 1983).

The PMMA is normally used on individuals up to 9 years of age. Gibbons used this instrument because it is a valid and reliable tool in other populations and is a practical measurement tool to use with institutionalized older adults. The only changes made to the PMMA included the omission of item identifiers which were considered to be inappropriate and unnecessary for people over the age of 65 (Gibbons, 1983).

Andragogues agree that as a person ages, he/she will grow as a learner because of the vast amount of life experiences. As adults age, they learn how to maximize their learning by compensating in order to strengthen their cognitive abilities. With the adaptation of this “compensation” ability, many adults seek activities that enable or provide opportunities for this process to occur (Knowles, 1998).

Reminiscence

Participating in musical endeavors encourages reminiscence which in return benefits an elderly person in areas such as improved self-worth and stress relief. Reminiscence can create an atmosphere, memories, and feelings about the past and can enable the elderly to recapture valued parts of themselves, which might have been lost through time and life experiences. Reminiscing can also help provide the elderly with a renewed sense of identity and self-worth. Musical endeavors enable older adults to awaken memories through playing, listening, singing, or discussing music (Kartman, 1991).

With the ability to help alleviate the stresses experienced by many older adults, reminiscence has value for elderly persons. During times of stress, older

adults who choose to recall and focus on specific events in their own lives, tend to experience and recall pleasant memories. Reminiscing can help them escape from stressful pressures and promote contentment and pleasure (Wolf, 1992). Research documents positive outcomes of reminiscence. Examples include, reduction of stress, improved psychological well-being and life satisfaction, increased self-respect, self-esteem, self-awareness, reduction of depressive symptoms, cognitive improvement, and increased social interaction (Ashton, 1993; Fallot, 1980; Gibbons, 1988; Haight, 1992; Lewis, 1971). Reminiscence techniques help provide older adults with pleasurable experiences that may help improve the quality of life.

Music Therapy

The music therapy literature provides great insight into program design for older adults. Shapiro (1969) conducted a two-year pilot program in music therapy for residents of the Montefiore Home for the aged in Cleveland Heights, Ohio. The purpose was to modify residents' tendencies toward self-segregation or isolation toward different culture groups, such as German, Polish, Russian, and Hungarian. Each day the subjects participated in 45-minute sessions entitled "Music for Fun." Activities were therapeutic, educational, and entertaining. Some activities utilize clapping rhythms, either by echo or by reading; conducting simple patterns as well as conducting while other participants sing; and ear training exercises involving singing of scales as well as learning to read and recognize intervals. To improve the concentration level of the older adults, the residents were asked to participate in simple ear training exercises. The study revealed therapeutic results which include increased socialization, relaxation, development of leadership qualities, and the

improvement of self-confidence and increased physical coordination. The researcher discovered that when participants enjoyed their musical experiences, they chose to continue participating, and gained new musical skills. Shapiro also noted the importance of careful attention to mood fluctuations among participants.

Tanner and O'Briant (1980) explored the psychological and physical benefits of singing. Some benefits included an improvement in attitude due to the cultural and societal role that music plays in people's lives. Conducting patterns were used to encourage leadership within the group as well as help develop self-confidence and improve coordination. The authors avidly supported music education as a lifelong learning endeavor and emphasized the importance of educators presenting material in a manner conducive to adult learning. Researchers also expressed the need for andragogues to seek information concerning the amount and quality of music programs offered to the elderly population. Educators were urged to present material to older adults in a stimulating manner.

Educational Gerontology

Educational gerontology, a branch of social gerontology (Sherron & Lumsden, 1990), has been defined as "an attempt to apply what is currently known about aging and education in order to extend the healthy and productive years and improve the quality of life for older people" (Peterson, 1990, p. 3). The study of educational gerontology encompasses instruction for older people. Educational gerontologists encourage continuing education for professionals preparing to work with older adult learners (Peterson, 1990; Sherron & Lumsden, 1990).

Learning does not cease after a person leaves an academic setting. Ideally, education is a developmental process enabling the learner to adapt to a continuously changing environment. As mentioned in previous sections, the older population has more options with their time and retirement years than past generations. There is an emerging trend among the elderly to utilize “extra” years by exploring latent educational opportunities and cultivating new and/or previously established interests (Gibbons, 1985). With this trend, educational gerontology has become of great interest to persons dealing with the adult population.

Pedagogy and Andragogy

Pedagogy and Andragogy are two instructional models in education. In a pedagogical teaching model, the teacher assumes the primary role of making decisions about what will be learned, when it will be learned, and how it will be learned. This style of instruction is “teacher-directed, leaving to the learner only the submissive role of following a teacher’s instructions” (Knowles, Holton, & Swanson, 1998, p. 62).

The pedagogical model evolved in the monastic schools in Europe between the 7th and 12th Centuries. The idea was initially based on the observations of monks teaching children basic skills such as reading and writing. With the rise of schools around the world, the pedagogical model was a basis of teaching children. As adult education increased, the teachers of adults and adult students themselves realized the pedagogical model was not satisfying adult educational needs (Knowles, 1980).

The older adult learner seeks active learning situations over those that are passive in nature. As an adult reflects on his or her school experiences, the thought

of learning and continuing education may be viewed as a chore, a burden, or possibly unpleasant. These thoughts and ideas may be a result of educational situations using only the teacher directed approach to teaching and learning. This pedagogical model includes instructional approaches “that stand the test of time” and tend to include “fact-laden lectures, assigned readings, drill, quizzes, rote memorization, and examinations” (Knowles, 1980, p. 40).

Adult learners are selective in the learning activities in which they choose to participate. Among the more successful teaching strategies, older adults favor active, goal-oriented, problem-solving, and cooperative learning models (Cross, 1981, Knowles, 1980). The adult learner is generally less tolerant of the more passive lecture set up and is enthusiastic and willing to take responsibility for his or her own learning (Knowles, 1980). Adult students desire more from a learning experience and many choose not to participate in an activity that is unpleasant or one in which they have no control over their experience (Cross, 1981; Knowles, 1980).

Knowles emphasizes that most adults are self-directed, have the desire to learn, and expect to take responsibility for decisions about their learning. It is imperative that adult education programs accommodate this important aspect of the older learner. The andragogical model is based on the following assumptions:

1. The need to know: Adult learners need to know why they need to learn something prior to undertaking the task.
2. The learners’ self-concept: An adult’s concept of self moves away from being dependent toward being a person that is self-directed and independent.
3. The role of the learners’ experiences: Adults need to learn experientially.

4. Readiness to learn: Adults approach learning as problem-solving.
5. Orientation to learning: An adult's learning shifts from subject-centered to problem-centered. As a person matures his or her perspective of life and learning changes from one of deferred application of gained knowledge to immediate application of knowledge and skills.
6. Motivation: Adults are more motivated to learn if they perceive that the information or skill will better help their performance in life situations (Knowles, Holton, & Swanson, 1998, p. 62-68).

Andragogy is a way of helping human beings learn, not just children or adults but everyone (Knowles, 1980). Merriam and Caffarella (1999) describe andragogy as “the best-known set of principles or assumptions to guide adult learning practice, andragogy actually tells us more about the characteristics of adult learners than about the nature of learning itself (p. 267). Knowles (1980) takes the idea further and suggests that andragogy is “simply another model of assumptions about learners to be used alongside the pedagogical model of assumptions, thereby providing two alternative models for testing out the assumptions as to their ‘fit’ with particular situations” (p. 43).

Understanding and utilizing a learning theory is beneficial when working with older adults. A good learning theory is one that provides explanations and a course of action for implementing the method. The better a teacher or director of an adult program understands various theories, the better he/she will be able to incorporate ideas regarding learning experiences and make decisions that will better the program and help reach goals (Knowles, 1990). Merriam and Caffarella (1999) advocate the understanding and implementing of various models of adult learning, such as pedagogy and andragogy, recommending that each model previously discussed could aid in “advancing our understanding of adult learners” (p. 287).

Program Development

Most adult learners differ from younger learners in a number of ways.

Adults are often considered part-time students and differ from the traditional full-time student. Many are voluntary students and have specific goals and learning objectives in mind. If these objectives are to be met, it is important that they first be identified and the adult learner is a part of the development of his or her own curriculum.

Research on program development for older adults reveals many of the same needs and desires for this group of people. Most studies agree in the following areas: (a) program developers and teachers need to be sensitive to the needs of their older students; (b) a positive first meeting will generate positive success; (c) the teacher(s) is the key to a successful program; and (d) programs for older adults should stimulate the creative and aesthetic parts of the student. Overall, program developers and teachers need to know the audience and should be sensitive to needs of the older adult learner (Darrough, 1990; Graetz, 1982; Hoffman, 1977a; Kellmann, 1984; Knowles, 1980; Norman, 1978; Timmerman, 1977).

Due to first experiences with formal education, some older adults may have a negative view of education and the learning environment. Many adults possess the idea that education is for the young, the information is not relevant to their needs, and as mentioned in the previous section, many may be fearful of going back into an educational setting (Graetz, 1982; Hoffman, 1977a; Kellmann, 1984; Knowles, 1980).

Because some adults have predisposed ideas about educational endeavors, it is important to include a wide variety of musical learning activities when designing a program. Activities should be based on the needs, capabilities, and desires of the student. Cross (1981) maintains “the role of educators in the learning society is to develop gourmet learners and to be responsive to their interests by providing a wide range of high-quality educational options” (p. 251). It is important that personnel working with the aging population know their students and be sensitive to their needs.

Adults have the choice as to whether to stay and participate in an activity. If a program or activity does not meet the expectations and needs of an older person, they make the choice to continue or discontinue participation. Norman (1978) supports this statement and points out that the “elderly will not continue in an activity that they don’t enjoy and that does not fulfill their needs” (p. 57).

One way to meet the needs of the older adult learner is to gather information about the individual. Researchers suggest that andragogues look to all students, both returning and future, to gather information for program design and curriculum. Some researchers suggest gathering the following information: (a) physical conditions, (b) attitudes toward education, (c) preference of location and time of course offerings, (d) content preferences, (e) social needs, (f) low tuition/fees, and (g) some personal history (Darrough, 1990; Norman, 1978; Timmerman, 1977).

When planning and developing a program, educators should gather as much information as possible about the prospective participants prior to the actual establishment of the program. In the early stages of program planning, it is

important to identify broad goals, investigate prior experience needed for future teacher(s), find access to materials, equipment and instruments and lastly, search for proper facilities to accommodate older adults (Kellmann, 1984). One means of assessing the needs of future and present clientele is the administration of a survey or questionnaire instrument.

A less formal way to gather needed information is through conversation. Hoffman (1977a) suggests some of the information that should be gathered verbally from adult students might include: (a) physical conditions and/or limitations, (b) preference to course content, (c) prior life experiences, (d) social needs, (e) attitude toward education and the arts, and (f) preferences concerning the when and where of the course offering.

Researchers indicate the first meeting is crucial and can determine the success or failure of a program. If future participants do not find the use of their time worthwhile and enjoyable, they are likely to not return for a second visit or inquiry. Along with a meaningful meeting, the atmosphere should be positive. Researchers agree that the interests of older adults should be stimulated with some new information or experience that is appealing but not too difficult to perform or understand (Graetz, 1982; Norman, 1978).

In a study conducted by Norman (1978) on arts programming for senior citizens, the researcher discovered the importance of a successful first experience and initial meeting as well as uncovering needs of older adult participants. In order for older adults to return and participate in a program, adults need to feel safe and comfortable with the activities and their environment. It is also imperative they feel

as if the meeting is important and useful in their lives. A secondary point the researcher discovered was that older adults closely guard their dignity and it is easily injured. With these discoveries, the researcher emphasizes that people working with older adults need to be particularly sensitive to each individual and create a positive learning environment as early as the initial meeting (Norman, 1978).

In a publication from the National Council on the Aging, Graetz' (1982) suggestions for program design emphasized the importance of the initial meeting. The researcher suggested that instructors establish themselves as guides to learning during the first meeting. Graetz suggests that a problem or task be introduced to the perspective participants. The author writes from the visual artist perspective and suggests a task or problem that can be completed in the form of an actual piece of art work or in the form of the comprehension of a new idea. The task or problem should be designed so it can be finished or solved by the time participants leave the initial meeting. This type of activity leads to feelings of accomplishment, enhanced self-esteem, and creates a desire to return. Teachers are encouraged to use this idea and modify an activity to fit the purpose of the group (Graetz, 1982).

When considering program development, special attention needs to be given to the area of teacher training for educators of older adult learners. Andragogues suggest that music education move toward a broader range of services which extend to the elderly population. Leonhard (1981) strongly suggests that upcoming music education teachers be exposed to gerontology and the teaching of older adults. Hoffman (1977b) supports the same idea and emphasizes the importance of special

training for all teachers working with older adults. He believes arts programs should take many forms and be offered on campuses in the form of continuing education programs specifically designed for the elderly.

Kellman (1984) suggests that colleges and universities might provide expanded opportunities for music education majors and student teachers to work with older adults and/or take a class or classes specializing in gerontology. For students and teachers working with older adults, it might be helpful to offer classes or workshop training in gerontology and/or andragogy. Future curriculum changes might include the degree of music education major with a minor in gerontology. Another benefit of expanding the music education curriculum beyond the basic music classes would be the opportunities to create new bonds with departments outside the music area for administration, faculty, and students.

There are numerous ways to reach out to the older population. Educators of older adults are encouraged to contact local, state and county councils of aging as well as senior clubs, centers, and housing complexes to aid in program expansion. They are also encouraged to design programs not only for school age and young adult populations, but to expand and incorporate activities and programs for the older American population (Davidson, 1982; Leonhard, 1980).

Music programs for older adults should incorporate a variety of activities. Research indicates older adults do not desire to participate only in passive activities such as “kitchen bands” and “sing-a-longs” (Gibbons, 1985). Programs for older adults should not have a primary focus of keeping the students “entertained” or be

used for solely providing recreation. Andragogues encourage the implementation of programs that focus on instruction (Gibbons, 1985; Timmerman, 1977).

Since older adults differ from children in ability levels and interests, it is important for persons working with older adults to utilize unique approaches in their instruction. Coates (1984) discusses the different needs and requirements of older adults. In order for an older person to be successful and feel a sense of accomplishment, materials should not be presented or evaluated in the same manner as with children. Coates suggests the older adult learner assume the responsibility of evaluating his or her own learning.

Incorporating meaningful activities into the classroom curriculum can aid in improving self-concept of older adults (Coates, 1984). In order to design programs that promote a positive self-concept, Coates suggests andragogues study the developmental changes experienced by older adults. These experiences can greatly impact a person's participation and enjoyment level in a musical environment. Some possible developmental changes include: loss of hearing, difficulty learning new material, a lack of motivation as a result of by being too cautious, and a decline in the accuracy of movement and agility. With this information, the researcher emphasizes the foundation of a music education program that focuses on the participant experiencing the music. Each person's needs, characteristics and interests should be taken into account when developing a program for older adults.

In a 1985 survey by Tatum, musical opportunities in retirement homes and senior citizens' centers in the states of Alabama, Florida, Georgia, and Tennessee were studied. The survey was divided into two parts and mailed to over 500

organizations. The first portion of the questionnaire aided in the collection of data on types of musical experiences (listening, instructional, or participatory), resources, settings, performance opportunities, teachers and evaluation procedures. The second portion of the questionnaire focused on discovering reasons for lack of musical opportunities and measures interest in future programs. Six onsite observations were conducted by the researcher. Tatum studied the teaching and curriculum from each institution and discovered issues affecting the different kinds of musical experiences such as: institution size, type, and a more positive and productive learning environment if a musically trained person is responsible for activities. The researcher also observed the institutional surroundings. Results indicated a clean, attractive environment is much more favorable to learning, creativity, and self-expression. The most common types of experiences were group singing sessions and concert attendance and the least popular being educationally focused experiences such as music theory or history. Social and recreational aspects of musical involvement were preferred over musical, aesthetic, and educational practices.

Tatum (1985) made several recommendations for educators and future programs. In regards to program design, suggestions include mini-courses that are divided into small time frames such as four to eight weeks; a wider variety of subject and class materials to accommodate a broad range of interests; basic music fundamental classes; instrumental classes teaching folk instruments and/or guitar; and the utilization of peer teaching. In summary, Tatum emphasized that our older

American society deserves to experience meaningful retirement years and the best musical programs possible.

In a 1977 study, Hoffman emphasized the need for community involvement. He gave the example of a project in South Carolina where the Center for Arts and Humanities Program for Elders served over 3,000 older adults. This program was university-established and operated with a limited budget and staff. He credited the program's success to the fact it is located in the community. Hoffman mentions special needs and considerations of older adults, such as problems with transportation and general fears.

Hoffman (1977a) stated there are fewer opportunities for creative endeavors for older Americans. He states that, "Few elders have known the pleasures of creating, have been able to participate in music or other cultural activities, or have been able to explore the humanistic areas of study" (page 59). As the number of older citizens increases, this is a pinnacle time to expand the learning spectrum into the older population and provide continuing education for older adults.

Programs in the humanities and arts can provide a sense of responsibility and rebuilt important attitudes (the feeling of being wanted and needed are among the most important) destroyed through inactivity and changing roles. It can also build new attitudes toward the arts while providing alternatives for the utilization of leisure hours. (Hoffman, 1977a, p. 60)

Hoffman suggests when andragogues plan a program, the above mentioned issues should be considered. Teaching of adults should not be taken lightly and it is important for teachers (full time, part time, or voluntary) to be sensitive to their audience.

New Horizons Band

Roy Ernst had a vision for developing a program for older adults in the Rochester, New York area. Through research, he discovered the number of people age 50 and above was rapidly growing. He realized that people in this age group were healthier and seeking opportunities to become involved in innovative, different, and worthwhile activities. Ernst and Emmons (1992) state “the aesthetic, intellectual, physical, and social aspects of performing music (especially in groups) can improve health and quality of life” (p. 31). This finding inspired Ernst to develop the New Horizons Band (NHB) program providing music education opportunities for retirees and/or older adults. The suggested minimum age for participation in NHB is 50. This age was chosen since this is the minimum age to join American Association of Retired Persons (AARP).

Ernst believes the “retirement” years to be a prime time to learn to play and experience a new instrument. Motivated by the belief that a person could learn a new skill at any age, Ernst reached out to the older generation, especially individuals who have never participated in a musical activity. Consequently, the New Horizons Band is not formed exclusively for returning or active musicians. The organization strongly encourages participation by adults who have never learned how to play a musical instrument prior to participation in NHB.

Ernst, being an educator himself, sought qualified instructors for the organization and provided the necessary training. Eight teachers were selected from graduate students at the Eastman School of Music. Additionally, specialists from the fields of music education and medicine were employed to teach training classes

dealing with the learning characteristics of older adults. Each teacher participated in these seminars (Ernst & Emmons, 1992).

When time came to announce the emergence of the NHB to the public, the response was enormous. In January 1991, the New Horizons Band (NHB) was ready to begin. Notices were placed in local newspapers inviting members of the community to an informational meeting (Ernst & Emmons, 1992). Ernst expected approximately 30 people to show interest and enroll in the program; to his surprise, the enrollment was almost double the initial estimated number. Today, there are 97 New Horizons Bands in the United States and Canada (New Horizons Band, 2005).

One of the first goals of the NHB was to develop a teaching methodology. The pre-notational phase of instruction lasted four weeks and included an emphasis on singing and rhythmic movement, good performance fundamentals, playing by ear, improvising, and creating original songs. Ernst and Emmons (1992) found that older adults showed a strong ability to learn, especially “oldies” which were familiar to them. Notation was introduced to the adult learners in small instrument groups and participants were first instructed to play and sing songs by ear. Following these exercises, the participants were presented with the musical notation of these songs.

The second phase of instruction began in the fifth week and included the use of an elementary band method book. Once the students reached a certain level in their performance skills, the participants were combined to form one large ensemble. This was a time for adult band members to perform chamber works and

original compositions as well as play together in a large ensemble (Ernst & Emmons, 1992).

Each New Horizons Band is unique and can be best organized to fit the needs of the specific group. However, the typical organization and rehearsal plan is one that closely parallels Ernst's original 1991 setup (Coffman & Levy, 1997). A bi-weekly meeting with rehearsals divided into two segments is a typical setup for a NHB. The first segment is comprised of small-group instruction and/or chamber ensemble coaching and the second portion is a full ensemble rehearsal. During the first segment of instruction, adult learners are organized by ability into small-group or chamber groups of similar instrumentation. The small-group instruction is directed by music education students from area institutions of higher learning. During the second portion of instruction, the small groups merge together to form a large ensemble which is often directed and coordinated by a music education professor.

Personality Profile

A personality profile is a useful tool to discover many traits or tendencies of individuals and/or groups. Personality traits remain consistent across a broad range of circumstances. They are stable and illustrate the regularity or intensity of a person's feelings, thoughts, and behaviors. These traits refer to the probabilistic patterns of acting and reacting that are used to characterize individuals and to distinguish them from others (McCrae & Costa, 1999). One purpose of this study was to discover if there was a relationship between NHB members' musical performing preferences, musical interests, importance of lifelong learning, rehearsal

activity preferences and respondents' personality traits. Personality trait information was obtained through the *International Personality Item Pool representation of the NEO-PI-R™* (IPIP-NEO) designed by Johnson (2001). In order to better understand personality traits, and the IPIP-NEO, it is important to review related literature regarding the history and background of the "Five Factor Model" of personality.

Five Factor Model (FFM)

The Five Factor Model (FFM) or "Big Five" has been acknowledged by many as a broad framework for organizing personality traits (McCrae & Costa, 1996; Piedmont, 1998). The FFM does not take into account every trait or represent a complete theory of personality. However, this model is regarded as a helpful tool or framework for organizing a wide range of personality traits such as extraversion (De Raad, 2000; Digman, 1996; Goldberg, 1993; McCrae & Allik, 2002; McCrae & Costa, 1996, 2003, Piedmont, 1998; Williams, Satterwhite, & Saiz, 1998; Zuckerman, 2005).

The study of personality traits has significant usefulness in the study of human behaviors. Research in the realm of trait theory has revealed that traits explain significant meanings about each individual. Such information provides relevant insights and clues into how a person reacts and responds across various situations and scenarios, and may go so far as to predict individual behavior in a given circumstance. The five-factor model depicts individual differences in an organized manner. This includes styles that are: individual, emotional, interpersonal, experiential, attitudinal, and motivational. Such a model for analysis provides an all-inclusive groundwork for the explanation of individual diversity. It

also focuses on distinguishing between basic tendencies that are abstract in nature and their seemingly more concrete characteristic adaptations. In essence, humans learn and become who they are in response to social comparisons, cues, and relations (Digman, 1996; McCrae & Costa, 1996).

The Big Five is comprised of five personality traits which represent a model of personality. The trait factors form a model that is represented by five domains (De Raad, 2000). All traits of the FFM are organized hierarchically from narrow and specific to broad and general dispositions. There are five broad domains (openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism). Each broad domain contains six individual facet scales for a total of 30 scales. These narrow and specific sub-domains or facets of personality tap into specific aspects of the five broad domains (De Raad, 2000; McCrae & Costa, 1996, 2003; Piedmont, 1998; Zuckerman, 2005).

The Big Five can help provide a comprehensive sketch that summarizes a person's emotional, interpersonal, experiential, attitudinal, and motivational styles (Costa & McCrae, 1996). The first domain is openness to experience. This domain also refers to an individual's originality, creativity, open-mindedness, unconventionality, artistic sensitivity, and propensity for intellectual exploration. The next domain is conscientiousness, which includes qualities such as competence and responsibility, organizational skills, self-direction, achievement-striving, and one's ability to plan. Extraversion is the third domain, which refers to a person's liveliness and high activity level, and also includes sociability, assertiveness, ambition, dominance, energy, cheeriness, and adventurousness. The fourth domain

is agreeableness or altruism which refers to being cooperative, trusting, compliant, flexible, courteous, and empathetic. The final domain is neuroticism, which is sometimes labeled by its opposite pole, emotional stability. Neuroticism pertains to negative emotion, anxiety, and general nervousness, and is the factor that addresses underlying persistent experiences of negative feelings such as fear, guilt, hostility, depression, personal insecurity, irritation, and low-self-esteem (Costa & McCrae, 1996; De Raad, 2000; Digman, 1996; Goldberg, 1993; John, 1990; McCrae & Allik, 2002; McCrae & Costa, 1996, 2003, Mount & Barrick, 1995; Piedmont, 1998; Williams, Satterwhite, & Saiz, 1998; Zuckerman, 2005). The broad domains, illustrative adjectives, and characteristics are show in Table 1.

Table 1

“Big Five” Theory Dimensions and Illustrative Adjectives

Dimension	Prototypical Characteristics	Illustrative Adjectives
Openness to Experience, Intellect, Culture	Imaginative, artistically sensitive, aesthetically sensitive, intellectual, depth of feeling, curiosity, need for variety.	Intellectual, creative, artistic, imaginative, curious, original, (unimaginative), (conventional), (simple), (dull), (literal-minded).
Conscientiousness	Responsible, dependable, able to plan, organized, persistent, need for achievement, persistence, scrupulousness	Organized, systematic, thorough, hardworking, planful, neat, dependable, (careless), (inefficient), (sloppy), (impulsive), (irresponsible).
Extraversion, Surgency, Sociability	Sociable, talkative, assertive, ambitious, active, dominance, tendency to experience positive emotions.	Extroverted, talkative, assertive, gregarious, energetic, self-dramatizing, (reserved), (introverted), (quiet), (shy), (unassertive), (withdrawn).
Agreeableness	Good-natured, cooperative, trusting, sympathy, altruism, (hostility), (unsociability).	Sympathetic, cooperative, warm, tactful, considerate, trustful, (cold), (rude), (unkind), (independent).
Emotional Stability, Adjustment, (Neuroticism)	Calm, secure, not nervous; (predisposition to experience anxiety, anger, depression, emotional instability).	Not envious, relaxed, calm, stable, confident, effective, (moody), (touchy), (nervous), (moody), (self-doubting).

* NOTE: Items in parentheses define the opposite pole of each dimension.

(Harvey, Murry & Markham, 1995)

Background of the Five Factor Model

The Five Factor Model (FFM) of personality is based on the lexical hypothesis which states that individuals have an inherent understanding of personality. The FFM can be traced as far back in history as the nineteenth century with the “lexical hypothesis” of Sir Frances Galton. He is credited with the idea that tests could be used to measure individual differences among people. Galton agreed that each person exhibits individual traits and these differences are well-represented in all languages, usually becoming set as single terms (Goldberg, 1990).

The FFM refers to the factorial analysis of trait-descriptive terms found in the natural language. These terms have been used by everyday people to interact with and understand one another. Since the FFM is a self-reporting instrument, the trait-descriptive terms need to use a language understood by all participants (Goldberg, 1990; McCrae & Costa, 1996; Mount & Barrick, 1995; Williams, Satterwhite, & Saiz, 1998; Zuckerman, 2005). The five broad personality domains have been validated in many different settings as well as many different languages and cultures (DeRaad, 2000).

Not only is the language or simplicity of terms important in the FFM, but the organization of the descriptive terms is expected to provide a useful guide to the range of traits that people possess (McCrae & Costa, 1996; Mount & Barrick, 1995). The first groundwork of the FFM was established when Allport and Odbert (1936) developed a list of trait terms by using an unabridged English dictionary and identifying as many words as they could that referred to personal characteristics. Once this list was created, they removed all words that were obscure, difficult, or

archaic as well as all synonyms and words referring to temporary states. This process narrowed the list from around 18,000 words to approximately 4,500 (Allport & Odbert, 1965).

In the mid 1940's Cattell (1947) continued this work and began a systematic study of personality traits based on the terms compiled by Allport and Odbert. Cattell researched psychological literature and combined Allport and Odbert's final list of 4,500 words and added personality descriptors. This list was later reduced to 171 clusters or variables by clustering synonyms. Cattell later reduced the number by using factor analysis and uncovered 12 to 16 primary factors. With this list, he was able to move toward the final goal of his research which was to identify the major personality dimensions represented by language (Cattell, 1947; De Raad, 2000; Digman, 1990; Goldberg, 1993; John, 1990; McCrae & Allik, 2002; McCrae & Costa, 1996, 2003, Mount & Barrick, 1995; Piedmont, 1998; Williams, Satterwhite, & Saiz, 1998; Zuckerman, 2005).

The next expanding phase of the FFM occurred in the 1980s when Goldberg and Digman indicated their support for a five-factor structure of personality (Digman, 1996). Later, Goldberg (1983) spoke about the FFM at the Gerontology Research Center in Baltimore at a research seminar organized by Costa and McCrae. At this time Costa and McCrae had already developed a three-factor model of personality that included neuroticism, extraversion, and openness to experience (NEO-PI) (Digman, 1996; Goldberg, 1983).

The NEO-PI originated from groups of items that were thoughtfully constructed and was the first questionnaire format measurement tool for the FFM.

This tool relied on adjectives to describe the five factors and sentences were used to capture the fine points of each of the facet scales. Factor analysis was utilized to confirm the sets in a consistent manner (Digman, 1990, 1996; Goldberg, 1983). Costa and McCrae continued to develop ideas proposed by Goldberg, adding agreeableness and conscientiousness to their model (Digman, 1996; Goldberg, 1983).

The NEO Personality Inventory – Revised (NEO PI-R™) is a modified measure of the Big Five personality factors. This tool was developed over a 15-year period and consists of 240 items phrased in the first person for self-reports or the third person for observer reports. This instrument is a comprehensive personality inventory based on the Five-Factor model of personality. This tool measures the five major personality domains as well as the five minor personality facets or traits which define each domain. The instrument uses a five-point scale from strongly disagree to strongly agree. The NEO PI-R™ is balanced to control for agreement and has internal consistency reliabilities for the five scales ranging between .76 and .93 (McCrae & Costa, 1985; Piedmont, 1998).

Costa and McCrae later published a substantial volume of research on the FFM, showing overlap between the five factors and concepts represented in existing personality inventories (Digman, 1996; Mount & Barrick, 1995). Costa and McCrae are given credit for encouraging widespread adoption of the FFM (Digman, 1996; Hough, 1997). The NEO-PI-R™ is the most frequently used FFM tool available (Piedmont, 1998).

International Personality Item Pool representation of the NEO-PI-R™

The emergence of the World-Wide Web in the 1990s opened many doors for researchers and data collection. First, time constraints of entering data by hand were trimmed significantly allowing instantaneous feedback for completing on-line instruments. Next, the World-Wide Web also opened doors for international data collection as opposed to only collecting information from persons within a specific physical proximity. Lastly, the cost of conducting a web-based survey is more cost efficient than previous methods of manually collecting data (Johnson, 2001).

Even with the advent of the World-Wide Web, researchers were faced with copyright issues of commercial personality tests being placed online. As a result, Goldberg (1999) in collaboration with researchers from the Netherlands and Germany developed a set of 1,252 items called the International Personality Item Pool (IPIP). The IPIP was placed on public-domain so research could be conducted without an issue of copyright infringement. Researchers working on the IPIP were able to empirically identify item sets that have psychometric properties that match or exceed those of commercial personality instruments (Goldberg, 1999; Johnson, 2001).

John Johnson wished to develop a web-based inventory that would collect, score, and interpret responses made by individuals taking a personality profile online. His research led him to discover the work of Goldberg and the IPIP. Johnson took the IPIP (300 item proxy for the NEO PI-R), and substituted items from Goldberg's IPIP for the items in the original NEO PI-R and changed response options. Johnson titled the online inventory the IPIP-NEO (Johnson, 2001).

Due to the length of the IPIP-NEO (300 questions), interest emerged in developing a shorter version of the personality inventory. Johnson discovered that businesses outside of the personality research field were interested in using the IPIP-NEO. However, the length of the inventory was not appropriate for the corporate realm. The goal was to reduce the IPIP-NEO “by 50% and maintain alpha reliability estimates of at least .70 for every scale” (Johnson, 2001, p. 6). After three phases, the short version (120 items) of the IPIP-NEO was created (Johnson, 2001) and posted in public domain on the World-Wide Web. Both the standard and shortened versions of the IPIP-NEO give immediate results of the personality profile to all respondents taking the inventory. The shortened version of the IPIP-NEO was used in this research project.

Upon completion of the IPIP-NEO, a detailed explanation of the domains and sub-domains or facets is automatically reported along with the participants’ scores (see Appendix N). Table 2 identifies the five domains and thirty facet scales for the IPIP-NEO. All domains and facets are explained in detail and upon completion of the IPIP-NEO, each individual is prompted to save and/or print the provided personality trait summary (Johnson, 2004).

Table 2

Five Domains and Thirty Facet Scales

Domains	Facet Scales
Openness to Experience	<i>Imagination</i> <i>Artistic Interests</i> <i>Emotionality</i> <i>Adventurousness</i> <i>Intellect</i> <i>Liberalism</i>
Conscientiousness	<i>Self-Efficacy</i> <i>Orderliness</i> <i>Dutifulness</i> <i>Achievement-Striving</i> <i>Self-Discipline</i> <i>Cautiousness</i>
Extraversion	<i>Friendliness</i> <i>Gregariousness</i> <i>Assertiveness</i> <i>Activity Level</i> <i>Excitement-Seeking</i> <i>Cheerfulness</i>
Agreeableness	<i>Trust</i> <i>Morality</i> <i>Altruism</i> <i>Cooperation</i> <i>Modesty</i> <i>Sympathy</i>
Neuroticism	<i>Anxiety</i> <i>Anger</i> <i>Depression</i> <i>Self-Consciousness</i> <i>Immoderation</i> <i>Vulnerability</i>

Summary

Older Americans are devoting more time to leisure activities. The need for educational endeavors among the elderly will parallel their growth as a force within our communities (Cornman & Kingson, 1996; Merriam & Caffarella, 1999; Ward, 1984). The New Horizons Band is an important venue providing an intellectually stimulating activity for older adults (Ernst & Emmons, 1992; New Horizons Band, 2005).

Although the elderly represent an intelligent and experienced sector of today's society, older adults will experience a change in their mental cognition. Studies demonstrate the degree of change cannot be adequately predicted. Research literature suggests that capabilities do not decrease to the same degree in all individuals (Schaie, 1996).

Educators need to understand the basic differences in pedagogical and andragogical techniques if they are to help the older learner. The adult student tends to be independent, intrinsically motivated, and has a greater need to be self-directed. For the adult, andragogy allows more freedom in the learning environment, resulting in a more positive learning experience (Cross, 1981; Knowles, 1980).

Knowledge of personality traits may assist program designers and educators in the classroom. By understanding the diversity in personality traits, a teacher can direct students to take ownership of their own education and create a successful learning environment. Understanding personality traits may be the key to diagnosing, motivating, and enhancing the educational experience (Knowles, 1980; Myers & McCaulley, 1993).

The following chapter will discuss the design and statistical procedures utilized in the study and pilot study. An in-depth description of the research population along with the data collection instruments will be examined. Chapter three will conclude with an overview of data analysis procedures used for this research project.

CHAPTER III

METHODS AND PROCEDURES

The purpose of this study was to discover the needs and musical interests of New Horizons Band members. A secondary purpose was to determine the relationship between musical interests, preferences and personality traits. The purpose was achieved by the use of an anonymous Music Interest Questionnaire (MIQ) designed by the researcher and the short form for the *International Personality Item Pool Representation of the NEO PI-R™ (IPIP-NEO)* designed by John A. Johnson (2001).

This chapter presents the study's methodology. The first section discusses the design of the study. The second segment focuses on the research population. A third section describes the instrumentation, as well as the pilot study. The fourth and final portion of this chapter gives an overview of data analysis procedures that will be used in this study.

Research Design

This descriptive study employed quantitative methodology to address the research questions. The two main sources of data are John A. Johnson's short form for the *International Personality Item Pool Representation of the NEO PI-R™ (IPIP-NEO)*, and the researcher designed *Music Interest Questionnaire (MIQ)*. The questionnaire/survey method allows for the collection of preliminary data that may be useful to future adult educators and researchers.

Participants

Participants in this study were New Horizons Band members in the United States and Canada. All New Horizons Band directors (except the NHB that participated in the pilot study) were invited to assist in this research study by announcing the study to his or her band members. At the time the research project was conducted, there were 97 New Horizons Bands located in the following states and provinces: Alaska (1), Arkansas (1), Arizona (2), California (5), Colorado (2), Delaware (1), Florida (5), Georgia (4), Illinois (7), Indiana (3), Iowa (5), Kansas (1), Louisiana (1), Manitoba (1), Maryland (2), Michigan (5), Minnesota (1), Missouri (3), New Hampshire (1), New Mexico (1), New York (4), North Carolina (3), North Dakota (2), Ohio (6), Oklahoma (1), Ontario (5), Oregon (5), Pennsylvania (2), South Dakota (2), Texas (5), Virginia (2), Washington (4), and Wisconsin (4) (New Horizons Band, 2005). In addition to the above listed New Horizons Bands, there were fourteen New Horizons Strings, three New Horizons Choral ensembles, and one New Horizons Blue Grass Band in the United States and Canada (New Horizons Band, 2005). This study was directed toward the band organizations; therefore the string, choral, and blue grass groups were not included.

Instrument Development

All of the information for this study was collected through a web-based survey. The online survey allowed for rapid collection of sizable amounts of information from a broad geographically dispersed population. Benefits of a web-based survey included rapid and automatic entry of data as it is sent to a server. The

online survey consisted of two instruments used in conjunction: *Music Interest Questionnaire* and *IPIP-NEO*.

Music Interest Questionnaire

The *Musical Interest Questionnaire* (MIQ) used in the study was a modified version of the original MIQ previously used in the pilot study. The pilot MIQ was designed by the researcher using models from similar research studies (Darrough, 1990; Larson, 1983; McCullough, 1981; Pike, 2001), books from established andragogues (Cross, 1981; Merriam & Caffarella, 1999), principles set forth in Warwick and Lininger's *The Sample Survey: Theory and Practice* (1975), and suggestions from faculty members within the school of music and psychology departments at the researcher's university (see Appendix C).

The MIQ used in this research project is a 33-question inquiry divided into six sections:

1. Demographics
2. Musical and life experiences
3. Musical interests and preferences
4. Interest in lifelong learning
5. Expectations of a musical program
6. Health issues and needed accommodations

The first section of the survey obtained demographic information such as region, gender, employment status, marital status, age, educational level, income, and instrument selection. Section two consists of questions regarding life and musical experiences. The researcher was interested in life experiences over the past

two years and how, if at all, would these experiences affect participation in a musical activity such as NHB. This section also inquired about previous participation in music, such as taking private voice or instrument lessons, as well as inquiring if the subjects' parents encouraged participation in musical activities as a child. Subjects were given the option to check all of the items that apply to their life/situation.

The next section solicited information regarding musical interests and preferences such as the type of music subjects are interested in listening to as well as the type of music they wish to play. Other questions in this section inquire about participants' interest in improving musical skills, preferred performing locations, as well their ensemble preference. Another interest and preference addressed in this section is the willingness to participate in specific rehearsal activities, such as singing or playing a short passage of music, and their interest in learning specifics about the music they are playing, for example, history and theory. Likert-type scale items are used to collect data for this section. Some items provided a space for respondents to make additional comments regarding their interests and preferences.

Likert-type scale items were used in section four to gather information regarding subjects' interest in lifelong learning. The next section inquired about the expectations older adults have of a music program such as the NHB. Some of the expectations listed include joining a musical group for socialization opportunities to meet new people and learning to play a new or different instrument. Subjects were encouraged to select all of the expectations that applied to their personal situation.

The sixth section inquired about current health issues (i.e. arthritis and hearing loss) and needed accommodations like a wheel chair ramp or large print music. Another question addressed in this section is preferred rehearsal time: morning, afternoon, or evening. Subjects were given the option to check all of the listed items that applied to their personal preference (see Appendix D).

International Personality Item Pool representation of the NEO PI-R™

Lewis R. Goldberg, in collaboration with international researchers from the Netherlands and Germany assembled the original *International Personality Item Pool (IPIP)*. The IPIP is a 300-item proxy for Costa and McCrae's NEO PI-R. John A. Johnson substituted items from the original NEO PI-R, changed response options on the IPIP, and created the an on line inventory called the *International Personality Item Pool representation of the NEO PI-R™ (IPIP-NEO)*. In November of 2002, Johnson was asked to develop a shorter version of the IPIP-NEO that was about 50% shorter (15-25 minute) in length and maintained alpha reliabilities of .70 or higher for every scale. The short form of the IPIP-NEO is designed to measure exactly the same traits as the original IPIP-NEO, but with fewer items and with more efficiency. The result was a shortened version of the IPIP-NEO which will be used in this study (see Appendix G).

The Short Form for the IPIP-NEO contains five broad personality domains with each domain containing six sub-domains or facets. The five domains are: (a) openness to experience, (b) conscientiousness, (c) extraversion, (d) agreeableness, and (e) neuroticism. The opening page of the IPIP-NEO consisted of some introductory instructions on taking the personality profile. The Short Form of the

IPIP-NEO consisted of 120 questions and was divided into two pages. Items were presented in a column on the left side of the table. The right side of the table included five small circles called *radio buttons*. The *radio buttons* allowed the survey participants to choose between five answers. Only one *radio button* could be chosen per item and all were labeled: *very inaccurate, moderately inaccurate, neither accurate nor inaccurate, moderately accurate, and very accurate*. Upon completing the Short Form of the IPIP-NEO, participants automatically received their results and an explanation of each domain (see Appendix N) (Johnson, 2005). Each participant was encouraged to print or save a copy of his/her results since they would not be automatically saved.

Pilot Study

A pilot study was conducted by the researcher and administered to New Horizons Band members in a medium-sized community in the southwestern United States. Prior to administering the MIQ to the target population, the questionnaire was critiqued by graduate students in two music education classes and two music education faculty members of the University of Oklahoma. Each member was provided with a copy of the MIQ, asked to comment on any ambiguities, and make suggestions for improvement. The MIQ was revised accordingly (see Appendix C).

The research sample for the pilot study consisted of 19 participants (out of 22 total members). Once permission was obtained from the *Institutional Review Board* the researcher submitted materials to the director and explained the process for administering the PSI and MIQ.

The researcher attended two rehearsals, each time explaining the purpose of the research, format of the questionnaire, and the University policies regarding anonymity and participation. Additionally, participants were provided with written notification of this information (see Appendix A).

Once this information was shared with the organization, the researcher exited the room in order to allow the director to explain how to create the Personal Identification Number (see Appendix B) and to administer the PSI and MIQ. The PIN protected participant's identity while allowing a convenient way for subjects to have access to their PSI scores. On the second visit, the researcher shared the survey information with all NHB members and solicited the participation of members who were absent the previous meeting.

The directors made three more attempts to invite members who were absent on previous days when the researcher presented the surveys to participate. Members who had previously completed the PSI and MIQ were not asked to participate a second time. The original surveys and four extra attempts produced 19 useable questionnaires. Once all questionnaires were obtained and each PSI scored, results were placed in a sealed envelopes (identifiably only by PIN) and returned to the NHB director for distribution to participants (see Appendix F).

Pilot study reliability was tested using Chronbach's alpha. There were six clusters of items that were grouped together to test for reliability. Out of the six, three clusters had relatively high reliability coefficients of .90, .85, .81, and .69 (see Table 3). The three clusters with low reliability (.36, and .35) were examined and revised as needed by rewording the weak items (see Table 4).

Table 3

Pilot Study: Chronbach's Alpha – Relatively High Reliability Coefficients

Cluster 1 – 4	Chronbach's Alpha
Cluster 1	.90
Question 28: How important is it to improve the following skills? e: Singing	
Question 29: How willing would you be to participate in the following? a: Singing in a group b: Singing alone on neutral syllables c: Singing with others on neutral syllables	
Cluster 2	.85
Question 26: When in a rehearsal, how interested would you be to learn about the music you are playing? e. Theory	
Question 28: How important is it to improve the following skills? c. Theoretical knowledge	
Cluster 3	.81
Question 30: How much do you enjoy performing in the following groups? b: Solo performance c: Woodwind, brass, or percussion ensembles d: Small ensembles (duet, trio, quartet, etc.)	
Question 31: How much do you enjoy performing in the following performance settings? d: Solo & ensemble performances	
Cluster 4	.69
Question 24: Do you enjoy playing music for other people?	
Question 25: Would you be interested in playing a solo or playing in a small ensemble?	

N = 19

Table 4

Pilot Study: Chronbach's Alpha – Relatively Low Reliability Coefficients

Clusters 5 – 6	Chronbach's Alpha
Cluster 5	.36
Question 21: Would you like to hear other people from the New Horizons Band play a solo or in a small ensemble?	
Question 23: Would you like to hear college students play a solo or in a small ensemble?	
Cluster 6	.35
Question 28: How important is it to improve the following skills? a. Counting Rhythms	
Question 29: How willing would you be to participate in the following? d. Clapping rhythms and/or patterns	

N = 19

After the pilot study was completed, the researcher re-evaluated the delivery method of the survey and decided the most efficient way to reach a greater population was to make the MIQ an online survey instrument. Some of the benefits of using an online instrument include: opportunity to reach a larger demographic population, more cost efficient, immediate receipt of personality profile results, and guaranteed anonymity.

Research indicates that personality instruments such as the PSI and Myers-Briggs Type Indicator are very useful tools to discover individuals' personality styles. The PSI, which was used for the pilot study, is a valid instrument and may be used in conjunction with survey instruments such as the MIQ. However, the review of literature reveals some criticism regarding the dichotomous choice format in

instruments such as the MBTI and PSI. Some researchers assert that the negative correlations within the MBTI's theoretically contrasting dimensions are results of a forced-choice design. A typical question asks the participant to select his/her preferred statement from two choices. This type of question forces an individual to discard one statement in order to choose the other. This method can create definite factors that may not accurately reflect a person's true preference(s) (Girelli & Stake, 1993). Murray (1990) critiques the MBTI stating that an ideal assessment takes the pattern of each opposing factor into account, rather than simply the preferred component. Barbuto (1997) suggests there could be an improvement in the significance of the score by the use of continuous measures of the variables. He advocates using a five-point scale to measure proportional agreement, as opposed to a dichotomous choice format.

For these reasons the researcher was seeking a valid instrument that could accompany the MIQ yet still yield the same information needed to obtain results for this study. After suggestions from university faculty, further research, and examinations of different personality assessment instruments, the researcher discovered the "Big Five" or Five Factor Model of personality. The online IPIP-NEO incorporates the Big Five model and was used for the personality measurement tool in this research.

Upon conclusion of the pilot study, the researcher reviewed the MIQ to determine if additional revisions are warranted. The following changes were made to the original survey instrument:

1. The survey was placed online therefore eliminating the need for a Personal Identification Number.
2. In order to obtain more detailed information, additional item selections were incorporated into the demographic questions regarding level of education, employment status, and marital status.
3. In order to obtain exact information regarding age, estimated gross yearly income, and the number of years having played the instrument, the questions were changed from categorical to continuous.
4. Questions not pertaining directly to the research were omitted.
5. Additional musical style items were added to the questions pertaining to preferred listening and playing selection. Additionally, the question format was changed from “select all that apply” to Likert-type scale items.
6. The question regarding accommodations was expanded to be more specific and include health issues that might be of importance to directors of musical ensembles.
7. A question regarding preferred rehearsal times was included in the revised MIQ.
8. Questions with low reliability alphas were reworded to be more specific.
 - a. The question, “Would you like to hear other people from the New Horizons Band play a solo or in a small ensemble?” was changed to, “How interested are you in listening to other people

from the New Horizons Band play a solo or in a small ensemble?”

- b. The question, “Would you like to hear college students play a solo or in a small ensemble?” was changed to, “Would you like to hear college students or professionals play a solo or in a small ensemble?”
- c. The question, “How willing would you be to participate in the following?” was changed to, “During a rehearsal, how willing would you be to participate in the following?”
- d. The question, “How important is it to improve the following skills?” was changed to, “When in a rehearsal, how important is it to improve the following skills?”

Procedures

All New Horizons Band directors nation-wide (except the NHB that participated in the pilot study) were invited to assist in this research study. Roy Ernst (founder of New Horizons Band) served as the initial liaison between the researcher and NHB band directors. In order to protect NHB directors from numerous unsolicited emails and phone calls, Ernst and the NHB organization requested to conduct the initial contact. The researcher provided Ernst with a written invitation asking for assistance in this study (see Appendix G). Once Ernst received the invitation, he then distributed the request for assistance in this research project via email to all NHB members in the United States. All directors wishing to assist in this project then contacted the researcher and provided necessary contact

information. Directors were asked to provide (or confirm) the following information: (a) address to send packets, (b) email of director, (c) number of NHB participants in the group, and (d) number of NHB participants that do not have Internet access (see Appendix I).

Each director that agreed to assist with the research was mailed a packet containing the following information: (a) poster to be displayed as a reminder to participate in this study, (b) book mark for each NHB participant including basic information about the study and URL for the on-line survey, (c) personal thank you letter to each director including researcher contact information, (d) script for explaining the research project to his or her ensemble, (e) informed consent letter explaining participants' rights – to be read to participants during rehearsal. The informed consent letter also appeared on the first page of the on-line survey (see Appendix A, J, & K).

Directors were asked to allow approximately 10 minutes for presentation and distribution of materials during a NHB rehearsal. The participants were encouraged to complete the on-line survey within a two week time period. After ten days, a follow-up reminder was sent to all directors encouraging participation from NHB band members (see Appendix L). Four more weeks were allowed for completion of this survey after the follow-up reminder notice. Data from the online questionnaires were downloaded into a database.

Data Analysis

Numerous statistical procedures were used to tabulate data for this research project. All data were analyzed using the Statistical Package for the Social Sciences

(SPSS). Descriptive statistics such as means and standard deviations and frequencies and percentages were used to summarize group trends and compare response trends across different subgroups. Cross-tabulations were used to organize frequency data and look at relationships between variables. A Pearson chi-square was used to see if there were significant differences between observed and expected distributions. Spearman's rho rank-order correlation coefficients were used to look at relationships between personality scores and other variables. Responses to the Likert-type scale items were not evenly distributed therefore it was deemed appropriate to use Spearman's rho rank-order correlations.

Summary

The methods and procedures utilized in this study will provide data assessing the needs and interests of older adult learners and the relationships between their personality traits and musical interests. This research could be beneficial to educators currently involved in a musical program for older adults, as well as to individuals designing a program for senior adults. Benefits might include a better understanding of personality traits (measured by the IPIP-NEO) which might give insight into the way a person interacts with others and/or chooses to participate in specific ensembles. Since individuals tend to gravitate toward certain domains, further study of preferred learning styles and personality traits could help people working with older adults. The findings of this research could help not only with classroom teaching but also program design.

This study was directed toward band organizations, specifically the NHB. With modification to fit other ensembles, andragogues may find the questionnaire

instrument to be useful for program and curriculum design in other musical areas.

With the use of this survey instrument, educators can discover the following information about their students: (a) clearer understanding of health issues and needed accommodations, (b) preferred musical selections for performance, (c) relationship of personality trait and musical interests and preferences, (d) interests and goals of NHB participants, (e) rehearsal time preferences, and (f) the affect of life changing-events on participation

It is anticipated these findings will contribute to the body of knowledge for curriculum and program design in the field of music education for older adults. As the adult population increases in number, lives longer, and retires earlier, activities and programs, such as NHB, are needed. Information collected from this study, as well as the creation of the MIQ and use of the IPIP-NEO can further assist andragogues in designing programs and curriculum that better serve our growing senior adult population.

CHAPTER IV

RESULTS

Interpretation of the Data

The purpose of this study was to discover the needs and musical interests of New Horizons Band members. A secondary purpose was to determine the relationship between musical interests, preferences, and personality traits. The purpose was achieved by the use of an anonymous *Music Interest Questionnaire* (MIQ), which was designed by the researcher, and the *International Personality Item Pool representation of the NEO-PI-R™* (IPIP-NEO), which was designed by Johnson (2001).

Data for the study were collected through a researcher designed questionnaire (MIQ) which was intended to gather information from older adults participating in the NHB. Subjects who agreed to participate in this study received a bookmark with the URL to the online MIQ survey. The survey consisted of three parts: information and consent form, IPIP-NEO, and the MIQ. Once a subject agreed to participate, the survey link directed them to the IPIP-NEO website. Once this instrument was completed, subjects received their results and at this time were prompted to transfer the results to the bookmark and then to the MIQ (see Appendix O). The two instruments were not combined into one because the IPIP-NEO instrument is only available as an online instrument which is public domain. Results of these data are presented in a later section of this chapter.

Responses to the information solicited from the MIQ are presented in text, figures, and tables. Descriptive statistics such as means and standard deviations and frequencies and percentages were used to summarize group trends and compare response trends across different subgroups. Cross-tabulations were used to organize frequency data and look at relationships between variables. A Pearson chi-square was used to see if there were significant differences between observed and expected distributions. Spearman's rho rank-order correlation coefficients were used to look at relationships between personality scores and other variables. Responses to the Likert-type scale items were not evenly distributed therefore it was deemed appropriate to use Spearman's rho rank-order correlations.

Participants in this study were New Horizons Band members in the United States and Canada. All New Horizons Band directors (except the NHB that participated in the pilot study) were invited to assist in this research by announcing the study to his/her band members and inviting them to participate in the online survey.

Out of 97 active New Horizons Bands in the United States and Canada, 28 directors (27 from the United States and one from Canada) responded and agreed to assist with this research project during the eight-month period that the on-line survey was active. Each NHB director agreeing to assist with this project received a packet containing a flyer for display and a bookmark for each band member (see Appendix O). Each director indicated the total number of NHB members in their group. To allow for error and loss, each packet contained an additional five bookmarks over the indicated total membership population (155 total extra bookmarks). The 28 bands

participating in this study yielded a total number of 1,490 perspective participants. Two directors requested additional materials bringing the total number of materials mailed to 1,806 bookmarks (this figure includes the 155 extra bookmarks) and 30 flyers. The online survey was open for eight months and yielded 127 respondents.

This study yielded a relatively small sample ($N=127$) of a fairly large population (1,490 possible participants). As a result, this study had a wide confidence interval of 8.32 with a confidence level of 95%. It would be inappropriate to generalize these results to the larger New Horizons Band population in the United States and Canada.

Numerous descriptive statistics such as means and standard deviations, frequencies and percentages, cross-tabulations, and a Pearson chi-square were used to discover information about the respondents. The majority of questions used in the survey were listed individually; therefore possibly yielding different number of respondents for each question. The number of respondents varied from 124 to 127 on all questions, with the exception of the question regarding income which yielded $n=119$. Likert-type data are reported in decreasing order from highest to lowest mean score.

Research Question 1

Research Question

What demographics, background characteristics, level of participation, and musical interests and preferences are evident among New Horizons Band members?

Characteristics of the Population

The population for this study was comprised of NHB members across the United States and Canada. A total of 127 ($N=127$) adult NHB members responded to the online survey and the majority of respondents were female (59.1%). Frequencies and percentages for employment status are shown in Table 5. The majority of respondents were retired (46.5%) and many were still working full time (31.5%).

Table 5

Frequencies and Percentages for Current Employment Status

Survey Item	Frequency	Percent
Retired	59	46.5
Working full time	40	31.5
Retired, but working part time	16	12.6
Working part time	8	6.3
Unemployed - not retired	2	1.6
Retired, but working full time	1	.8

Table 6 summarizes the frequencies and percentages for the marital status of the sample. The table shows the majority of respondents were married (67.7%). The frequency rate drops considerably and a much smaller number of subjects indicated they were widowed (9.4%). This marital category is closely followed by an equal number of participants indicating they are divorced or divorced and remarried (both 7.9%).

Table 6

Frequencies and Percentages for Marital Status

Survey Item	Frequency	Percent
Married	86	67.7
Widowed	12	9.4
Divorced	10	7.9
Divorced & Remarried	10	7.9
Never Married	5	3.9
Separated	3	2.4

The target population for the New Horizons organization is age 50 and above. However, each group can allow people below the age of 50 into their ensembles if they wish. For this study, subjects were asked to enter their actual age. Out of 127 respondents, 16 people were under the age of 49. The age of 68 yielded the most number of responses (7.9%). This was closely followed by the ages of 58, 61, and 65, with each having 6.3% of the NHB population. Table 7 shows descriptive statistics for the age distribution of this study.

Table 7

Descriptive Statistics for Age Distribution

Age Distribution	<i>n</i> =127
Mean	61.05
Median	62.00
Mode	68
Range	55
Minimum Age	30
Maximum Age	85

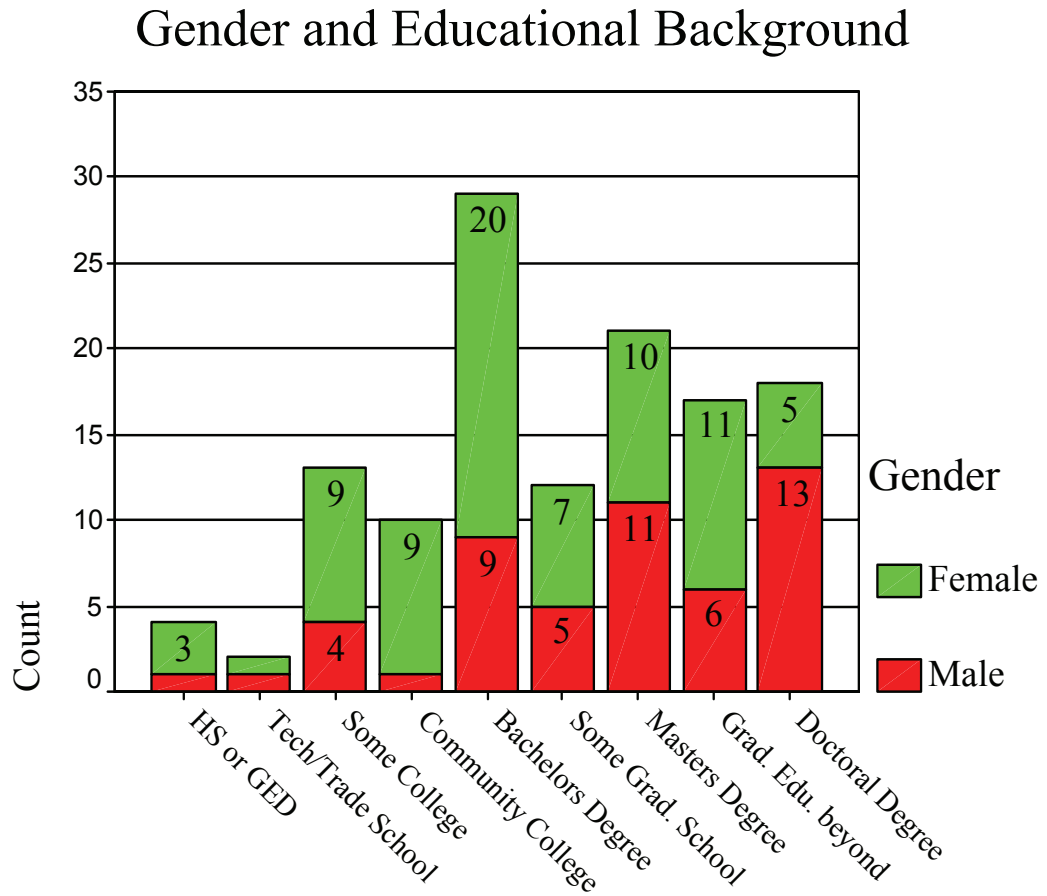
The educational level of the sample is summarized in Table 8. The largest group of responses fell into the category of having completed college or a university degree (bachelor's) (22.8%). The next indicated level of completed education was master's degree (16.5%) closely followed by a doctoral degree (14.2%). Overall, the subjects in the study were relatively well-educated. Cross-tabulations were calculated and (Figure 1) reveals a substantial number of women holding degrees of higher education and few NHB members indicating their highest level of education to be high school/GED and Technical trade school. A Pearson chi-square indicated no significant difference between the observed and expected distribution of educational status by gender.

Table 8

Frequencies and Percentages for Highest Level of Education

Survey Item	Frequency	Percent
High School or GED	4	3.1
Technical or Trade School	2	1.6
Some College (No Degree)	13	10.2
Community College Degree	10	7.9
College or University Degree (Bachelor's)	29	22.8
Some Graduate School (No Degree)	12	9.4
Graduate or Professional Degree (Masters)	21	16.5
Graduate education beyond Master's Degree	17	13.4
Graduate or Professional Degree (Doctoral)	18	14.2

Figure 1



An estimate of gross yearly household income was reported by 119 respondents. From the 127 total survey responses, eight subjects (5.5%) did not complete the income question of the survey. A summary of mean, median, mode, and range for annual income is presented in Table 9. The average income reported was \$75,238.66. The most frequently reported income was \$100,000 (10.2%). This was closely followed by 9.4% indicating an income of \$60,000 and 5.5% reporting an income of \$80,000. Next, the incomes of both \$70,000 and \$75,000 had 4.7% of the respondents indicating these figures for gross annual household income.

Table 9

Descriptive Statistics for Approximate Gross Yearly Income

Yearly Income	<i>n</i> =119
Mean	\$ 75,238.66
Median	\$ 70,000
Mode	\$100,000
Range	\$350,000

Participants and region

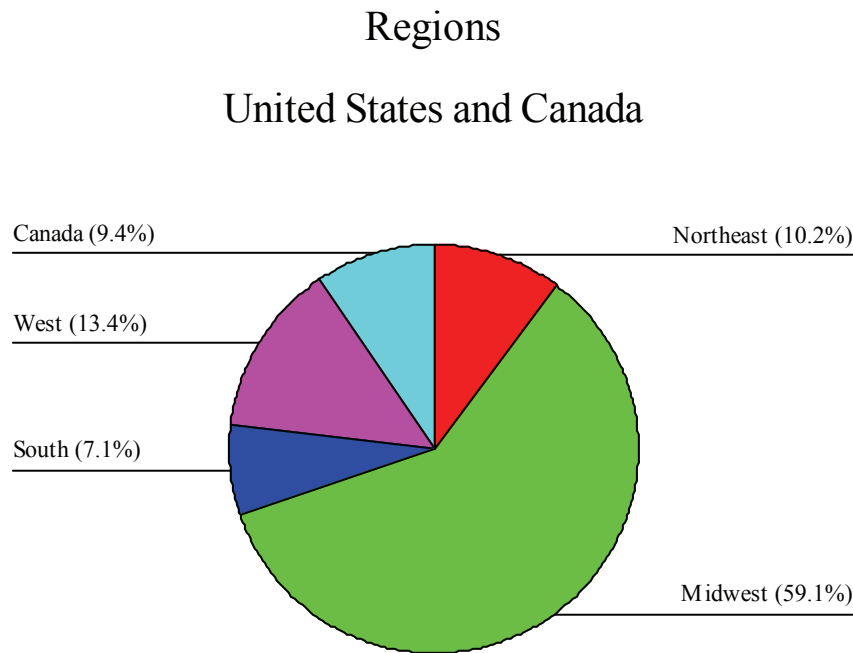
Respondents were placed into regional categories upon collection of all data (Figure 2). The regions used for this study were the same as the regional categories used by the United States Census Bureau (see appendix M). There were 18 states represented and one Canadian province (see Table 10). The majority of subjects reside within the Midwest area of the United States (59.1%).

Table 10

Region Distribution and frequencies by State and Province

Region	State	Frequency
Northeast ($n=13$)	Main	1
	New York	11
	New Hampshire	1
Midwest ($n=75$)	Iowa	17
	Illinois	21
	Indiana	6
	Kansas	1
	Michigan	8
	Ohio	11
	South Dakota	6
	Wisconsin	5
South ($n=9$)	Florida	3
	Texas	1
	Virginia	5
West ($n=17$)	Arizona	1
	Colorado	13
	New Mexico	2
	Oregon	1
Canada ($n=12$)	Ontario	12

Figure 2



Instrument played in New Horizons Band

Subjects were asked to indicate the instrument currently played in the NHB. Categories included: flute/piccolo, clarinet, saxophone, trumpet, French horn, baritone/euphonium, tuba, percussion, and other. Results indicate that 18.9% of the subjects ($n=124$) reported “other” as their selection. Woodwind instruments included clarinet (18.1%), flute (17.3%), and saxophone (11.0%). The brass section consisted of trumpet (11.0%), baritone/euphonium (7.9%), French horn (6.3%), and tuba (2.4%). Results indicated 4.7% of the respondents played Percussion. Upon completion of the study the researcher discovered the instrument trombone was not included in the selection list as a survey item. The survey did include a category of “other” which subjects could have selected as their response.

Participants in the NHB may have the option to learn to play a new or different instrument. Many of the respondents (59.1%) indicated they are not learning a new instrument. However, 39.4% of respondents did state they are playing a new or different instrument than they previously played. The mean, median, mode, and range for the number of years subjects indicated playing their current NHB instrument is shown in Table 11. The average number of years to play an instrument was 17.51. The years indicated ranged from one to 62 with the largest frequency of members having played their instrument for five years.

Table 11

Descriptive Statistics for Years Played Instrument

Number of years played instrument	<i>n</i> =125
Mean	17.51
Median	9.00
Mode	5
Range	62

Table 12 indicates the frequencies and percentages for the subjects' response to why they chose to play the instrument currently being playing in the NHB. Respondents could select all answers that applied. The majority of subjects (54.3%) indicated they had played this instrument when they were in school.

Table 12

Frequencies and Percentages for Current Instrument Selection

Survey Item	Frequency	Percent
Played this instrument in school	69	54.3
They needed someone to play this instrument	11	8.7
Someone in my family played this instrument	11	8.7
Always wanted to play this instrument	23	18.1
Other	25	19.7

*NOTE: Respondents were instructed to check all that apply for this item.
Therefore totals may exceed 100%

Expectations of musical program

The researcher encountered a problem with the question “What expectations do older adults have of a musical program such as NHB.” A survey company was used to host the questionnaire for this research study. Once the survey was online and subjects were actively participating, the researcher discovered that all data were not being recorded for question 62, “Why did you choose to participate in the New Horizons Band?” The question asked subjects to select all that apply. However, preliminary data analysis revealed that only one response was being recorded if any at all. The researcher contacted the hosting website and no error was found in the structure and set-up of the question. It was suggested that the question be deleted and resubmitted to the online survey. Since the study was near completion the question was not modified. Given that data obtained from this question were limited, the following information was collected. The subjects indicated their highest expectations were to learn to play a new or different instrument ($n=39$) and to obtain further

knowledge on the instrument they already play ($n=39$). The category of social (wanted to meet new people, $n=20$), was the next expectation indicated by subjects. Fewer subjects indicated their expectations were escape (want to get away from routine and/or personal problems, $n=4$), educational ($n=3$), other ($n=3$), and cultural knowledge ($n=1$).

Musical listening preferences

Frequencies and percentages (see Table 13) along with means and standard deviations of respondents' preferred musical styles for listening purposes were calculated. The highest preference ratings were observed for music from their young adult years ($M=3.65$). The preferences of classical music and tunes from musicals and/or Broadway productions both closely followed with a mean of 3.56. Other preferred musical listening selections included jazz ($M=3.42$), classical music – 1900 to present ($M=3.32$), holiday music ($M= 3.30$) and big band tunes ($M=3.18$). The lowest preference ratings were for country and western ($M=2.23$), new age ($M=2.18$), and hard rock music ($M=1.66$).

Table 13

Frequencies and Percentages for Music Listening Preferences

Survey Item	Almost Never		Seldom		Neutral		Frequently		Almost Always	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Music from young adult yrs.	4	13.1	13	10.2	25	19.7	63	49.6	19	15.0
Classical	5	3.9	25	19.7	15	11.8	54	42.5	25	19.7
Musicals/ Broadway	3	2.4	21	16.5	23	18.1	59	46.5	19	15.0
Jazz	6	4.7	23	18.1	32	25.2	39	30.7	24	18.9
Classical (1900 to present)	6	4.7	24	18.9	33	26.0	46	36.2	15	11.8
Holiday	10	7.9	18	14.2	35	27.6	48	37.8	14	11.0
Big band	15	11.8	24	18.9	17	13.4	62	48.8	7	5.5
Marches	11	8.7	28	22.0	31	24.4	46	36.2	8	6.3
Chamber	20	15.7	29	22.8	23	18.1	42	33.1	7	5.5
Blues	17	13.4	38	29.9	28	22.0	41	32.3	1	.8
Folk songs/ spirituals	19	15.0	33	26.0	36	28.3	33	26.0	3	2.4
Patriotic	25	19.7	30	23.6	30	23.6	35	27.6	4	3.1
Popular rock	24	18.9	38	29.9	28	22.0	30	23.6	3	2.4
Sacred	33	26.0	32	25.2	20	15.7	34	26.8	6	4.7
Religious anthems	35	27.6	30	23.6	23	18.1	30	23.6	6	4.7
Opera	38	29.9	30	23.6	25	19.7	24	18.9	7	5.5
Ethnic/world	29	22.8	44	34.6	32	25.2	14	11.0	6	4.7
Country & Western	39	30.7	41	32.3	24	18.9	17	13.4	3	2.4
New age	46	36.2	35	27.6	19	15.0	20	15.7	3	2.4
Hard rock	79	62.2	21	16.5	14	11.0	7	5.5	3	2.4

The type of ensemble or group NHB members prefer to listen to was investigated. Subjects were asked to indicate the level in which they enjoy listening to other people perform at live concerts using Likert-type scale items. Frequencies and percentages (see Tables 14 and 15) along with means and standard deviations were calculated and the majority of respondents favored listening to people play music at live concerts ($M=4.42$). However, NHB members frequently or almost always indicated that they preferred to listen to professionals ($M=4.24$) or other band members play a solo or perform in a small ensembles ($M=4.20$). Overall, respondents were very interested in listening to others perform in a variety of settings.

Table 14

Frequencies and Percentages for Ensemble Listening Preferences – Part 1

Survey Item	Almost Never		Seldom		Neutral		Frequently		Almost Always	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Enjoy going to concerts and listening to other people play music	0	0.0	4	3.1	10	7.9	40	31.5	70	55.1

Table 15

Frequencies and percentages for Ensemble Listening Preferences – Part 2

Survey Item	Not Interested		Somewhat Interested		Neutral		Interested		Very Interested	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Listening to professionals play a solo or in a small ensemble	2	1.6	8	6.3	9	7.1	45	35.4	61	48.0
Listening to people from the NHB play a solo or in a small ensemble	4	3.1	7	5.5	6	4.7	51	40.2	57	44.9

Musical performing preferences

Frequencies and percentages (see Table 16) along with means and standard deviations of the respondents' preferred styles of music for playing purposes were calculated. Highest preference ratings were observed for music from musicals and/or Broadway ($M=4.27$). Other preferred playing selections included big band tunes ($M=4.20$), marches ($M=4.02$), holiday music ($M= 3.75$) and popular music from their young adult years ($M=3.69$). The lowest preference ratings were new age ($M=2.17$), country and western ($M=2.02$), and hard rock music ($M=1.37$).

Table 16

Frequencies and Percentages for Musical Performing Preferences

Survey Item	Almost Never		Seldom		Neutral		Frequently		Almost Always	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Musicals/ Broadway	4	3.1	4	3.1	5	3.9	53	41.7	58	45.7
Big band	4	3.1	9	7.1	4	3.1	48	37.8	59	46.5
Marches	4	3.1	10	7.9	8	6.3	61	48.0	42	33.1
Holiday	7	5.5	16	12.6	10	7.9	58	45.7	32	25.2
Classical	7	5.5	18	14.2	10	7.9	54	42.5	35	27.6
Music from young adult yrs.	9	7.1	13	10.2	15	11.8	58	45.7	29	22.8
Classical (1900 to present)	6	4.7	23	18.1	15	11.8	48	37.8	32	25.2
Jazz	11	8.7	24	18.9	15	11.8	43	33.9	32	25.2
Patriotic	14	11.0	21	16.5	16	12.6	48	37.8	24	18.9
Chamber	14	11.0	22	17.3	20	15.7	43	33.9	25	19.7
Blues	16	12.6	24	18.9	19	15.0	46	36.2	20	15.7
Folk songs/ spirituals	14	11.0	30	23.6	17	13.4	51	40.2	12	9.4
Sacred	24	18.9	23	18.1	20	15.7	40	31.5	17	13.4
Religious anthems	28	22.0	26	20.5	22	17.3	35	27.6	12	9.4
Ethnic/world	32	25.2	28	22.0	26	20.5	26	20.5	12	9.4
Opera	43	33.9	18	14.2	22	17.3	24	18.9	15	11.8
Popular rock	44	34.6	33	26.0	18	14.2	23	18.1	5	3.9
New age	52	40.9	22	17.3	27	21.3	20	15.7	2	1.6
Country & Western	60	47.2	26	20.5	16	12.6	17	13.4	4	3.1
Hard rock	99	78.0	8	6.3	13	10.2	1	.8	2	1.6

The quantity of music versus the difficulty of music being played was explored. Frequencies and percentages (see Table 17) along with means and standard deviations were calculated. The preference to play fewer pieces of music of greater difficulty yielded a mean of 3.01. The polar opposite question of preference to play more pieces of less difficulty yielded a mean of 2.87. Even though the preference to play more pieces of greater difficulty yielded a higher mean, frequencies were fairly evenly distributed across the different responses.

Table 17

Frequencies and Percentages of Preferences Regarding Quantity versus Difficulty

Survey Item	Not Interested		Somewhat Interested		Neutral		Interested		Very Interested	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Fewer pieces/ Greater difficulty	22	17.3	20	15.7	36	28.3	29	22.8	18	14.2
More pieces/ Less difficult	28	22.0	16	12.6	34	26.8	38	29.9	9	7.1

Life experiences within the past two years

Table 18 shows subjects' response to life changing events within the past two years. The most frequent events indicated were illness of a loved one (37%), illness of self (27.6%), and death of a loved one (19.7%). A majority of subjects (57.5%) indicated they did not encounter any life changing experiences within the past two years. However, 41.7% of the respondents did indicate experiencing some life changes and/or events. Subjects were given the option to list "other" experiences they encountered over the past two years; however, these experiences were not indicated

in the survey. The responses appear below. Although these were single responses, these are items of interest as they demonstrate the variety and diversity of older adults.

1. Chronic Parkinson's Disease
2. Death of friends
3. Disable, I have MS
4. Estrangement from my son and grandchildren, not by my choice, but his decision to cut ties with his and his wife's family members.
5. Husband retired
6. Loss of pet
7. Many changes in my life
8. Mother-in-law is now living with us
9. Murder of step-daughter
10. My youngest son (45) is terminally ill with lung cancer
11. One daughter has life changing events in her life. Another daughter is going through a divorce.
12. Slightly disabled which will probably progress further
13. What doesn't apply?
14. No other
15. None

Table 18

Frequencies and Percentages for Life Experiences within the Past Two Years

Survey Item	Frequency	Percent
Retirement	24	18.9
Change of job	15	11.8
Loss of job	9	7.1
Promotion in job	5	3.9
Change of residence	11	8.7
Marriage/remarriage	1	.8
Divorce	1	.8
Illness of a loved one	47	37.0
Illness of self	35	27.6
Illness of a loved one and you are now the primary caregiver	10	7.9
Death of a loved one	25	19.7
Does not apply	53	41.7

Table 19 shows frequencies and percentages regarding participation in the NHB and the affects of life changing events. A majority of respondents (75.6%) indicated that life changing events did not impact their participation in the NHB. Respondents' decision to participate in the group was not influenced by external life situations and participation would not be affected by any life changing occurrences such as change of job or illness of a loved one. If a significant life change were to occur in the future, 93.7% indicated they would continue to participate in the NHB.

Table 19

Frequencies and Percentages for Participation and the Affects of Life Changing Events

Survey Item	Frequency	Percent
Joined because of life change(s)	26	20.5
Stayed because of life change(s)	3	2.4
Life changes did not have anything to do with participation	96	75.6
Would continue to participate in the NHB even if significant life changes occurred	119	93.7

Importance of lifelong learning

The importance of lifelong learning was investigated. Frequencies and percentages were calculated to reveal trends. A Likert-type scale item was used and over 90% of the respondents indicated lifelong learning has frequently or almost always been important to them (see Table 20).

Table 20

Frequencies and Percentages for Importance of Lifelong Learning

Survey Item	Almost Never		Seldom		Neutral		Frequently		Almost Always	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Has lifelong learning always been important to you?	0	0.0	2	1.6	7	5.5	26	20.5	90	70.9

Participation in musical experiences

Frequencies and percentages (see Table 21) along with means and standard deviations of the respondents' interest in participating in specific musical experiences were calculated. Results reveal that frequency of participation in school music groups ($M=4.01$), parental encouragement ($M=3.93$), and childhood musical participation in the home ($M=3.81$) were activities and/or occurrences frequently experienced in the past by NHB members.

Table 21

Frequencies and Percentages for Participation in Musical Experiences

Survey Item	Never		Rarely		Occasionally		Often		Very Often	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Participated in school music groups	10	7.9	10	7.9	13	10.2	28	22.0	64	50.4
Parents encouraged your musical activities	11	8.7	10	7.9	16	12.6	26	20.5	60	47.2
Participate in music in the home as a child	10	7.9	8	6.3	24	18.9	36	28.3	46	36.2
Participate in church or civic music groups (excluding NHB)	25	19.7	14	11.0	14	11.0	29	22.8	41	32.3
Participate in private instrument or voice lessons	23	18.1	12	9.4	34	26.8	31	24.4	24	18.9
Parents attended concerts and other musical events with you	26	20.5	34	26.8	18	14.2	28	22.0	19	15.0
Parents played a musical instrument or sang	41	32.3	18	14.2	24	18.9	18	14.2	24	18.9

Preferred performing locations

Table 22 summarizes the frequencies and percentages for participation in specific musical experiences. Means and standard deviations were also calculated and show that most subjects prefer to perform in a concert hall ($M=4.10$). The

performance venue of outdoors ($M=3.74$) was also a popular performance location. Subjects were given the option to list “other” preferred performing venues. Locations that were similar (i.e. nursing home, retirement center, etc.) were placed together in a category and frequencies were calculated by the number of like responses. Among the additional locations given, subjects indicated they are very interested in performing in retirement/nursing homes, churches, and schools. Responses and frequencies are reported in Table 23.

Table 22

Frequencies and Percentages for Preferred Performing Locations

Survey Item	Never		Rarely		Occasionally		Often		Very Often	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Concert Hall	1	.8	2	1.6	30	23.6	42	33.1	50	39.4
Outdoors	2	1.6	9	7.1	40	31.5	43	33.9	31	24.4
Perform as Dinner Entertainment	21	16.5	25	19.7	40	31.5	18	14.2	19	15.4

Table 23

Frequencies for Preferred Performing Locations – “Other”

Preferred Performing Locations – “Other”	Frequency
Nursing home, retirement home, assisted living centers, senior homes, retirement centers, retirement home – social rooms, retirement facilities, and homes for the elderly	17
Church	8
Schools, school concerts	6
Seniors homes	2
Private homes, at home for family	2
Parades	2
Coffee house	1
Night club	1
Hospitals	1
Ball room, festivals	1
Public places, market squares in a city	1
Homes of other musicians	1
Civic groups	1
Socials	1
Fairs	1
In the rehearsal room	1

Willingness to participate in rehearsal activities

NHB members’ willingness to participate in specific rehearsal activities was investigated. Frequencies and percentages (see Table 24) along with means and standard deviations were calculated. Results indicate a high degree of willingness to play a short passage in groups of two or more ($M=4.15$, $n=122$), work on music in

groups of two ($M=4.15$, $n=125$), and clap rhythms and/or patterns ($M=3.83$). Overall, subjects are more willing to participate in activities that involve playing their instrument. The activities involving singing were less preferred.

Table 24

Frequencies and Percentages for Willingness to Participate in Rehearsal Activities

Survey Item	Not Willing		Somewhat Willing		Neutral		Willing		Very Willing	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Play a short passage in groups of two or more during class	0	0.0	11	8.7	4	3.1	62	48.8	44	34.6
Work on music in groups of two	2	1.6	6	4.7	6	4.7	68	53.5	43	33.9
Clap rhythms and/or patterns	4	3.1	18	14.2	13	10.2	50	39.4	40	31.5
Sing with others the words to a song or neutral syllables such as "loo"	7	5.5	23	18.1	18	14.2	40	31.5	37	29.1
Move to music	8	6.3	19	15.0	19	15.0	45	35.4	32	25.2
Play a short passage by yourself in class	6	4.7	26	20.5	15	11.8	52	40.9	26	20.5
Sing along words to a song or neutral syllables such as "loo"	11	8.7	25	19.7	17	13.4	37	29.1	35	27.6
Sing in a Group	27	21.3	13	10.2	12	9.4	36	28.3	37	29.1

Interest in learning about music being played

The researcher explored the interest NHB members have in learning specifics about the music they are currently playing. Means and standard deviations along with frequencies and percentages (see Table 25) were calculated. Statistics reveal that most NHB members were interested in learning about all of the mentioned items. Item means revealed an interest in learning about musical styles ($M=4.26$) was most preferred. This was closely followed by an interest in learning about music terminology ($M=4.22$), history ($M=3.93$), music from other cultures ($M=3.91$), and music theory ($M=3.77$). Subjects were given the option to list “other” items they might be interested in learning about the music they are currently playing; however, these skills were not indicated in the survey. The responses appear below. Although these were single responses, these are items of interests as they show the variety and diversity of older adults.

1. Physiology of music and playing
2. Jazz and how to improvise
3. Other instruments – guitar, harmonica, balalaika
4. Dynamics, phrasing, expression
5. How to play music really well – better than my group now plays it
6. Sight-reading a variety of pieces plus perfected concert pieces preferred
7. Learning conducting patterns and styles for a specific piece of music and for general use in band
8. Our conductor gives a very good history of the composers and the pieces we are playing

- 9. Different ensembles, wind, and brass
- 10. Increasing my range
- 11. More music theory
- 12. Learning Italian!

Table 25

Frequencies and Percentages for Interest in Learning about Music Being Played

Survey Item	Not Interested		Somewhat Interested		Neutral		Interested		Very Interested	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Different musical styles	0	0.0	9	7.1	5	3.9	55	43.3	56	44.1
Music terminology	3	2.4	9	7.1	3	2.4	52	40.9	57	44.9
History	4	3.1	19	15.0	5	3.9	51	40.2	46	36.2
Music from other cultures	3	2.4	15	11.8	14	11.0	51	40.2	42	33.1
Theory	8	6.3	15	11.8	15	11.8	43	33.9	41	32.3

Ensemble preference

Table 26 summarizes frequencies and percentages for interest in performing in specific groups or ensembles. Means and standard deviations were also calculated for ensemble preference. Results indicate subjects were most interested in performing in a full band ensemble ($M=4.89$). This ensemble preference is followed with an interest in performing in large ensembles ($M=4.52$) and small ensembles ($M=4.04$). Respondents indicated high levels of interest for all ensemble groups. This holds true for all preferences except the interest in solo performance. Subjects were given the option to list “other” ensembles in which they might be interested in that were not

included in the survey. Table 27 shows the responses and frequencies of “other” preferred ensembles.

Table 26

Frequencies and Percentages for Ensemble Preference

Survey Item	Not Interested		Somewhat Interested		Neutral		Interested		Very Interested	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Performing in full band ensemble	0	0.0	0	0.0	0	0.0	14	11.0	110	86.6
Performing in large ensembles	0	0.0	8	6.3	2	1.6	32	25.2	83	65.4
Performing in small ensembles	6	4.7	13	10.2	9	7.1	38	29.9	58	45.7
Solo Performance	46	36.2	18	14.2	23	18.1	24	18.9	14	11.0

Table 27

Frequencies for Ensemble Preference – “Other”

Ensemble Preference – “Other”	Frequency
Small jazz group – quartet, etc.	2
Swing group	2
Polka band	2
Dance band	1
Dixieland band	1
Readings with a choir	1

Interest in improving musical skills

The researcher investigated the interest NHB members have regarding improvement of specific musical skills. Frequencies and percentages (see Table 28) along with means and standard deviations were calculated. The most preferred skill for improvement was rhythm reading with a mean score of 4.69. This was closely followed by an interest in improving tone ($M=4.47$) and instrumental technique ($M=4.45$). Subjects indicated they were least interested in improving their singing skills ($M=2.44$). Likert-type scale items were used and all skills, except singing, showed high frequencies in the categories of interested and very interested. Interest in improving theoretical knowledge also indicated a moderate number of frequencies in the category of neutral. The skill of singing was heavily weighted in the categories of not interested and neutral. Subjects were given the option to list “other” skills they might be interested in improving; however, these skills were not indicated in the survey. The responses appear below. Although these were single responses, these are items of interests as they demonstrate the variety and diversity of older adults.

1. Blending
2. Dynamics
3. Sounding musical instead of like a beginner
4. Proper breathing
5. Playing by ear
6. Style for a particular type of music
7. Paying attention

8. I gave up being “perfect” at age 40, so I come to enjoy myself not stress out about my skills.
9. Improvisation and ad lib performance
10. Listening skills
11. Speed is sometimes difficult to maintain
12. Whistling

Table 28

Frequencies and Percentages for Interest in Improving Musical Skills

Survey Item	Not Important		Somewhat Important		Neutral		Important		Very Important	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Rhythm – Reading	0	0.0	1	.8	3	2.4	28	22.0	93	73.2
Sight – Reading	0	0.0	3	2.4	5	3.9	46	36.2	71	55.9
Tone	1	.8	1	.8	6	4.7	47	37.0	70	55.1
Instrumental Technique	2	1.6	4	3.1	5	3.9	38	29.9	75	59.1
Theoretical Knowledge	8	6.3	14	11.0	34	26.8	46	36.2	23	18.1
Singing	45	35.4	12	9.4	42	33.1	17	13.4	8	6.3

Research Question 2

The IPIP-NEO has five domains: openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism. The acronym OCEAN will be used when referring to the domains. There are six facet or sub-domain scores within each domain factor.

Descriptive analyses were conducted in order to better understand the data, and to guide in future analyses for this study. Table 29 shows means, standard deviations, and median analyses for participants' scores on the IPIP-NEO variables. Although the average scores center roughly around a mean of 50 (as would be expected in a normal population), statistics reveal large standard deviations which indicate that there was considerable variability in the data on these measures. Therefore, for this study, each facet score was added in with the corresponding domain score to equal one sum score. This score was then divided by seven to obtain the cumulative domain score for each of the five factors. Table 30 shows means, standard deviations, and median analyses for the combined domain and facet scores.

Spearman's rho rank-order correlation coefficients were used to look at relationships between personality scores and other variables. Responses to the Likert-type scale items were not evenly distributed therefore it was deemed appropriate to use Spearman's rho rank-order correlations. Significance was established at $p \leq .01$.

Table 29

Descriptive Statistics for IPIP-NEO Domain and Corresponding Facet Raw Scores

Domain and Facet (<i>n</i> =127)	Mean	Std. Deviation	Median
Openness To Experience	49.69	29.52	52.00
<i>Imagination</i>	43.47	30.35	45.00
<i>Artistic Interests</i>	56.24	27.34	61.00
<i>Emotionality</i>	46.39	30.20	45.00
<i>Adventurousness</i>	49.99	30.36	45.00
<i>Intellect</i>	51.78	29.64	56.00
<i>Liberalism</i>	54.80	32.22	58.00
Conscientiousness	55.48	57.00	28.40
<i>Self-Efficacy</i>	52.72	57.00	26.56
<i>Orderliness</i>	49.92	52.00	31.23
<i>Dutifulness</i>	61.27	71.00	25.73
<i>Achievement-Striving</i>	53.59	60.00	26.63
<i>Self-Discipline</i>	52.46	57.00	29.32
<i>Cautiousness</i>	60.94	68.00	29.27
Extraversion	53.09	27.50	55.00
<i>Friendliness</i>	50.61	28.42	49.00
<i>Gregariousness</i>	51.02	30.43	50.00
<i>Assertiveness</i>	46.61	28.13	54.00
<i>Activity Level</i>	64.62	26.05	69.00
<i>Excitement-Seeking</i>	40.37	26.11	38.00
<i>Cheerfulness</i>	58.30	25.33	60.00
Agreeableness	62.02	24.87	67.00
<i>Trust</i>	61.85	26.86	68.00
<i>Morality</i>	57.54	26.23	74.00
<i>Altruism</i>	56.39	25.21	54.00
<i>Cooperation</i>	62.61	22.40	70.00
<i>Modesty</i>	51.77	26.69	51.00
<i>Sympathy</i>	58.62	28.01	61.00
Neuroticism	40.74	26.21	37.00
<i>Anxiety</i>	42.88	28.37	41.00
<i>Anger</i>	41.32	27.10	36.00
<i>Depression</i>	37.15	26.32	31.00
<i>Self-Conscientiousness</i>	51.72	28.14	58.00
<i>Immoderation</i>	42.72	28.99	38.00
<i>Vulnerability</i>	46.12	29.36	41.00

Table 30

Descriptive Statistics for Combined IPIP-NEO Domain and Facet Scores

Domain and Facet (<i>n</i> =127)	Mean	Std. Deviation	Median
Openness To Experience	50.34	19.73	49.57
Conscientiousness	55.20	19.96	55.86
Extraversion	52.09	19.73	53.71
Agreeableness	58.68	16.73	60.71
Neuroticism	43.24	19.63	41.29

Intercorrelations between OCEAN domains were investigated (see Table 31).

The data indicated numerous moderate correlations between most corresponding domains. The domain of neuroticism yielded significant negative correlations with all corresponding domains.

Table 31

Intercorrelations between OCEAN domains

Domains	O	C	E	A	N
O	1.0	-.00	.44**	.23**	-.30**
C		1.0	.14	.36**	-.40**
E			1.0	.22*	-.46**
A				1.0	-.36**
N					1.0

** Correlation is significant at the .01 level (2-tailed).

* Correlation is significant at the .05 level (2-tailed).

Research Question

Is there a relationship between musical performing preferences, musical interests, importance of lifelong learning, rehearsal activity preferences, and IPIP-NEO personality traits?

Relationship between OCEAN domains and musical listening preferences

The relationship between OCEAN domains and musical listening preferences was investigated (see Table 32). The data indicated moderate correlations between openness to experience and interest in listening to professionals play ($r=.37$), as well as interest in listening to other NHB members play a solo or in a small ensemble ($r=.33$). Results from this analysis reveal a moderate trend between listening preferences and the domain openness to experience. It appears that as musicians' openness to experience increased so did their preferences of listening to others play music. Other significant positive relationships were discovered between listening preferences and the domains of openness to experience, extraversion, and agreeableness. These correlations, although significant, were low and did not indicate any strong trends.

Table 32

Correlations between OCEAN Domains and Musical Listening Preferences

Survey Items	O	C	E	A	N
Do you enjoy going to concerts and listening to other people play Music?	.29**	.20*	.21*	.20*	-.13
How interested are you in listening to other people from the NHB play a solo or in a small ensemble?	.33**	.09	.11	.18*	-.09
How interested are you in listening to professionals play a solo or in a small ensemble?	.37**	.13	.21*	.20*	-.12

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

A bivariate correlation analysis was conducted to examine the relationship between musical listening preferences (style of music) and the OCEAN domains (see Table 33). Using a Spearman's rho rank-order correlation coefficient, the data indicated numerous moderate and low trends between the domain scores and the preferred listening styles of music by NHB members. As the table shows, there are several significant positive relationships revealing a moderate trend between openness to experience and the music listening preferences of opera ($r=.49$), blues ($r=.41$), ethnic/world music ($r=.41$), chamber music ($r=.39$), classical music ($r=.38$), and classical music (1900 to present) ($r=.36$). It appears that as respondents openness to experience scores increased, so did their preferences of listening to specific styles of music. Overall, results indicated that one specific style of music did not seem to have an effect on the listening preference. Subjects scoring higher on the openness to experience scale appear to like listening to music in general.

There was week significant negative correlation ($r=-.23$) between neuroticism and preference of listening to jazz music. It appears that as neuroticism decreased the preference of listening to jazz music increased. Other significant relationships were discovered and reveal low correlations between the variables but did not indicate strong trends. These relationships occur between the domains of openness to experience, conscientiousness, extraversion, and the preferred listening styles of NHB members.

Table 33

Correlations between OCEAN Domains and Musical Listening Preferences (Style of Music)

Survey Items	O	C	E	A	N
Classical	.38**	.12	.07	.05	-.13
Musicals/Broadway	.18*	.01	.17*	.04	-.12
Jazz	.25**	.01	.24**	.03	-.23**
Classical (1900 to present)	.36**	.11	.18*	-.06	-.12
Chamber music	.39**	.04	.05	.15	.01
Blues	.41**	-.11	.30**	.04	-.14
Folk songs/Spirituals	.23**	-.12	.08	.01	-.08
Sacred	.10	-.19*	.00	.08	.04
Opera	.49**	-.10	.21*	.09	-.17
Ethnic/world	.41**	-.22*	.14	-.03	-.10
New Age	.23**	.04	.20*	-.02	-.09

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Relationship between OCEAN domains and musical performing preferences

Spearman's rho correlation statistics were used to investigate the relationship between OCEAN domains and performing preferences. Table 34 reveals significant relationships between extraversion and enjoyment of playing music for other people ($r=.32$) and openness to experience and playing a solo or in a small ensemble ($r=.30$). The significant correlations reveal moderate trends between the variables. It appears that as musicians' openness to experience and extraversion scores increased, so did their preferences to perform for others. Overall, results suggest respondents scoring high in the domains of openness to experience and extraversion did not mind performing for others. Other significant positive relationships were discovered. Although these findings were significant, the correlations between the variables were low and did not indicate strong trends.

Table 34

Correlations between OCEAN Domains and Musical Performing Preferences

Survey Items	O	C	E	A	N
Do you enjoy playing music for other people?	.24**	.06	.32**	.22*	-.23*
Do you enjoy playing a solo or playing in a small ensemble?	.30**	.12	.23**	.04	-.14

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

The relationship between personality traits and musical performing preference of quantity versus difficulty was investigated. Correlation statistics were calculated between OCEAN domains and the preference of playing fewer pieces of music that

are of greater difficulty or playing more pieces of music that are less challenging. No significant relationships were discovered between the variables.

The relationship between the OCEAN domains and the style of music NHB members like to play was investigated. Significant positive correlations were discovered between the domain of openness to experience and playing music from operas ($r=.37$), ethnic/world music ($r=.37$), and chamber music ($r=.33$). The significant correlations reveal moderate trends between the variables. It appears that as musicians' openness to experience increased, so did their preference to playing specific styles of music. Overall, results indicated that one specific style of music did not make a difference in the playing preferences of respondents. Subjects scoring higher on the openness to experience scale seem to like listening to music in general.

A significant negative correlation of $r=-.24$ between neuroticism and the preference of playing ethnic/world music as well as openness to experience and holiday music was discovered. It appears that as neuroticism decreased the preference to play holiday and ethnic/world music increased. Other significant relationships were revealed between the domains of openness to experience, conscientiousness, neuroticism, and the style of music NHB members prefer to play (see Table 35). Although statistically significant, the low correlations between the variables did not indicate strong trends.

Table 35

Correlations between OCEAN Domains and Musical Performing Preferences
(Style of Music)

Survey Items	O	C	E	A	N
Holiday music	-.28**	.16	.03	.15	-.05
Classical music	.23*	.15	.06	.10	-.14
Popular music from your young adult years	.02	-.02	.18*	.12	-.06
Classical music (1900 to present)	.22*	.12	.07	.02	-.16
Jazz	.21*	-.02	.12	.05	-.17
Patriotic music	-.20	.01	.07	-.01	-.07
Chamber music	.33**	.06	.10	.16	-.05
Blues	.26**	-.11	.02	.04	.10
Folk Songs/Spirituals	.21*	-.23*	.09	-.02	-.04
Ethnic/World	.37**	-.06	.23**	.01	-.24**
Opera	.37**	-.13	.09	.11	-.03
New Age music	.19*	.05	.22*	.05	-.15*
Hard Rock music	.19*	.01	.21*	-.13	-.08

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Relationship between OCEAN domains and life experiences within the past two years

The relationship between OCEAN domains and life experiences within the past two years was investigated. Spearman's rho correlations revealed significant relationships between the domains of conscientiousness, extraversion, and

neuroticism and the life experiences of retirement, illness of self, and death of a loved one (see Table 36). A weak significant positive correlation of $r=.21$ was discovered between neuroticism and retirement. Neuroticism also revealed a weak but significant negative relationship with illness of self ($r=-.19$). A second significant negative relationship was discovered between conscientiousness and death of a loved one ($r=-.19$). Although the findings are statistically significant, the low correlations observed between the variables did not indicate strong trends.

Table 36

Correlations between OCEAN Domains and Life Experiences within the Past Two Years

Survey Items	O	C	E	A	N
Retirement	-.02	-.09	-.08	-.08	.21*
Illness of self	.16	.08	.05	-.01	-.19*
Death of a loved one	-.03	-.19*	-.13	.01	.10

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Relationship between OCEAN domains, musical experiences, and lifelong learning

A summary of correlations between OCEAN domains, musical experiences, and lifelong learning was investigated. The domain of openness to experience revealed a significant relationship with the importance of lifelong learning ($r=.42$). The significant correlation indicated a moderate trend that as a person's openness to experience score increased so did the importance of lifelong learning.

The domain of extraversion revealed low but significant positive relationships with all of the listed musical experiences and importance of lifelong learning. It

appears that as NHB members' extraversion increased, so did their musical experiences and interest in lifelong learning. Significant negative correlations were discovered between respondents' neuroticism scores and interest in lifelong learning and previous musical experiences. Although the significance was low and did not indicate strong trends, it indicated that as neuroticism decreased interest in lifelong learning and previous musical experiences increased. Other low but significant correlations were discovered between the domains of openness to experience, conscientiousness, and musical experiences and importance of lifelong learning (see Table 37).

Table 37

Correlations between OCEAN Domains, Musical Experiences, and Lifelong Learning

Survey Items	O	C	E	A	N
Importance of lifelong learning.	.42**	.14	.26**	.09	-.28**
Parents encouraged your musical activities	.12	.04	.23**	.16	-.30**
Participated in music in the home as a child	.13	.18*	.22**	.08	-.25**
Participated in private instrument or voice lessons	.23**	.07	.24**	-.03	-.10
Parents attended concerts and other musical events with you	.09	.00	.24**	.09	-.11

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Relationship between OCEAN domains and preferred performing locations

Correlation statistics were calculated to discover if there was a relationship between OCEAN domains and preferred performing locations. Results yielded low but significant positive relationships between performing locations (concert hall and dinner entertainment) and the domains of openness to experience, extraversion, and agreeableness (see Table 38). Although statistically significant the low correlations observed between the variables did not indicate strong trends. Overall, results indicated that NHB members did not have specific preferences for performing locations.

Table 38

Correlations between OCEAN Domains and Preferred Performing Locations

Survey Items	O	C	E	A	N
Concert hall	.23**	.17	.21*	.17	-.10
Outdoors	.08	.04	.08	.02	.02
Dinner Entertainment	.11	.06	.03	.20*	.12

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Relationship between OCEAN domains and willingness to participate in rehearsal activities

The relationship between OCEAN domains and willingness to participate in specific rehearsal activities were explored (see Table 39). Spearman's rho correlations revealed only low to moderate correlations between these variables.

Significant positive correlations indicated a moderate trend between openness to experience and willingness to play a short passage by oneself in class ($r=.37$), move to music ($r=.35$), and work on music in groups of two ($r=.30$). Other significant relationships revealing moderate trends were discovered between extraversion and willingness to move to music ($r=.37$) and agreeableness and willing to sing in a group ($r=.32$) and sing with others ($r=.32$). Overall, as NHB members' openness to experience, extraversion, and agreeableness scores increased, so did their willingness to participate in specific rehearsal activities. Other significant relationships were discovered; however, the low correlations did not indicate strong trends between the OCEAN domains and willingness to participate in rehearsal activities.

Table 39

Correlations between OCEAN Domains and Willingness to Participate in Rehearsal Activities

Survey Item	O	C	E	A	N
Play short passage in groups of two or more during class	.23**	.12	.19*	.13	-.17
Work on music in groups of two	.30**	.11	.30**	.11	-.23*
Clap rhythms/patterns	.21*	.05	.19*	.22*	-.13
Sing with others words to a song or neutral syllables such as “loo”	.19*	.19*	.17	.32**	-.21*
Move to music	.35**	-.03	.37**	.19*	-.23*
Play short passage by yourself in class	.37**	.20*	.28**	.25**	-.25**
Sing along words to a song or neutral syllables such as “loo”	.22**	.17	.19*	.27**	-.19*
Sing in a group	.20*	.23**	.23**	.32**	-.21*

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Relationship between OCEAN domains and interest in learning about music being played

The relationship between the OCEAN domains and interest in learning about music being played or performed was explored (see Table 40). Openness to experience yielded a significant positive relationship with interest in learning music from other cultures ($r=.41$) and different musical styles ($r=.34$). The small but significant correlation indicated moderate trends between the variables. It appears that

as musicians' interest in learning about the music being played increased so did their openness to experience. Results indicated that one specific item did not make a difference in the interest in learning specific skills. Overall, subjects scoring higher on the openness to experience scale wanted to learn about the music they were playing. Other significant relationships were discovered between extraversion, agreeableness, and willingness to participate in rehearsal activities. Although statistically significant, the low correlations observed between the variables did not indicate strong trends.

Table 40

Correlations between OCEAN Domains and Interest in Learning about Music Being Played

Survey Items	O	C	E	A	N
Different musical styles	.34**	.11	.21*	.21*	-.16
Music terminology	.22*	.12	.15	.07	-.08
History	.28**	.04	.22*	.14	-.14
Music from other cultures	.41**	-.05	.22*	.09	-.17
Theory	.18*	.16	.08	-.07	-.15

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Relationship between OCEAN domains and ensemble preference

A bivariate correlation analysis was conducted to examine the relationship between the OCEAN domains and ensemble preference was investigated (see Table 41). Using Spearman's rho rank-order correlation coefficients, the data indicated a significant positive relationship between the personality domain of openness to

experience and respondents' preference to perform in a small ensemble ($r=.35$). It appears that as their interest in participating in various types of ensembles increased so did their openness to experience. Overall, subjects scoring higher on the openness to experience scale like performing solos as well as in ensembles both large and small. Other significant relationships were discovered between the domains extraversion, agreeableness, and ensemble preference. Although statistically significant, the low correlations observed between the variables did not indicate strong trends.

Table 41

Correlations between OCEAN Domains and Ensemble Preference

Survey Items	O	C	E	A	N
Performing in a full band ensemble	.07	.15	.04	.15	-.05
Performing in large ensembles	.26**	.17	.14	.25**	-.09
Performing in small ensembles	.35**	.11	.18*	.15	-.08
Solo performance	.23*	.08	.12	.07	-.06

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Relationship between OCEAN domains and interest in improving musical skills

Correlation statistics were used to calculate the relationship between the OCEAN domains and interest in improving musical skills (see Table 42). Results yielded significant positive relationships between interest in improving singing and the domains agreeableness ($r=.29$) and openness to experience ($r=.27$). Other

significant relationships were revealed; however, the correlations observed were low and did not indicate strong trends.

Table 42

Correlations between OCEAN Domains and Interest in Improving Musical Skills

Survey Items	O	C	E	A	N
Rhythm reading	.04	.10	.13	.15	-.11
Sight-reading	.18	.08	.19*	.14	-.05
Tone	.16	.10	.05	.15	-.18*
Instrumental technique	.09	.06	-.04	-.02	-.09
Theoretical knowledge	.11	.07	-.01	-.15	.00
Singing	.27**	.14	.13	.29**	-.11

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

In order to control for openness to experience and extraversion influencing the correlation results, partial correlations were also calculated. The domains openness to experience and extraversion were eliminated. Results did not indicate any trends that were different from the correlations using all five domains.

Research Question 3

Research Question

Are there prevalent health issues and needed accommodations within the older adult population participating in a musical activity?

Health issues and needed accommodations

Subjects were asked if they have specific health issues and/or needed special accommodations. Respondents were given the option to check all items that apply to

their personal needs. Table 43 summarizes the frequencies and percentages for health issues and special accommodations desired by respondents. The most indicated health issue was arthritis/rheumatism which was selected by 26% of respondents. This was followed by loss of some motor skills (17.3%) and difficulty hearing a normal volume of speech (15%). Regarding accommodations, the most frequently indicated need was large print music (17.3%), followed by the need for frequent water breaks (14.2%).

The subject of driving is an important issue to be addressed when dealing with older adults. Results revealed that some adults (15%) feel uncomfortable driving long distances and few (1.6%) were unable to drive any length of distance. Nighttime driving was revealed to make some NHB members (16.5%) feel uncomfortable driving after dark. However, only 2.4% of subjects indicated they were unable to drive at night.

Table 43

Frequencies and Percentages for Health Issues and Desired Accommodations

Survey Item	Frequency	Percent
Require large print music	22	17.3
Have vision problems unable to be corrected by prescriptive lenses	6	4.7
Have problems with peripheral vision	3	2.4
Use a cane or walker	3	2.4
Have difficulty hearing a normal volume of speech	19	15.0
Require handicap parking	8	6.3
Feel uncomfortable driving at nighttime	21	16.5
Unable to drive at nighttime	2	1.6
Feel uncomfortable driving long distances	19	15.0
Unable to drive long distances	3	2.4
Do not have means of transportation	9	7.1
Experience difficulty sitting for more than an hour	13	10.2
Need frequent water breaks	18	14.2
Have arthritis/rheumatism	33	26.0
Experience some loss of motor skills	22	17.3
Have emphysema or severe asthma	5	3.9

*NOTE: Respondents were instructed to check all that apply for this item.
Therefore totals may exceed 100%

Table 44 summarizes the frequencies and percentages for preferred rehearsal time. Subjects were asked to select all that apply regarding rehearsal time preference. The majority of respondents (45.7%) indicated a desire to rehearse in the Morning. This was followed by 40.2% preferring to rehearse during the evening. Next, 25.2% would like to rehearse in the afternoon and 20.5% have no preference of rehearsal time.

Table 44

Frequencies and Percentages for Time of Day Prefer to Rehearse

Survey Item	Frequency	Percent
Morning	58	45.7
Afternoon	32	25.2
Evening	51	40.2
No Preference	26	20.5

*NOTE: Respondents were instructed to check all that apply for this item.
Therefore totals may exceed 100%

Summary

Due to the low number of respondents, this study is not representative of the entire population of NHB members in the United States and Canada. Descriptive analyses were computed for subject data. Frequencies and percentages along with a cross-tabulation and means and standard deviations were computed for all demographics (gender, age, income, employment status, educational background, marital status, and instrument selection), musical interests, musical preferences, musical and life experiences, interest in lifelong learning, health issues and needed accommodations. Correlation statistics were used to discover relationships between performing preferences, musical interests, importance of lifelong learning, rehearsal activity preferences, and personality traits.

Summary of demographics, level of participation, musical interests, expectations, and preferences

The population for this research study was comprised of 127 respondents. The majority of the participants were female, married, and reside in the Midwestern

United States. Many of the subjects indicated they were retired or still working full-time. The subjects ranged in age from 30 to 85 with an average age of 61.05. The most frequently indicated age was 68.

The sample for this study was relatively well-educated with a rather high percentage of respondents indicating having earned bachelors degrees. This category was closely followed by numerous subjects who indicated masters and doctoral degrees. Subjects were asked to supply an estimate of their gross annual household income. The average annual indicated income was estimated at \$75,238.66 with the most frequently indicated income being \$100,000.

Life experiences were investigated as well as the impact of experiences on participation in a musical activity. The most frequently indicated life experiences encountered within the past two years included the illness of a loved one, illness of self, and death of a loved one. The majority of respondents indicated life experiences did not have anything to do with their decision to participate in the NHB. If they were to encounter any life changes, the bulk of respondents indicated they would continue to participate.

The interest in lifelong learning was investigated. A majority of subjects indicated they had frequently or almost always been interested in lifelong learning. The frequency of participation in musical events was also explored. Many respondents indicated that as children they participated in school music groups, received strong parental encouragement, and participated in music making at home.

The preferred style of music NHB members wish to play along with interest in improving skills, knowledge of music being played, and willingness to participate in

rehearsal activities was explored. The most preferred styles of music NHB members enjoy playing included music from musicals/Broadway, big band tunes, marches, holiday music, and popular music from their young adult years. The majority of subjects were interested in improving skills such as rhythm reading, tone, and instrumental technique. Respondents also indicated an interest in learning about music styles, music terminology, history, music from other cultures, and music theory. Members were willing to participate in the following rehearsal activities: playing short passages of music in groups of two or more, working on music in groups of two, and clapping rhythms and/or patterns. Overall, activities or interests involving singing were least preferred.

Summary of relationships between musical performing preferences, musical interests, importance of lifelong learning, rehearsal activity preferences, and OCEAN domains.

The five domains (OCEAN) of the IPIP-NEO were used to investigate relationships between musical performing preferences, musical interests, importance of lifelong learning, and rehearsal activity preferences. The domains openness to experience, extraversion, and agreeableness indicated a moderate significance between variables and revealed modest trends. Other significant correlations were discovered; however, many of the correlations were too low to conclusively reveal any important trends.

The investigation of the relationship between OCEAN domains and listening preferences revealed a moderate trend between openness to experience and the respondents' interest in listening to professionals and other people from the NHB

perform a solo or in a small ensemble. It appears that as NHB members' preference to listen to others play music increases so does their openness to experience.

A significant relationship was discovered between preferred styles of music respondents like to listen to and openness to experience. This study revealed that as NHB members' preferences to listen to specific styles of music increased so did their openness to experience. Overall, this study indicated that one specific style of music did not make a difference in listening preferences. Subjects scoring higher on the openness to experience scale liked listening to music in general.

The relationship between OCEAN domains and lifelong learning was explored. A significant positive relationship was discovered between openness to experience and importance of lifelong learning. The results revealed a moderate trend between the variables. As NHB members openness to experience scores went up so did the scores for importance of lifelong learning.

Regarding the type of music NHB members prefer to play, moderate trends were discovered between openness to experience and numerous style of music. Results indicated that one specific style of music did not make a difference in the playing preferences of respondents scoring higher on the domain openness to experience. Overall, NHB members scoring higher on the openness to experience scale liked listening to music in general.

Significant positive relationships revealed a moderate trend between the domain extraversion and the enjoyment of playing music for others. Another trend was discovered between the domain openness to experience and the enjoyment of playing a solo or in a small ensemble. As NHB members preferences to perform for

others increased so did their openness to experience and extraversion. Overall, respondents scoring high in the above mentioned domains did not mind performing for others.

The relationship of OCEAN domains and learning about the music being played during a rehearsal was investigated. Significant positive relationships were discovered between openness to experience and interest in learning about music from other cultures as well as learning about different musical styles. The results revealed moderate trends between the variables. Results indicated that one specific item did not make a difference in the interest level of learning specific skills. Overall, NHB members scoring higher on the openness to experience scale wanted to learn about the music they are currently working on in rehearsal.

A moderate trend was discovered between willingness to participate in specific rehearsal activities and the OCEAN domains of openness to experience, extraversion, and agreeableness. As NHB members' willingness to participate in specific rehearsal activities increased, so did their openness to experience, extraversion, and agreeableness scores.

Summary of prevalent health issues and needed accommodations

The primary health issues revealed include arthritis/rheumatism and some loss of motor skills. The most needed accommodations requested by respondents were large print music and frequent water breaks. Regarding rehearsal time, the majority of subjects indicated morning as their preferred time to rehearse. This was closely followed by the preference of rehearsing in the evening.

CHAPTER V

SUMMARY, CONCLUSIONS AND IMPLICATIONS, AND RECOMMENDATIONS

Summary

The purpose of this study was to discover the needs and musical interests of New Horizons Band members. A secondary purpose was to determine the relationship between musical interests, preferences and personality traits. The purpose was achieved by the use of an anonymous *Music Interest Questionnaire* (MIQ) designed by the researcher and the *International Personality Item Pool representation of the NEO-PI-R™* (IPIP-NEO) designed by Johnson (2001).

Literature reveals that our older population is living longer and will increase within the years to come (Rybash, Roodin, & Hoyer, 1995). Older adults are more active and choose to participate in life long learning activities before and after retirement. With the growing number of older adults seeking activities to fill their time, numerous programs, such as the New Horizons Band, have become available for the senior adults.

The literature also revealed a lack of research in the specific area of instrumental music programs for the elderly. Some research involving older adults has been conducted with choral ensembles and piano pedagogy students (Darrough, 1990; Larson, 1983; McCullough, 1981; Pike, 2001) but not specifically with instrumental groups such as the NHB. The researcher embarked upon this study to make an initial step to fill the gap and provide instrumental directors with a profile of NHB participants. Another goal was to examine the relationships between selected

variables and personality traits, and provide an assessment tool or ideas that can help directors with curriculum design and performance areas and venues. Information obtained from this research project may help ensure that future generations of older adults participating in an instrumental activity can have a meaningful musical experience they can carry with them for the rest of their lives.

A pilot study was conducted by the researcher and administered to New Horizons Band members in a medium-sized community in the southwestern United States. Following the pilot study, data from 19 subjects were analyzed and descriptive statistics such as means and standard deviations and frequencies and percentages were calculated. Other statistical procedures used for the pilot study consisted of cross-tabulations and Pearson chi-square. Reliability was tested using Chronbach's alpha. Based on the results of the statistical analyses, specific modifications were made to the survey instrument.

Participants in this study were New Horizons Band members in the United States and Canada. All New Horizons Band directors (except the NHB that participated in the pilot study) were invited to assist in this research project by announcing the study to their band members. The online survey was open for eight months and yielded 127 respondents.

The response rate for this study yielded a small sample ($N=127$) of a fairly large population (1,490 possible participants). As a result, it would be inappropriate to generalize these results to the larger New Horizons Band population in the United States and Canada. Upon conclusion of this project, it could be assumed that subjects participating in an online research study are more open to experience or more willing

to try new and different things; therefore creating a sample or selection bias. A larger sample size could allow for a more equal distribution of subjects regarding personality traits and could give greater confidence in the findings.

This study was descriptive in nature. The specific research objectives were to: a) discover the demographics, level of participation, musical interests, expectations, and preferences of NHB members, b) explore the relationships between the OCEAN domains and musical performing preferences, musical interests, importance of lifelong learning, and rehearsal activity preferences, and c) discover prevalent health issues and needed accommodations within the older adult population participating in this survey.

Data were recorded and analyzed using the Statistical Package for the Social Sciences (SPSS). Descriptive statistics such as means and standard deviations and frequencies and percentages were used to summarize group trends and compare response trends across different subgroups. Cross-tabulations were used to organize frequency data and look at relationships between variables. A Pearson chi-square was used to see if there were significant differences between observed and expected distributions. Spearman's rho rank-order correlation coefficients were used to discover and examine relationships between personality scores and other variables.

Correlation statistics revealed numerous trends between two domains (openness to experience and extraversion) and musicians' interests and preferences. Few significant correlations were found between the domain scores of conscientiousness, agreeableness, and neuroticism and the older adults' musical interests and preferences. However, selection bias is a possible cause for statistical

tests to be inaccurate; therefore inflating the Type I statistical error (alpha). Numerous correlation statistics were conducted for this study. Performing multiple statistical tests on the same data presents another possible risk of Type I error and the chance of statistically significant findings being a random error.

Conclusions and Implications

Conclusions presented in this section were based on the data gathered and analyzed from the researcher designed questionnaire (MIQ) and the IPIP-NEO personality inventory. The results of this study support previous findings and strengthen the fact that older adults are active, enthusiastic, value music, and have a desire to participate in a lifelong learning experience (Darrough, 1990; Pike, 2001). The opportunity exists for teachers of older adults to provide quality music programs for the active senior adult seeking a musical activity. The results of this study have important implications for planning and implementing a survey instrument to assess the needs of the elderly personnel in a musical ensemble.

The subjects in this study ranged in age from 30 to 85 with an average age of 61.05. The most frequently indicated age was 68. Even though the age of 68 yielded the highest frequency, findings from this research refute the results from a 1986 study by Patchen who attempted to determine the factors for current musical activity levels. Results indicated that age was a significant predictor of musical activity and that individuals in the age category of 65-72 were more active than adults from other age categories. Retirement might be a factor influencing the discrepancy in results. Previous research has indicated that older adults have more disposable income and are retiring at an earlier age (Wise, 1997). As a result, older adults may seek to

participate in some type of leisure and/or educational activity (Darrough, 1990; Graetz, 1982; Hoffman, 1977a; Kellmann, 1984; Norman, 1978; Pike, 2001; Timmerman, 1977). The disparate findings from this study could be a result of individuals retiring at an earlier age and/or having more disposable income in which to participate in leisure activities.

The demographics of gender and educational status were investigated. Findings from this research indicate that the majority of participants were female. The results of the current study parallel the findings of a 1990 study by Darrough investigating older adults in retirement community choruses. Darrough discovered that women were more prone to participate in activities involving the arts than their male counterparts (1990).

Regarding educational background, a majority of subjects were relatively well-educated with a rather high percentage of respondents indicating having earned bachelors degrees. This category was closely followed by numerous subjects who indicated having earned masters and doctoral degrees. The educational results of this study did not support the findings of a study conducted by Darrough (1990). Darrough discovered that fewer women held degrees beyond high school/GED or technical or trade school degrees/certificates. Reasons for his findings may be that women age 65 and older came from a time when females were not encouraged to pursue a college education. Time is a factor to be considered for these differences. The differences between economic status and age might result from a 15 year lapse between studies.

The inflation of educational levels might also be a result of selection bias in this sample. Subjects that agreed to participate in this web based survey might have been less intimidated by the instrument format. Another reason for high educational levels of the sample might be a result of respondents with less education feeling intimidated by the nature of the study. Since the online survey was directly related to a doctoral research project, some older adults might not have understood the importance of the study or could have experienced a feeling of apprehension or intimidation regarding participation in the project.

The current study used a researcher designed questionnaire to obtain information about the needs and preferences of older adults in the NHB. Kellmann (1984) suggests that educators of senior adults gather as much information as possible about the participants in their organization. Since older adults choose to participate in learning activities, such as the NHB, it is important that a director understand the needs of the ensemble population. Experts agree that the environment should be conducive to learning and accommodate the needs of the older adult. The elderly are more likely to participate in activities and programs that meet their basic needs both intellectually and physically (Bright, 1972; Curran, 1982; Kellmann, 1984). With the implementation of a survey instrument, a director can discover the needs and interests of the older adult student. This information can help educators design curriculum and activities for the older adult learner.

The older adult student is eager to learn and has a strong desire to take an active role in planning his/her own musical activities. Knowles (1980) emphasizes that most adults are self-directed, have a strong desire to learn, and expect to take

responsibility for decisions about their learning. In order for a program to be successful and meet the needs of the adult learner, it is imperative that teachers of older adults create active learning environments that encourage and allow participants to take ownership of their learning.

There are numerous venues in which older adults can embrace their learning experience. Tatum (1985) recommended incorporating mini-courses into the older adult curriculum. She suggested the courses be divided into small time frames such as four to eight weeks in length. It was also recommended that the courses include a variety of topics such as: basic music fundamental classes; instrumental classes teaching folk instruments and/or guitar; and the utilization of peer teaching. The present study revealed older adults have a strong desire to learn about musical styles, music terminology, history, music from other cultures, and music theory. As suggested by Tatum, small mini-courses could be incorporated into the music curriculum for the older adult learner.

In this study, subjects indicated a strong interest in learning about different musical styles and music terminology. The respondents' preferred areas for improvement were tone quality and instrumental technique. One way to meet the educational needs of the older adult would be to offer specific classes, such as a music theory or music history. This would not only meet the need to learn specifics about the music being played, but it would also help participants take ownership of their learning as mentioned earlier. Another way to meet educational needs and encourage ownership would be to ensure that these elements are integrated into the ensemble instruction on a regular basis. In fact, the National Standards for Music

Education recommended that such an instructional approach be incorporated into all levels of ensemble rehearsals.

Researchers strongly encouraged community involvement (Davidson, 1982; Hoffman, 1977a; Leonhard, 1980; Tatum, 1995) as a means to reach the older adult population. Suggestions included interaction and participation with local, state, and county councils of aging and incorporating programs with local universities and/or colleges, school districts, retirement homes, and senior centers. These avenues are a means to support the community, reach a wider population of older adults, and encourage intergenerational activities which could help strengthen relationships between young adults and seniors. These venues along with an interest to perform in churches were supported and revealed in the current study.

This research study along with information from related literature reveals numerous venues in which a director can encourage older adults to take an active part in their educational experience. A few examples might include, but are not limited to the following: a) discovering individuals within the group who have music teaching backgrounds, b) recognizing and utilizing administrators of senior centers or older adult learning facilities, c) scheduling performances off site from the regular performing location, d) creating and offering selected music courses (i.e. music history, theory, or appreciation), e) incorporating intergenerational activities and performances, f) offering student and faculty recital opportunities, g) inviting and utilizing guest conductors and performers, h) incorporating activities with local schools, i) offering opportunities and instruction for instruments not included in the band, and j) offer a variety of performing venues.

Rehearsal activities are an important factor for the educator of adult students. Understanding the adult students' willingness to participate in specific rehearsal activities is an important consideration when preparing for a rehearsal. The MIQ revealed that subjects were willing to play a short passage during class in groups of two or more as well as work on music in groups of two. Other activities included moving to music, clapping rhythms/patterns, and playing passages with a group of other NHB members. Willingness to participate in singing activities was lower on the preference level. Experts suggest older adults do not like to risk making a mistake (Atchley, 1980; Reese & Rodeheaver, 1985). This may be an influencing factor in participating in specific activities such as singing, ensembles, or performing a solo. If a director wishes to incorporate specific activity, such as singing alone, he/she might want to gradually introduce and incorporate singing activities to large or small groups instead of individuals.

Results indicated NHB members preferred to listen a variety of styles of music, such as, music from their young adult years, classical music, music from musicals/Broadway, and jazz tunes. Regarding playing preferences, the most preferred styles of music included: music from musicals and/or Broadway, big band tunes, marches, holiday music, and music from their young adult years. Directors are encouraged not only to introduce standard band repertoire, but also to incorporate music that the students wish to play. These findings support Gibbons (1985) research which disputed the myths about older adults preferring only music from the late nineteenth and early twentieth centuries. Another study by Gibbons (1977) which

parallels the findings of this study revealed that older adults prefer music of their young adult years as opposed to popular music of later years.

Results from a study by Lathom, Peterson, and Havlicek (1982) also support the findings of this research. They discovered that older adults preferred to listen to patriotic and big band styles as opposed to symphony, opera, and folk music. However, they did find that musical preferences were significantly different when related to older adults' educational levels and previous musical experiences. They found that symphonic and operatic music was most preferred by older adults with a college education. Descriptive statistics and significant positive correlations reveal these findings may parallel the current study.

This study revealed that the overall mean scores for the listening preferences of music from their young adult years, classical music, music from musicals and/or Broadway productions, jazz, and classical music (1900 to present) were higher than other preferred listening styles. Significant positive correlations were also discovered between the domain of openness to experience and listening to certain styles of music such as, music from operas, blues, ethnic/world music, chamber music, and classical music (both prior to and post 1900). The statistical findings were significant and revealed a moderate trend between the variables. The greater part of respondents in this study were highly educated; therefore, the majority of responses to the IPIP-NEO were from an educated sample of NHB members.

The use of a personality profile instrument such as the IPIP-NEO can reveal an abundance of information regarding program design and activities. By understanding individuals' personality traits, a director can gain clearer insight into

the individual needs of each member as well as corporate needs of the ensemble. Information gained can reveal the way individuals interact with not only each other, but also the activities and ensembles in which they might be willing to participate during rehearsals and performances. Results from this research revealed that the personality traits of openness to experience, and extraversion are key factors in discovering a person's willingness to participate in activities as well as their musical listening and playing preferences. Overall this results from this study indicated that the more extraverted and open to experience individuals are the more they enjoy playing, listening, and participating in musical activities in general.

Research reveals that many older adults choose to participate in activities, have predetermined educational goals, and would choose accuracy over speed (Cross, 1981; Fry, 1992; Hultsch, et. Al, 2000; Knowles, 1980; MacDonald, Hultsch, & Dixon, 2003). Understanding and being sensitive to these issues is vital to a programs success, as well as the success of each individual in the ensemble. Overall, the aging process in general might have a negative influence on older adults. For example, the senior adult student may enter a musical ensemble with a fear of embarrassment due to age related decline or the fear of failure in general.

Understanding the aging process along with health issues and needed accommodations is imperative for directors of musical activities, such as the NHB. The primary health issues indicated by subjects in this study were arthritis/rheumatism, some loss of motor skills, and difficulty hearing a normal volume of speech. Many older individuals develop arthritis which could, over time, cause sporadic interference and great loss of mobility when dealing with daily

physical movements (Atchley, 1980). A reduction of strength is another issue to be considered with students dealing with arthritis. Depending upon the type of arthritis, some physicians encourage older adults to exercise the afflicted joint(s) on a regular basis (Lesonoff-Caravaglia, 2000). Understanding the physical needs and health issues of the older adult population is essential when planning rehearsals and activities. Playing a musical instrument could be a means for exercising and working the areas afflicted with arthritis. With the knowledge and understanding of age related deterioration of the skeletal and muscular systems, a director can prepare activities that are beneficial not only for the ensemble, but for individuals as well.

Many older adults experience some hearing loss in their lifetime. The first noticeable sign of age related hearing impairment is the loss of high pitches. Some seniors experience difficulty hearing certain frequencies and distinguishing between neighboring frequencies (Atchley, 1980; Knowles, 1977). With this information in mind, the gender of the NHB director is an important factor when dealing with students with a hearing impairment. Since most women, and some men, have high pitched voices, it may be more difficult to understand and distinguish their speech than that of people with lower voices (Botwinick, 1984). Speaking slower and distinctly can help with clarification of speech. If needed, a device to amplify the voice may be needed during rehearsals. By understanding the needs of the older adult students in a specific group, a director can be proactive and prepare rehearsals which meet the needs of all members in the group.

The needed accommodations revealed in this study included the need for large print music and frequent water breaks. Age related vision decline is another issue to

be cognizant of when working with older adults. Over time, the size of a person's pupil diminishes resulting in a smaller amount of light entering the eye. This process limits the amount of light that reaches the retina, therefore generating a greater need for illumination. If an adult has vision problems, it may be beneficial to raise the illumination and/or use larger print materials (Atchley, 1980; Botwinick, 1984; Cross, 1981).

Results from this study indicated that some individuals needed large print music, had vision problems unable to be corrected by prescriptive lenses, and had difficulty with their peripheral vision. All of the previous mentioned health issues and needed accommodations can be connected to age related vision decline. This information is beneficial to directors in that they need to be aware of rehearsal and performance facilities and lighting. By polling the members of the group, a director could also prepare for adults needing large print music. By having advance notice of individuals needing special lighting, and large print music, a director can adequately prepare for rehearsals and performances. Since older adults in general may have a fear of embarrassment, advanced preparation will open the door for a more conducive and friendly learning environment.

It is common for many senior adults to experience the feeling of dry mouth. The digestive system slows with age and the body produces less saliva resulting in a feeling of dry mouth. Many older adults are on prescribed medications that may cause dry mouth as well (Lesonoff-Caravaglia, 2000). A final factor to consider when working with older adult students is the fact that wind musicians breathe through their mouth while playing their instrument. This process could also enhance the feeling of

dry mouth. With these mentioned factors, it is important for a director to schedule frequent water breaks and/or rehearse in a facility that allows water in the rehearsal room.

Information obtained from this study alone, indicates that a director should be cognizant of the length of rehearsals, use of appropriate movement activities for adults with limited mobility and/or arthritis, lighting in the rehearsal area, size of music print, and volume of speech. The director may opt to use an amplification system to address the group or place members with hearing difficulty closer to the director.

The time of day the ensemble meets is crucial for some older adults. Individuals indicating they had problems driving at night were few in number. This is most likely due to the target population already being actively involved in the NHB. This group had already made the necessary accommodations to deal with their transportation needs. The question pertaining to preferred time of day for rehearsals would most likely be more applicable to a group of adults entering a musical activity instead of a group of established personnel such as the population for this study.

These are just a few of the observations that may be brought to a director's attention by the use of a survey instrument inquiring about health issues and needed accommodations.

Recommendations for further research

Much work remains to be done in the area of music education and the older adult learner. It is important that instructors of senior adults and persons involved with program design for the elderly musician become more aware of the needs and

interests of their personnel. Based upon the experiences of this study, the following recommendations are made for music educators of older adults participating in a musical ensemble such as the NHB.

1. The New Horizons organization encompasses a large group of people. Respondents in this research are a relatively small sample of a fairly large population. Due to the limited number of people who responded to this questionnaire, this research should be used to aid future research. Additional studies are needed with a larger sample size to be able to generalize outcomes.
2. Studies indicate the necessity of profiling and understanding the needs of personnel in an older adult ensemble. Further research is needed regarding a survey instrument for instrumental, choral, and string ensembles which will assess needs and interests of personnel. The survey instrument used in this study can be used along with the online IPIP-NEO to assess the needs and personality traits of ensemble members. However, this survey was aimed at instrumental (band) ensembles only. This survey could be modified to fit the needs of each ensemble. For example it could be modification to fit a choral or orchestral ensemble.
3. Correlations statistics revealed numerous significant relationships and trends between selected variables and the domains openness to experience and extraversion. Further research investigating the relationships between the domains openness to experience and extraversion and their respective facet scores could be useful in developing musical programs for older adults.

4. Research into the therapeutic aspects of playing an instrument. What, if any, teaching techniques are needed with dealing with persons who have a potentially debilitating disease or health issue.
5. Research that explores vision problems among the elderly should be undertaken so that appropriate large-print editions of music can be printed. This can lead to an option for large-print music with the large ensembles, small groups, such as duets and trios, as well as solo repertoire. This can also transfer over and help younger musicians with vision problems as well.
6. Researchers might explore whether certain people with specific personality traits are predisposed to participation in choral, instrumental, and string ensembles for older adults.
7. Researchers might explore the music literature needs of the older adult musician. This could involve current literature as well as the need for new arrangements and literature.
8. Researchers might conduct a longitudinal intergenerational study with the interaction of older instrumental musicians and younger musicians through teaching and performance venues.
9. More extensive research might be done on the social and educational needs of the adult learner in a musical ensemble. These findings may help andragogues with curriculum and program design for the older student.
10. More extensive research on the cultural aspects of participants in a musical activity, such as the NHB. Investigation of social activities, life enhancing, and/or life changing events that happened as a result of participation in a

musical activity. Areas of investigation might include but are not limited to the following: formation of friendships, romantic relationships, marriage, or political alliances that evolved as a result of participation in the NHB.

The findings in this study may enlighten educators to the needs and preferences of the older adult participating in a musical activity, such as the NHB.

The senior adult brings a wealth of experiences and ideas into the classroom. With the use of a survey instrument, like the MIQ, andragogues can prepare activities and curriculum to better serve the older population.

The social and emotional benefits of participating in a leisure activity are abundant. As indicated in this research, the older adult yearns to interact with peers and the general public. Subjects revealed a desire to perform in a variety of venues, such as nursing homes, schools, or churches. Not only will this type of activity provide performance opportunities and socialization to the NHB member, but it will also share the gift of music with the community.

Many older adult students have encountered a plethora of life changing events. These events encompass family issues, job priorities and changes, illnesses, and even death. Participation in music affords the adult learner a hands-on diversion, which can serve as a creative outlet in which one may momentarily escape from life's stressful moments. Overall, a person is never too old to learn or begin a new activity. Whether a NHB member excels or merely reaches a mediocre musical proficiency, the important thing to remember is that music is a gift that can be experienced and shared with everyone.

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APPENDICES

APPENDIX A

INFORMED CONSENT FORM

INFORMATION FORM

FOR A RESEARCH PROJECT CONDUCTED THROUGH THE UNIVERSITY OF OKLAHOMA, NORMAN CAMPUS

Dear New Horizons Band Member,

You are invited to participate in a study of musical interests and personality traits being conducted by Martha Griffith. The purpose of this Information Form is to inform you fully about the nature of this study before you consent to participate.

The purpose of this study is to determine what adult learners want to gain from participation in musical organizations such as the New Horizons Band. A secondary purpose is to determine if there are any relationships between personality traits and musical interests.

If you agree to participate, you will be asked to complete an anonymous online questionnaire. The inventory will take about 20 minutes to complete and will focus on your personal preferences, your general background information, your musical training, and your musical preferences. Upon completion of the questionnaire, you will receive the results of your Personal Style Inventory.

No risks beyond those present in normal everyday life are anticipated in this study.

Participation in this study will provide an insight into your personality traits. The information collected will also provide better insight into the types of music your ensemble is interested in playing, and rehearsal ideas and techniques. This can be used to provide better music and programming for you in the future.

Your participation in this study is strictly voluntary. Refusal to participate will involve no penalty or loss of benefits to which you are otherwise entitled, and you may discontinue participation at any time without penalty or loss of benefits to which you are otherwise entitled. If you wish to withdraw from this study before data collection is completed your questionnaire will be returned to you or destroyed.

Please be aware that completing the online questionnaire implies your consent to participate in this research study.

If you have any questions concerning this research study, please contact Martha Griffith at (405) 535-8064 or Dr. Nancy Barry (faculty sponsor) at (405) 325-4146. If you have any questions about your rights as a subject/participant in this research, you can contact the Office of Research Administration at (405) 325-4757.

Please print and keep this Information Form for your records.

APPENDIX B

CREATE YOUR OWN PERSONAL IDENTIFICATION NUMBER

CREATE YOUR OWN PERSONAL IDENTIFICATION NUMBER

Due to the sensitive nature of the information being collected through the questionnaire, it is important to create your own personal identification number (PIN) to ensure anonymity. This assures that no one will be able to associate you with the information collected. There will be no record of your name or participation in this study, therefore assuring anonymity.

How to construct your personal Identification Number:

1. Create your personal identification number.

Use the following codes to help create your personal identification number.

- a. Participating New Horizons Band: (Turn page over for locations and codes)
- b. Gender: Male – M Female – F
- c. Eye Color: Brown – 1 Blue – 2 Green – 3 Hazel – 4 Other – 5
- d. The third letter of the month in which you were born.
- e. The numeric day of the month on which you were born (e.g., if you were born on October 9, 1948, you would write 9 in the blank).
- f. The first letter of your last name.
- g. The third letter of your last name (if your last name has only two letters, record the last letter of your last name).

Example: Jane Doe
Hot Springs, Arkansas New Horizons Band member
Green eyes
Birthday August 12, 1946

Identification number would be:

1	F	3	G	12	D	E
---	---	---	---	----	---	---

2. Record your personal identification number.

Once you have created your personal identification number, there are TWO locations that you will need to record this number.

1. **Personal Identification Number card** – located in the front of your packet. Tear this card off and keep for your records. Since all information collected is anonymous, this is the ONLY way you will be able to receive the results of your Personal Style Inventory.
2. **Front of Music Interest Questionnaire** – This ensures that you receive the correct results of the Personal Style Inventory and eliminates the possibility of you receiving someone else's results.

Turn page over for NHB locations and codes.

NHB Locations and Codes

Code	Location (State & City)
1	AR – Hot Springs
2	AR – Mountain Home
3	AZ – Apache Junction
4	AZ – Carefree
5	AZ – Mesa
6	CA – Carlsbad
7	CA – Modesto
8	CA – Santa Barbara
9	CA – Santa Rosa
10	CO – Colorado Springs
11	CO – Loveland
12	CT – Hartford
13	CT – Stons
14	DE – Wilmington
15	FL – Amelia Island
16	FL – Melbourne
17	FL – Sannibel Island
18	GA – Ellijay
19	GA - Roswell
20	GA – Sandy Springs
21	GA – Savannah
22	IA – Cedar Falls
23	IA – Cedar Rapids
24	IA – Davenport
25	IA – Iowa City
26	IL – Alton
27	IL – Bourdonnais
28	IL – Chicago
29	IL – Ft. Sheridan
30	IL – Lisle
31	IL – Winnetka
32	IN – Elkhart
33	IN – Indianapolis
34	KS – Lawrence
35	MD – Bethesda
36	MI – East Lansing
37	MI – Grand Rapids
38	MI – Port Huron
39	MI – Waterford
40	MN – Minneapolis

Code	Location (State & City)
41	MO – Maryland Heights
42	MO – St. Louis
43	NC – Durham/Raleigh
44	NC – Greenville
45	NC – Winston-Salem
46	ND – Grand Forks
47	NH – Portsmouth
48	NM – Las Cruces
49	NY – Henrietta
50	NY – Oswego
51	NY – Rochester
52	NY – Syracuse
53	OH – Berea
54	OH – Cincinnati
55	OH – Cuyahoga Falls
56	OH – Dayton
57	OK – Norman
58	OR – Bend
59	OR – Corvallis
60	OR – Eugene
61	OR – McMinnville
62	OR – Medford
63	PA – Scranton
64	PA – Williamsport
65	SD – Rapid City
66	TX – Austin
67	TX – Corsicana
68	TX – Denton
69	TX – North Dallas
70	TX – Wichita Falls
71	UT – Provo
72	VA – Arlington
73	VA – Charlottesville
74	WA – Olympia
75	WA – Tacoma
76	WA - Vancouver
77	WI – Madison
78	WI – Milwaukee
79	WI – Waukesha

Sample of card that will be given to each participant

PERSONAL IDENTIFICATION NUMBER						
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

APPENDIX C

MUSICAL INTEREST QUESTIONNAIRE

(USED IN PILOT STUDY)

QUESTIONNAIRE

ID#

1. What is the highest level of education that you have completed?
 Did not graduate High School
 High School or GED
 Some college or Associates Degree
 College degree completed
 Advanced degree, please indicate: Masters _____ Doctorate _____

2. Are you: Retired Working Full Time Working Part Time

3. What is your annual income? (specify only if you wish)
 \$0.00 – \$4,999
 \$5,000 – \$9,999
 \$10,000 – \$19,999
 \$20,000 – \$34,999
 \$35,000 – \$64,999
 \$65,000 – \$84,999
 \$85,000 and above
 None of your business!

4. What is your age? (specify only if you wish)
 Under 50
 50 – 59
 60 – 69
 70 – 79
 80 and above
 None of your business!

5. Are you: Male Female

6. Are you: Married Divorced Widowed
Single Separated

7. Have you experienced a significant life change in the past 2 years? (check all that apply)

- | | |
|--|---|
| <input type="checkbox"/> Retirement | <input type="checkbox"/> Loss of job |
| <input type="checkbox"/> New job | <input type="checkbox"/> Promotion in job |
| <input type="checkbox"/> Change of residence | <input type="checkbox"/> Divorce |
| <input type="checkbox"/> Marriage | <input type="checkbox"/> Death of a loved one |
| <input type="checkbox"/> Illness of a loved one | <input type="checkbox"/> Illness of self |
| <input type="checkbox"/> Illness of a loved one and you are now
the primary caregiver | |
| <input type="checkbox"/> Other (specify, if you wish) _____ | |
| <input type="checkbox"/> None, I have not had any significant life changes in the past 2 years | |
| <input type="checkbox"/> I prefer not to answer this question | |

8. Was your participation in the New Horizons Band affected by the life change(s) listed above?

- Yes, I *joined* because of the life change(s)
- Yes, I *stayed* because of the life change(s)
- Life changes *did not* have anything to do with my decision to participate

9. Speculate if you think any of the following life changing events would affect your participation in the New Horizons Band? (check all that apply, if you wish)

- | | |
|--|---|
| <input type="checkbox"/> Retirement | <input type="checkbox"/> Loss of job |
| <input type="checkbox"/> New job | <input type="checkbox"/> Promotion in job |
| <input type="checkbox"/> Change of residence | <input type="checkbox"/> Divorce |
| <input type="checkbox"/> Marriage | <input type="checkbox"/> Death of a loved one |
| <input type="checkbox"/> Illness of a loved one | <input type="checkbox"/> Illness of self |
| <input type="checkbox"/> Illness of a loved one and you will now
be the primary caregiver | |
| <input type="checkbox"/> Other (specify, if you wish) _____ | |
| <input type="checkbox"/> Nothing would affect my participation | |
| <input type="checkbox"/> I prefer not to answer this question | |

10. What instrument do you play in the New Horizons Band? _____

11. Are you learning to play an instrument for the first time? Yes _____ No _____

12. Are you currently taking private lessons? Yes ____ No ____

13. How long have you played this instrument?

- Less than 6 months
- 6 months – 11 months
- 1 year – 2 years
- 3 years – 4 years
- 5 years – 9 years
- 10 years – 29 years
- 30 years and above

14. How was this instrument chosen?

- I played this instrument in school
- They needed someone to play this instrument in the New Horizons Band
- The instrument was easily accessible (i.e. someone I know let me borrow or buy the instrument)
- I always wanted to play this instrument!
- Other (specify) _____

15. If you played an instrument before joining the New Horizons Band, how long had it been since you actively played your instrument? (Actively = at least once a week)

- Less than 6 months
- 6 months – 11 months
- 1 year – 2 years
- 3 years – 4 years
- 5 years – 9 years
- 10 years – 29 years
- 30 years and above
- Does not apply; this is my first time to play an instrument

16. Why did you choose to participate in the New Horizons Band? (check all that apply)

- Learn how to play an instrument
- Learn how to play a different instrument
- Further my knowledge on an instrument I already play
- Religious goals (learn to play an instrument or start playing an instrument I already had for the purpose of playing in religious services, etc.)
- Social – I wanted to meet new people
- Escape – I wanted to get away from a routine and/or personal problems
- Cultural knowledge – I wanted to study music and learn how it relates to different cultures as well as my own
- Educational – I wanted to participate in a music program that was led by a trained professional(s)
- Other (specify) _____

17. How long have you participated in the New Horizons Band?

- | | |
|--|--|
| <input type="checkbox"/> First time to participate | <input type="checkbox"/> 2 ½ years |
| <input type="checkbox"/> 1 year | <input type="checkbox"/> 3 years – 5 years |
| <input type="checkbox"/> 1 ½ years | <input type="checkbox"/> 6 years – 8 years |
| <input type="checkbox"/> 2 years | <input type="checkbox"/> 9 years or more |

18. What type(s) music do you listen to when you are at home? (check all that apply)

- | | | |
|--|--|---|
| <input type="checkbox"/> Marches | <input type="checkbox"/> Pop music from 1940s | <input type="checkbox"/> Patriotic |
| <input type="checkbox"/> Jazz | <input type="checkbox"/> Pop music from 1950s | <input type="checkbox"/> Holiday |
| <input type="checkbox"/> Musicals/Broadway | <input type="checkbox"/> Pop music from 1960s | <input type="checkbox"/> Classical |
| <input type="checkbox"/> Religious/Anthems | <input type="checkbox"/> Pop music from 1970s | <input type="checkbox"/> Easy Listening |
| <input type="checkbox"/> Country & Western | <input type="checkbox"/> Pop music from 1980s | <input type="checkbox"/> Big Band |
| <input type="checkbox"/> Folk Songs/Spirituals | <input type="checkbox"/> Pop music from 1990s to present | |
| <input type="checkbox"/> Other (specify) _____ | | |

19. What type(s) of music do you like to play on your instrument? (check all that apply)

- | | | |
|--|--|---|
| <input type="checkbox"/> Marches | <input type="checkbox"/> Pop music from 1940s | <input type="checkbox"/> Patriotic |
| <input type="checkbox"/> Jazz | <input type="checkbox"/> Pop music from 1950s | <input type="checkbox"/> Holiday |
| <input type="checkbox"/> Musicals/Broadway | <input type="checkbox"/> Pop music from 1960s | <input type="checkbox"/> Classical |
| <input type="checkbox"/> Religious/Anthems | <input type="checkbox"/> Pop music from 1970s | <input type="checkbox"/> Easy Listening |
| <input type="checkbox"/> Country & Western | <input type="checkbox"/> Pop music from 1980s | <input type="checkbox"/> Big Band |
| <input type="checkbox"/> Folk Songs/Spirituals | <input type="checkbox"/> Pop music from 1990s to present | |
| <input type="checkbox"/> Other (specify) _____ | | |

QUESTIONS 20 – 25

Circle the number that is closest to your feelings/thoughts. (1 being most important or closest to your feelings/thoughts and 5 being least important)

20. Has lifelong learning always been important to you?

- | | | |
|--|--------------------------------|---|
| Yes, it has always
been important | Sometimes
important | Did not think
of it before now |
| 1 ----- | 2 ----- | 3 ----- 4----- 5 |

21. Do you enjoy listening to other people play music?

- | | | |
|------------|------------------|------------------|
| Yes | Sometimes | No |
| 1 ----- | 2 ----- | 3 ----- 4----- 5 |

22. Would you like to hear other people from the New Horizons Band play a solo or in a small ensemble?

- | | | |
|------------|--------------|------------------|
| Yes | Maybe | No |
| 1 ----- | 2 ----- | 3 ----- 4----- 5 |

23. Would you like to hear college students play a solo or in a small ensemble?

- | | | |
|------------|--------------|------------------|
| Yes | Maybe | No |
| 1 ----- | 2 ----- | 3 ----- 4----- 5 |

24. Do you enjoy playing music for other people?

Yes **Sometimes** **No**
 1 ----- 2 ----- 3 ----- 4 ----- 5

25. Would you be interested in playing a solo or playing in a small ensemble?

Yes **Maybe** **No**
 1 ----- 2 ----- 3 ----- 4 ----- 5

QUESTIONS 26 – 32

Place an X in the box that best describes your reaction to each question.

26. When in a rehearsal, how interested would you be to learn about the music you are playing?

	Very	A little	Neutral	Not very	Not at all
History.....					
Music terminology					
Music of other cultures ..					
Different musical styles .					
Theory.....					

If there is something else not listed above that you are interested about learning about the music you are playing, please specify:

27. Please indicate the extent to which you participated in the following music experiences:

	<i>Very Often</i>	<i>Often</i>	<i>Occasionally</i>	<i>Rarely</i>	<i>Never</i>
Music in the home as a child -----					
Music in the home as an adult -----					
School music groups (Vocal or Instrumental) ---					
Church or civic music groups – excluding NHB (Vocal or Instrumental) --					
Private instrument or voice lessons -----					
Parents played a musical instrument or sang -----					
Parents attended concerts with you -----					
Parents encouraged your musical activities -----					

28. How important is it to improve the following skills?

	<i>Very</i>	<i>A little</i>	<i>Neutral</i>	<i>Not very</i>	<i>Not at all</i>
Counting Rhythms -----					
Sight-reading -----					
Theoretical knowledge ---					
Instrumental technique ---					
Singing -----					
Tone -----					

29. How willing would you be to participate in the following?

	Very	A little	Neutral	Not very	Not at all
Singing in a group -----					
Singing <i>alone</i> words to a song or neutral syllables such as "loo" -----					
Singing <i>with others</i> the words to a song or neutral syllables such as "loo"-----					
Clapping rhythms and/or patterns-----					
Moving to music -----					
Playing a short passage by myself in class-----					
Playing a short passage with 5 or fewer people during class -----					
Working on my music in groups of TWO -----					

30. How much do you enjoy performing in the following groups?

Full band ensemble _____

Solo performance - _____

Woodwind, brass, or percussion ensembles _____

Small ensembles (duet, trio, quartet, etc.) _____

If there is another group you might enjoy performing in that is not listed above,

please specify: _____

31. How much do you enjoy performing in the following performance settings?

	<i>Very</i>	<i>A little</i>	<i>Neutral</i>	<i>Not very</i>	<i>Not at all</i>
Concert hall -----					
Outdoor -----					
Dinner entertainment -----					
Solo & ensemble performances -----					

If there is another place you enjoy performing that is not listed above, please specify.

32. In order to provide the best musical experience for you, we would like to know what accommodations you feel are necessary to ensure full participation and facilitation of your educational opportunities.

Please rank each accommodation in the order of importance to you.

	<i>Extremely Important</i>	<i>Quite Important</i>	<i>Fairly Important</i>	<i>Somewhat Important</i>	<i>Not Important At All</i>
More frequent breaks					
Large print music-----					
Wheelchair ramp -----					
Handicapped parking -----					
Rehearsals scheduled to end before dark --					
Microphone to enhance director's comments-----					

Please list any other modification(s) needed:

Thank you for your help and participation in this survey!

APPENDIX D

MUSICAL INTEREST QUESTIONNAIRE – REVISED

MUSIC INTEREST QUESTIONNAIRE

1. Gender (Please check the correct response)

Male Female

2. What is your age? _____

3. In what state do you live? _____

4. Marital Status (Please check the correct response)

Never Married Widowed
 Married Divorced
 Separated Divorced and remarried
 Widowed and remarried Other

5. What is your highest level of education? (Please check the correct response)

8th grade or less
 Grades 9 – 11
 High School or GED
 Technical or trade school beyond high school
 Some college (no degree earned)
 Community college degree or certificate
 College or university degree (Bachelor's)
 Some graduate school (no degree earned)
 Graduate or professional degree (Master's)
 Graduate education beyond Master's degree
 Graduate or professional degree (Doctoral)

6. What is your employment status? (Please check the correct response)

Working Full Time
 Working Part Time
 Retired
 Retired, but working full time
 Retired, but working part time
 Unemployed – not retired

7. Please estimate your household annual income? _____

Please continue on the next page.

8. Have you experienced a significant life change in the past 2 years? (Please check **ALL** that apply) _____ Retirement
- _____ Changed jobs
- _____ Loss of job
- _____ Promotion in job
- _____ Change of residence
- _____ Illness of self
- _____ Marriage/remarriage
- _____ Divorce
- _____ Death of a loved one
- _____ Illness of a loved one
- _____ Illness of a loved one and
you are now the primary caregiver _____ Other (Please
specify) _____
- _____ Does Not Apply
9. Was your participation in the New Horizons Band affected by the life change(s) previously listed (in question number 7)?
- _____ Yes, I *joined* because of the life change(s)
- _____ Yes, I *stayed* because of the life change(s)
- _____ Life changes *did not* have anything to do with my decision to participate
10. If you had a significant life change (such as mentioned in question 7) would you continue to participate in NHB?
- _____ Yes _____ No
11. What instrument do you play in the New Horizons Band? _____
12. Why did you choose to play this instrument in New Horizons Band? (Please check **ALL** that apply)
- _____ I played this instrument in school
- _____ They needed someone to play this instrument in the New Horizons Band
- _____ Someone in my family played this instrument when they were in school
- _____ I always wanted to play this instrument
- _____ Other (Please specify) _____

Please continue on the next page.

13. How long have you played this instrument? _____
14. Are you learning to play a NEW or DIFFERENT instrument (Is this the first time you have played this instrument)? ____ Yes ____ No
15. If you played an instrument before joining the New Horizons Band, how long had it been since you actively played your instrument? (Actively = at least once a week)
 _____ Year(s)
 ____ Does not apply; this is my first time to play an instrument
16. Why did you choose to participate in the New Horizons Band? (Please check **ALL** that apply)
- ____ Learn how to play a NEW or DIFFERENT instrument
- ____ Further my knowledge on an instrument I already play
- ____ Religious goals (learn to play an instrument or start playing an instrument I already had for the purpose of playing in religious services, etc.)
- ____ Social – I wanted to meet new people
- ____ Escape – I wanted to get away from routine and/or personal problems
- ____ Cultural knowledge – I wanted to study music and learn how it relates to different cultures as well as our own
- ____ Educational – I wanted to participate in a music program that was led by a trained professional(s)
- ____ Recreational
- ____ Therapeutic
- ____ Other (Please specify) _____

Please continue on the next page.

QUESTIONS 17 – 31

Circle the number that is closest to your feelings/thoughts.

17. Has lifelong learning always been important to you?

**Yes, it has always
been important**

**Sometimes
important**

**Did not think
of it before now**

1 ----- 2 ----- 3 ----- 4 ----- 5

18. Do you enjoy going to concerts and listening to other people play music?

Yes

Sometimes

No

1 ----- 2 ----- 3 ----- 4 ----- 5

19. How interested are you in listening to other people from the New Horizons Band play a solo or in a small ensemble?

Yes

Maybe

No

1 ----- 2 ----- 3 ----- 4 ----- 5

20. Would you like to hear college students or professionals play a solo or in a small ensemble?

Yes

Maybe

No

1 ----- 2 ----- 3 ----- 4 ----- 5

21. Do you enjoy playing music for other people?

Yes

Sometimes

No

1 ----- 2 ----- 3 ----- 4 ----- 5

22. Do you enjoy playing a solo or playing in a small ensemble?

Yes

Maybe

No

1 ----- 2 ----- 3 ----- 4 ----- 5

23. Would you prefer to play fewer pieces of music that are more difficult or more pieces which are less difficult?

**Play fewer pieces
of greater difficulty**

**Play more pieces
of easier difficulty**

1 ----- 2 ----- 3 ----- 4 ----- 5

Please continue on the next page.

24. Please indicate the extent to which you participated in the following music experiences:

1 – Very Often 2 – Often 3 – Occasionally 4 – Rarely 5 – Never

Music in the home as a child	1 ----- 2----- 3----- 4----- 5
School music groups	1 ----- 2----- 3----- 4----- 5
Church or civic music groups – Excluding NHB (Vocal or Instrumental)	1 ----- 2----- 3----- 4----- 5
Private instrument or voice lessons	1 ----- 2----- 3----- 4----- 5
Parents played a musical instrument or sang	1 ----- 2----- 3----- 4----- 5
Parents attended concerts with you	1 ----- 2----- 3----- 4----- 5
Parents encouraged your musical activities	1 ----- 2----- 3----- 4----- 5

25. During a rehearsal, how willing would you be to participate in the following?

1 – Very much 2 – A little 3 – Neutral 4 – Not very much 5 – Not at all

Sing in a group	1 ----- 2----- 3----- 4----- 5
Sing alone words to a song or neutral syllables such as “loo”	1 ----- 2----- 3----- 4----- 5
Sing with others the words to a song or neutral syllables such as “loo”	1 ----- 2----- 3----- 4----- 5
Clapping rhythms and/or patterns	1 ----- 2----- 3----- 4----- 5
Moving to music	1 ----- 2----- 3----- 4----- 5
Playing a short passage by myself in class	1 ----- 2----- 3----- 4----- 5
Playing a short passage in groups of <u>TWO</u> or <u>MORE</u> during class	1 ----- 2----- 3----- 4----- 5
Working on my music in groups of TWO	1 ----- 2----- 3----- 4----- 5

Please continue on the next page.

26. When in a rehearsal, how interested would you be to learn about the music you are playing?

1 – Very much 2 – A little 3 – Neutral 4 – Not very much 5 – Not at all

History	1 ----- 2----- 3----- 4----- 5
Music terminology	1 ----- 2----- 3----- 4----- 5
Music from other cultures	1 ----- 2----- 3----- 4----- 5
Different musical styles	1 ----- 2----- 3----- 4----- 5
Theory	1 ----- 2----- 3----- 4----- 5

If there is something else not listed above that you are interested about learning about the music you are playing (please specify):

27. How well do you enjoy performing in the following settings?

1 – Very much 2 – A little 3 – Neutral 4 – Not very much 5 – Not at all

Concert hall	1 ----- 2----- 3----- 4----- 5
Outdoors	1 ----- 2----- 3----- 4----- 5
Dinner entertainment	1 ----- 2----- 3----- 4----- 5
Solo & Ensemble performances	1 ----- 2----- 3----- 4----- 5

If there is another place you enjoy performing that is not listed above (please specify):

Please continue on the next page.

30. Please indicate your level of preference for **LISTENING** to the following types of music

	1 – Very much	2 – A little	3 – Neutral	4 – Not very much	5 – Not at all	
Big Band Tunes	1	-----	2-----	3-----	4-----	5
Blues	1	-----	2-----	3-----	4-----	5
Chamber Music	1	-----	2-----	3-----	4-----	5
Classical (Music earlier than 1900, ex. Mozart)	1	-----	2-----	3-----	4-----	5
Classical (Music from 20 th Century to present)	1	-----	2-----	3-----	4-----	5
Country & Western	1	-----	2-----	3-----	4-----	5
Ethnic/World	1	-----	2-----	3-----	4-----	5
Folk Songs/Spirituals	1	-----	2-----	3-----	4-----	5
Hard Rock	1	-----	2-----	3-----	4-----	5
Holiday	1	-----	2-----	3-----	4-----	5
Jazz	1	-----	2-----	3-----	4-----	5
Marches	1	-----	2-----	3-----	4-----	5
Musicals/Broadway	1	-----	2-----	3-----	4-----	5
New Age	1	-----	2-----	3-----	4-----	5
Opera	1	-----	2-----	3-----	4-----	5
Patriotic	1	-----	2-----	3-----	4-----	5
Popular music from your young adult years	1	-----	2-----	3-----	4-----	5
Popular Rock	1	-----	2-----	3-----	4-----	5
Religious Anthems	1	-----	2-----	3-----	4-----	5
Sacred	1	-----	2-----	3-----	4-----	5

If you like to play a certain kind of music was not listed above please indicate below (Please specify):

Please continue on the next page.

31. How well do you like to **PLAY** the following types of music?

	1 – Very much	2 – A little	3 – Neutral	4 – Not very much	5 – Not at all	
Big Band Tunes	1	-----	2-----	3-----	4-----	5
Blues	1	-----	2-----	3-----	4-----	5
Chamber Music	1	-----	2-----	3-----	4-----	5
Classical (Music earlier than 1900, ex. Mozart)	1	-----	2-----	3-----	4-----	5
Classical (Music from 20 th Century to present)	1	-----	2-----	3-----	4-----	5
Country & Western	1	-----	2-----	3-----	4-----	5
Ethnic/World	1	-----	2-----	3-----	4-----	5
Folk Songs/Spirituals	1	-----	2-----	3-----	4-----	5
Hard Rock	1	-----	2-----	3-----	4-----	5
Holiday	1	-----	2-----	3-----	4-----	5
Jazz	1	-----	2-----	3-----	4-----	5
Marches	1	-----	2-----	3-----	4-----	5
Musicals/Broadway	1	-----	2-----	3-----	4-----	5
New Age	1	-----	2-----	3-----	4-----	5
Opera	1	-----	2-----	3-----	4-----	5
Patriotic	1	-----	2-----	3-----	4-----	5
Popular music from your young adult years	1	-----	2-----	3-----	4-----	5
Popular Rock	1	-----	2-----	3-----	4-----	5
Religious Anthems	1	-----	2-----	3-----	4-----	5
Sacred	1	-----	2-----	3-----	4-----	5

If your favorite kind of music to play was not listed above please indicate below (Please specify):

Please continue on the next page.

32. In order to provide the best musical experience for you, we would like to know if there are any special needs that you would like to share with us.

Personal Needs (Please check all that apply)

- Require large print music
- Vision problems not able to be corrected by prescriptive lenses
- Problems with peripheral vision
- Require wheelchair ramp
- Use a cane or walker
- Have difficulty hearing a normal volume of speech
- Require handicap parking
- Feel uncomfortable driving at nighttime
- Unable to drive at nighttime
- Feel uncomfortable driving long distances
- Unable to drive long distances
- Do not have means of transportation
- Experience difficulty sitting for more than an hour
- Need frequent water breaks - experience a “dry” feeling in your mouth after playing your instrument
- Have Arthritis/Rheumatism
- Experience some loss of motor skills
- Have emphysema or severe asthma, which could interfere with breathing

33. When do you prefer to have rehearsals (Check all that apply)

- Morning
- Afternoon
- Evening
- No preference

Please continue with the next section – IPIP-NEO.

APPENDIX E

PERSONAL STYLE INVENTORY

(USED IN PILOT STUDY)

Personal Style Inventory

The following items are arranged in pairs (a and b), and each member of the pair represents a preference you may or may not hold. Circle your preference for each item by giving it a score of 0 to 5 (0 meaning you really feel negative about it or strongly about the other member of the pair, 5 meaning you strongly prefer it or do not prefer the other member of the pair).

IMPORTANT: Your scores for parts “a” and “b” of each item must add up to 5. (0 and 5, 1 and 4, 2 and 3, etc.).

1a.	0 – 1 – 2 – 3 – 4 – 5	I prefer making decisions after finding out what others think.
1b.	0 – 1 – 2 – 3 – 4 – 5	I prefer making decisions without consulting others.
2a.	0 – 1 – 2 – 3 – 4 – 5	I prefer being called imaginative or intuitive.
2b.	0 – 1 – 2 – 3 – 4 – 5	I prefer being called factual and accurate.
3a.	0 – 1 – 2 – 3 – 4 – 5	I prefer making decisions about people in organizations based on available data and systematic analysis of situations.
3b.	0 – 1 – 2 – 3 – 4 – 5	I prefer making decisions about people in organizations based on empathy, feelings, and understanding of their needs and values.
4a.	0 – 1 – 2 – 3 – 4 – 5	I prefer allowing commitments to occur if others want to make them.
4b.	0 – 1 – 2 – 3 – 4 – 5	I prefer pushing for definite commitments to ensure that they are made.
5a.	0 – 1 – 2 – 3 – 4 – 5	I prefer quiet, thoughtful time alone.
5b.	0 – 1 – 2 – 3 – 4 – 5	I prefer active, energetic time with people.
6a.	0 – 1 – 2 – 3 – 4 – 5	I prefer using methods I know well that are effective to get the job done.
6b.	0 – 1 – 2 – 3 – 4 – 5	I prefer trying to think of new methods of doing tasks when confronted with them.

Please continue on the next page.

7a.	0 – 1 – 2 – 3 – 4 – 5	I prefer drawing conclusions based on unemotional logic and careful step-by-step analysis.
7b.	0 – 1 – 2 – 3 – 4 – 5	I prefer drawing conclusions based on what I feel about life and people from past experiences.
8a.	0 – 1 – 2 – 3 – 4 – 5	I prefer avoiding making deadlines.
8b.	0 – 1 – 2 – 3 – 4 – 5	I prefer setting a schedule and sticking to it.
9a.	0 – 1 – 2 – 3 – 4 – 5	I prefer talking awhile and then thinking to myself about the subject.
9b.	0 – 1 – 2 – 3 – 4 – 5	I prefer talking freely for an extended period and thinking to myself at a later time.
10a.	0 – 1 – 2 – 3 – 4 – 5	I prefer thinking about possibilities.
10b.	0 – 1 – 2 – 3 – 4 – 5	I prefer dealing with actualities.
11a.	0 – 1 – 2 – 3 – 4 – 5	I prefer being thought of as a thinking person.
11b.	0 – 1 – 2 – 3 – 4 – 5	I prefer being thought of as a feeling person.
12a.	0 – 1 – 2 – 3 – 4 – 5	I prefer considering every possible angle for a long time before and after making a decision.
12b.	0 – 1 – 2 – 3 – 4 – 5	I prefer getting the information I need, considering it for a while, and then making fairly quick, firm decisions.
13a.	0 – 1 – 2 – 3 – 4 – 5	I prefer inner thoughts and feelings others cannot see.
13b.	0 – 1 – 2 – 3 – 4 – 5	I prefer activities and occurrences in which others join.
14a.	0 – 1 – 2 – 3 – 4 – 5	I prefer the abstract or theoretical.
14b.	0 – 1 – 2 – 3 – 4 – 5	I prefer the concrete or real.
15a.	0 – 1 – 2 – 3 – 4 – 5	I prefer helping others explore their feelings.
15b.	0 – 1 – 2 – 3 – 4 – 5	I prefer helping others make logical decisions.
16a.	0 – 1 – 2 – 3 – 4 – 5	I prefer change and keeping options open.
16b.	0 – 1 – 2 – 3 – 4 – 5	I prefer predictability and knowing in advance.

Please continue on the next page.

17a. 0 – 1 – 2 – 3 – 4 – 5	I prefer communicating little of my inner thinking and feelings.
17b. 0 – 1 – 2 – 3 – 4 – 5	I prefer communicating freely my inner thinking and feelings.
18a. 0 – 1 – 2 – 3 – 4 – 5	I prefer possible views of the whole.
18b. 0 – 1 – 2 – 3 – 4 – 5	I prefer the factual details available.
19a. 0 – 1 – 2 – 3 – 4 – 5	I prefer using common sense and conviction to make decisions.
19b. 0 – 1 – 2 – 3 – 4 – 5	I prefer using data, analysis, and reason to make decisions.
20a. 0 – 1 – 2 – 3 – 4 – 5	I prefer planning ahead based on projections.
20b. 0 – 1 – 2 – 3 – 4 – 5	I prefer planning as necessities arise, just before carrying out the plans.
21a. 0 – 1 – 2 – 3 – 4 – 5	I prefer meeting new people.
21b. 0 – 1 – 2 – 3 – 4 – 5	I prefer being alone or with one person I know well.
22a. 0 – 1 – 2 – 3 – 4 – 5	I prefer ideas.
22b. 0 – 1 – 2 – 3 – 4 – 5	I prefer facts.
23a. 0 – 1 – 2 – 3 – 4 – 5	I prefer convictions.
23b. 0 – 1 – 2 – 3 – 4 – 5	I prefer verifiable conclusions.
24a. 0 – 1 – 2 – 3 – 4 – 5	I prefer keeping appointments and notes about commitments in notebooks or in appointment books as much as possible.
24b. 0 – 1 – 2 – 3 – 4 – 5	I prefer using appointment books and notebooks as minimally as possible (although I may use them).
25a. 0 – 1 – 2 – 3 – 4 – 5	I prefer discussing a new, unconsidered issue at length in a group.
25b. 0 – 1 – 2 – 3 – 4 – 5	I prefer puzzling out issues in my mind, then sharing the results with another person.

Please continue on the next page.

26a. 0 – 1 – 2 – 3 – 4 – 5	I prefer carrying out carefully laid, detailed plans with precision.
26b. 0 – 1 – 2 – 3 – 4 – 5	I prefer designing plans and structures without necessarily carrying them out.
27a. 0 – 1 – 2 – 3 – 4 – 5	I prefer logical people.
27b. 0 – 1 – 2 – 3 – 4 – 5	I prefer feeling people.
28a. 0 – 1 – 2 – 3 – 4 – 5	I prefer being free to do things on the spur of the moment.
28b. 0 – 1 – 2 – 3 – 4 – 5	I prefer knowing well in advance what I am expected to do.
29a. 0 – 1 – 2 – 3 – 4 – 5	I prefer being the center of attention.
29b. 0 – 1 – 2 – 3 – 4 – 5	I prefer being reserved.
30a. 0 – 1 – 2 – 3 – 4 – 5	I prefer imagining the nonexistent.
30b. 0 – 1 – 2 – 3 – 4 – 5	I prefer examining details of the actual.
31a. 0 – 1 – 2 – 3 – 4 – 5	I prefer experiencing emotional situations, discussions, movies.
31b. 0 – 1 – 2 – 3 – 4 – 5	I prefer using my ability to analyze situations.
32a. 0 – 1 – 2 – 3 – 4 – 5	I prefer starting meetings at a prearranged time.
32b. 0 – 1 – 2 – 3 – 4 – 5	I prefer starting meetings when all are comfortable or ready.

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Thank you for your participation in this study.

APPENDIX F

PERSONAL STYLE INVENTORY – RETURN SCORE FORM

(Sample Scores)

Personal Style Inventory – Scores

ID# 1 F 1 R 23 S O

You Scored:

I – Introversion 30
E – Extroversion 10

N – Intuition 9
S – Sensing 31

T – Thinking 26
F – Feeling 14

P – Perceiving 9
J – Judging 31

Your personality type is: **I S T J**

APPENDIX G

INTERNATIONAL PERSONALITY ITEM POOL REPRESENTATION OF
THE NEO-PI-R™
IPIP-NEO – SHORT VERSION

IPIP-NEO Short Form

The following pages contain phrases describing people's behaviors. Please use the rating scale next to each phrase to describe how accurately each statement describes you. Describe yourself as you generally are now, not as you wish to be in the future. Describe yourself as you honestly see yourself, in relation to other people you know of the same sex as you are, and roughly your same age. So that you can describe yourself in an honest manner, your responses will be kept in absolute confidence. Please read each statement carefully, and then click the circle that corresponds to the accuracy of the statement.

Answer every item. Failing to answer items will return an invalid narrative report. Note that the answer circles appear directly to the right of each question. Please make sure that the circle you are choosing corresponds to the question you are considering. If you make a mistake or change your mind, simply click the circle you wish to choose. After you have answered the first 60 of the 120 total items, press the send button. at the bottom of this page. This will send your responses to the scoring program and take you to a page with the next 60 questions. After you complete this second page of 60 questions, pressing the send button will return an interpretive report to you.

All responses to this inventory from all respondents are completely confidential and will **not** be associated with you as an individual. Responses are, however, automatically entered into a database in order to improve norms by age and sex and to assess the statistical properties of item responses for groups of respondents. To ensure confidentiality of your responses to the inventory, **DO NOT** enter your real name in the box below. Please use a nickname or made-up name. If you do not enter a nickname with at least one letter or numeral in it, a random nickname will be generated for you.

Your Nickname or Made-up Name _____

This inventory will not be scored unless valid values for sex, age, and country are entered.

Sex: Male____ Female____

Age: _____

When selecting your country, please indicate the country to which you feel you belong the most, whether by virtue of citizenship, length of residence, or acculturation.

Country_____

1. Worry about things.
 - Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate

2. Make friends easily.
 - Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate

3. Have a vivid imagination.
 - Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate

4. Trust others.
 - Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate

5. Complete tasks successfully.
 - Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate

6. Get angry easily.
 - Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate

7. Love large parties.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
8. Believe in the importance of art.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
9. Use others for my own ends.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
10. Like to tidy up.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
11. Often feel blue.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
12. Take charge.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate

13. Experience my emotions intensely.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
14. Love to help others.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
15. Keep my promises.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
16. Find it difficult to approach others.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
17. I am always busy.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
18. Prefer variety to routine.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate

19. Love a good fight.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
20. Work hard.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
21. Go on binges.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
22. Love excitement.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
23. Love to read challenging material.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
24. Believe that I am better than others.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate

25. Am always prepared.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
26. Panic easily.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
27. Radiate joy.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
28. Tend to vote for liberal political candidates.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
29. Sympathize with the homeless.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
30. Jump into things without thinking.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate

31. Fear for the worst.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
32. Feel comfortable around people.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
33. Enjoy wild flights of fantasy.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
34. Believe that others have good intentions.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
35. Excel in what I do.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
36. Get irritated easily.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate

37. Talk to a lot of different people at parties.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
38. See beauty in things that others might not notice.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
39. Cheat to get ahead.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
40. Often forget to put things back in their proper place.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
41. Dislike myself.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
42. Try to lead others.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate

43. Feel others' emotions.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
44. Am concerned about others.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
45. Tell the truth.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
46. Am afraid to draw attention to myself.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
47. Am always on the go.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
48. Prefer to stick with things that I know.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate

49. Yell at people.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
50. Do more than what's expected of me.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
51. Rarely overindulge.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
52. Seek adventure.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
53. Avoid philosophical discussions.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
54. Think highly of myself.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate

55. Carry out my plans.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
56. Become overwhelmed by events.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
57. Have a lot of fun.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
58. Believe that there is no absolute right or wrong.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
59. Feel sympathy for those who are worse off than myself.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
60. Make rash decisions.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate

61. Am afraid of many things.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
62. Avoid Contacts with others.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
63. Love to daydream.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
64. Trust what people say.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
65. Handle tasks smoothly.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
66. Loose my temper.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate

67. Prefer to be alone.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
68. Do not like poetry.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
69. Take advantage of others.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
70. Leave a mess in my room.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
71. Am often down in the dumps.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
72. Take control of things.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate

73. Rarely notice my emotional reactions.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
74. Am indifferent to the feelings of others.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
75. Break rules.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
76. Only feel comfortable with friends.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
77. Do a lot in my spare time.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
78. Dislike changes.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate

79. Insult people.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
80. Do just enough work to get by.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
81. Easily resist temptations.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
82. Enjoy being reckless.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
83. Have difficulty understanding abstract ideas.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
84. Have a high opinion of myself.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate

85. Waste my time.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
86. Feel that I'm unable to deal with things.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
87. Love life.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
88. Tend to vote for conservative political candidates.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
89. Am not interested in other people's problems.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
90. Rush into things.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate

91. Get stressed out easily.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
92. Keep others at a distance.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
93. Like to get lost in thought.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
94. Distrust people.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
95. Know how to get things done.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
96. Am not easily annoyed.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate

97. Avoid crowds.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
98. Do not enjoy going to art museums.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
99. Obstruct others' plans.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
100. Leave my belongings around.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
101. Feel comfortable with myself.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
102. Wait for others to lead the way.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate

103. Don't understand people who get emotional.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
104. Take no time for others.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
105. Break my promises.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
106. Am not bothered by difficult social situations.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
107. Like to take it easy.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
108. Am attached to conventional ways.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate

109. Get back at others.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
110. Put little time and effort into my work.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
111. Am able to control my cravings.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
112. Act wild and crazy.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
113. Am not interested in theoretical discussions.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
114. Boast about my virtues.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate

115. Have difficulty starting tasks.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
116. Remain calm under pressure.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
117. Look at the bright side of life.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
118. Believe that we should be tough on crime.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
119. Try not to think about the needy.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate
120. Act without thinking.
- Very Inaccurate
 - Moderately Inaccurate
 - Neither Accurate nor Inaccurate
 - Moderately Accurate
 - Very Accurate

APPENDIX H

INITIAL CONTACT TO DIRECTOR

INITIAL CONTACT TO DIRECTOR

Date

Dear (Name):

I would like to invite you and your New Horizon's Band members to participate in a voluntary web-based questionnaire. The primary purpose of this study is to discover the needs and musical interests of New Horizons Band members. A secondary purpose is to determine the relationship between personality traits and musical interests. This questionnaire consists of two parts: The *Music Interest Questionnaire* (MIQ) and the short form for the *International Personality Item Pool Representation of the NEO PI-R™ (IPIP-NEO)*.

This questionnaire is part of a doctoral dissertation in music education at the University of Oklahoma. Results from this study will be published in the dissertation and made available for researchers.

About 10 minutes of your rehearsal time will be required for introduction, distribution of materials, and instructions. Upon agreeing to participate, you will receive a director package with all needed materials and instructions for participation in this web-based survey.

All information obtained from this research study will be kept completely confidential and anonymous.

If you would like to participate in this research study, please return the attached form to Martha Griffith (contact information provided below) via email.

Your participation would be greatly appreciated and help present and future NHB directors with program design, curriculum, and activities.

Very sincerely,

Martha Griffith
Doctoral Candidate
1303 Rebecca Lane
Norman, OK 73072
(405) 535-8064
marthagriffith@sbcglobal.net

APPENDIX I

DIRECTOR INFORMATION

DIRECTOR INFORMATION

By submitting this form, I agree to assist in this research study by distributing materials and inviting the New Horizons Band members to participate in the dissertation project titled: The relationship between personality traits and musical interests of adult learners in an instrumental music program.

All information obtained for this research study will be kept completely confidential and anonymous. Names, addresses, and email address provided for contact between researcher and director(s) will not be published or shared.

Name _____

Address (to send materials) _____

City _____ **State** _____ **Zip** _____

Which NHB do you direct? _____

(Include city and state) _____

Please list total number of NHB participants. _____

How many of your NHB members have access to the Internet? (Poll by hand count)

_____ **Do have access** _____ **Do NOT have access**

APPENDIX J

DIRECTOR THANK YOU LETTER

DIRECTOR THANK YOU LETTER

Date

Dear (Name):

Thank you for your participation in this research project. Enclosed in this package you will find the following information:

- Script for explaining the research project to the NHB ensemble
- Bookmarks and Poster with URL– One bookmark per NHB member (number agreed upon during our initial contact)

All information obtained from this research study will be kept completely confidential. Data from all participants will be pooled for the purpose of analysis and results will only be used for educational and research purposes. Your name will never be associated with the information obtained from this research.

Upon completion of this study, an abstract which explains the conclusions drawn from this research will be placed on the New Horizons Band website at www.newhorizonsband.com.

I would like to express my sincere appreciation for your help with this research study.

Very sincerely,

Martha Griffith
Doctoral Candidate
1303 Rebecca Lane
Norman, OK 73072
(405) 535-8064
marthagriffith@sbcglobal.net

APPENDIX K

DIRECTOR SCRIPT

DIRECTOR SCRIPT

Dear New Horizons Band Member,

You are invited to participate in a study of musical interests and personality traits being conducted by Martha Griffith. This questionnaire is part of a doctoral dissertation in music education at the University of Oklahoma. Results from this study will be published in the dissertation and made available for researchers.

The purpose of this study is to determine what adult learners want to gain from participation in musical organizations such as the New Horizons Band. A secondary purpose is to determine if there are any relationships between personality traits and musical interests.

Participation in this study will provide an insight into your personality traits. The information collected will also provide better insight into the types of music your ensemble is interested in playing, and rehearsal ideas and techniques. This can be used to provide better music and programming for you in the future.

Participation in this study is voluntary. If you agree to participate, you will be asked to complete an anonymous online questionnaire. The questionnaire will take about 40 minutes to complete and will focus on your personal preferences, your general background information, your musical training, your musical preferences, and your personality traits.

Each person is invited to participate and will receive a bookmark which will include the URL for the questionnaire. You are encouraged to complete the online questionnaire within two weeks. Completion date is indicated on each bookmark.

If you agree to participate in this study, please take the bookmark home and complete the online questionnaire.

All information obtained from this research study will be kept completely confidential. Data from all participants will be pooled for the purpose of analysis and results will only be used for educational and research purposes.

Your participation in this study is strictly voluntary. Refusal to participate will involve no penalty or loss of benefits to which you are otherwise entitled, and you may discontinue participation at any time without penalty or loss of benefits to which you are otherwise entitled. If you wish to withdraw from this study before data collection is completed your questionnaire will be returned to you or destroyed.

Please be aware that completing the online questionnaire implies your consent to participate.

If you have any questions concerning this research study, please contact Martha Griffith at (405) 535-8064 or Dr. Nancy Barry (faculty sponsor) at (405) 325-4146. If you have any questions about your rights as a subject/participant in this research, you can contact the Office of Research Administration at (405) 325-4757.

Thank you for your help in this research project!

APPENDIX L

FOLLOW-UP LETTER TO DIRECTOR

FOLLOW-UP LETTER TO DIRECTOR

Date

Dear (Name):

A few weeks ago, a questionnaire pack was mailed to you concerning musical interests, preferences, and learning styles of your New Horizon's Band members. Your input is important to the successful completion of this doctoral study in music education. This is just a reminder to encourage your personnel to complete the online questionnaire.

If your NHB participants have completed the online questionnaire, please accept my thanks and disregard this letter.

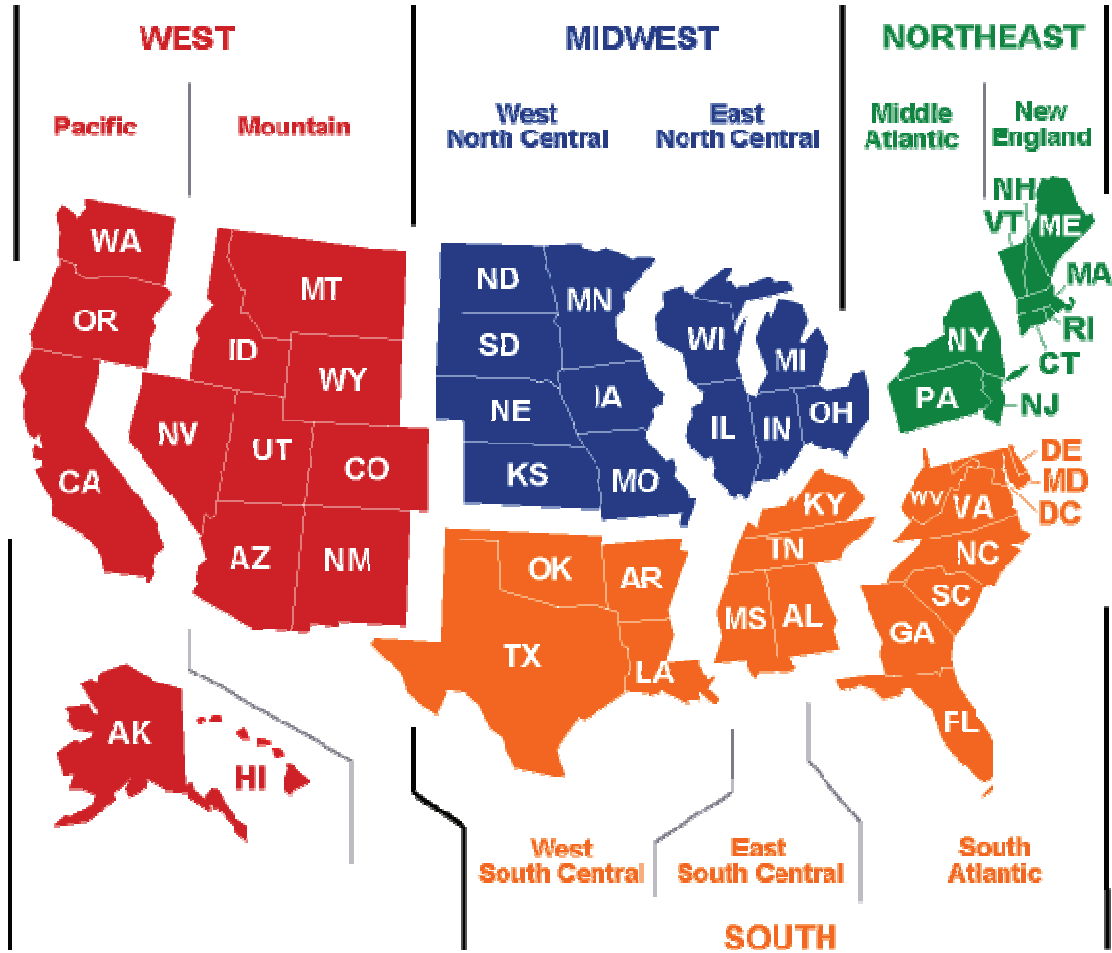
Thank you so much for your cooperation!

Very sincerely,

Martha Griffith
Doctoral Candidate
1303 Rebecca Lane
Norman, OK 73072
(405) 535-8064
marthagriffith@sbcglobal.net

APPENDIX M
UNITED STATES REGIONS AND DIVISIONS

UNITED STATES REGIONS AND DIVISIONS



(Energy Information Administration, 2005)

APPENDIX N

IPIP-NEO NARRATIVE REPORT - EXAMPLE

IPIP-NEO Narrative Report

NOTE: The report sent to your computer screen upon the completion of the IPIP-NEO is only a temporary web page. When you exit your web browser you will not be able to return to this URL to re-access your report. No copies of the report are sent to anyone. **IF YOU WANT A PERMANENT COPY OF THE REPORT, YOU MUST SAVE THE WEB PAGE TO YOUR HARD DRIVE OR A DISKETTE, AND/OR PRINT THE REPORT WHILE YOU ARE STILL VIEWING IT IN YOUR WEB BROWSER.** If you choose to save your report, naming it with an .htm extension (example: *Myreport.htm*) as you save it may help you to read it into a web browser later. If you choose to print the report, selecting landscape orientation for your paper will display the graphs properly. Using portrait orientation (normally the default for printers) will cause the graphs to wrap around and render them unreadable.

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This report compares NHBparticipant from the country USA to other women between 21 and 40 years of age. (The name used in this report is either a nickname chosen by the person taking the test, or, if a valid nickname was not chosen, a random nickname generated by the program.)

This report estimates the individual's level on each of the five broad personality domains of the Five-Factor Model. The description of each one of the five broad domains is followed by a more detailed description of personality according to the six subdomains that comprise each domain.

A note on terminology. Personality traits describe, relative to other people, the frequency or intensity of a person's feelings, thoughts, or behaviors. Possession of a trait is therefore a matter of degree. We might describe two individuals as extraverts, but still see one as more extraverted than the other. This report uses expressions such as "extravert" or "high in extraversion" to describe someone who is likely to be seen by others as relatively extraverted. The computer program that generates this report classifies you as low, average, or high in a trait according to whether your score is approximately in the lowest 30%, middle 40%, or highest 30% of scores obtained by people of your sex and roughly your age. Your numerical scores are reported and graphed as percentile estimates. For example, a score of "60" means that your level on that trait is estimated to be higher than 60% of persons of your sex and age.

Please keep in mind that "low," "average," and "high" scores on a personality test are neither absolutely good nor bad. A particular level on any trait will probably be neutral or irrelevant for a great many activities, be helpful for accomplishing some things, and detrimental for accomplishing other things. As with any personality inventory, scores and descriptions can only approximate an individual's actual personality. High and low score descriptions are usually accurate, but average scores close to the low or high boundaries might misclassify you as only average. On each set of six subdomain scales it is somewhat uncommon but certainly possible to score high in some of the subdomains and low in the others. In such cases more attention should be paid to the subdomain scores than to the broad domain score. Questions about the accuracy of your results are best resolved by showing your report to people who know you well.

John A. Johnson wrote descriptions of the five domains and thirty subdomains. These descriptions are based on an extensive reading of the scientific literature on personality measurement. Although Dr. Johnson would like to be acknowledged as the author of these materials if they are reproduced, he has placed them in the public domain.

Extraversion

Extraversion is marked by pronounced engagement with the external world. Extraverts enjoy being with people, are full of energy, and often experience positive emotions. They tend to be enthusiastic, action-oriented, individuals who are likely to say "Yes!" or "Let's go!" to opportunities for excitement. In groups they like to talk, assert themselves, and draw attention to themselves.

Introverts lack the exuberance, energy, and activity levels of extraverts. They tend to be quiet, low-key, deliberate, and disengaged from the social world. Their lack of social involvement should not be interpreted as shyness or depression; the introvert simply needs less stimulation than an extravert and prefers to be alone. The independence and reserve of the introvert is sometimes mistaken as unfriendliness or arrogance. In reality, an introvert who scores high on the agreeableness dimension will not seek others out but will be quite pleasant when approached.

```
Domain/Facet..... Score 0-----10-----20-----30-----40-----50-----60-----70-----80-----90-----99
EXTRAVERSION.....33 *****
..Friendliness.....59 *****
..Gregariousness.....2 **
..Assertiveness.....57 *****
..Activity Level.....63 *****
..Excitement-Seeking.....0
..Cheerfulness.....88 *****
```

Your score on Extraversion is average, indicating you are neither a subdued loner nor a jovial chatterbox. You enjoy time with others but also time alone.

Extraversion Facets

- *Friendliness.* Friendly people genuinely like other people and openly demonstrate positive feelings toward others. They make friends quickly and it is easy for them to form close, intimate relationships. Low scorers on Friendliness are not necessarily cold and hostile, but they do not reach out to others and are perceived as distant and reserved. Your level of friendliness is average.
- *Gregariousness.* Gregarious people find the company of others pleasantly stimulating and rewarding. They enjoy the excitement of crowds. Low scorers tend to feel overwhelmed by, and therefore actively avoid, large crowds. They do not necessarily dislike being with people sometimes, but their need for privacy and time to themselves is much greater than for individuals who score high on this scale. Your level of gregariousness is low.
- *Assertiveness.* High scorers Assertiveness like to speak out, take charge, and direct the activities of others. They tend to be leaders in groups. Low scorers tend not to talk much and let others control the activities of groups. Your level of assertiveness is average.
- *Activity Level.* Active individuals lead fast-paced, busy lives. They move about quickly, energetically, and vigorously, and they are involved in many activities. People who score low on this scale follow a slower and more leisurely, relaxed pace. Your activity level is average.
- *Excitement-Seeking.* High scorers on this scale are easily bored without high levels of stimulation. They love bright lights and hustle and bustle. They are likely to take risks and seek thrills. Low scorers are overwhelmed by noise and commotion and are adverse to thrill-seeking. Your level of excitement-seeking is low.
- *Cheerfulness.* This scale measures positive mood and feelings, not negative emotions (which are a part of the Neuroticism domain). Persons who score high on this scale typically experience a range of positive feelings, including happiness, enthusiasm, optimism, and joy. Low scorers are not as prone to such energetic, high spirits. Your level of positive emotions is high.

Agreeableness

Agreeableness reflects individual differences in concern with cooperation and social harmony. Agreeable individuals value getting along with others. They are therefore considerate, friendly, generous, helpful, and willing to compromise their interests with others'. Agreeable people also have an optimistic view of human nature. They believe people are basically honest, decent, and trustworthy. Disagreeable individuals place self-interest above getting along with others. They are generally unconcerned with others' well-being, and therefore are unlikely to extend themselves for other people. Sometimes their skepticism about others' motives causes them to be suspicious, unfriendly, and uncooperative.

Agreeableness is obviously advantageous for attaining and maintaining popularity. Agreeable people are better liked than disagreeable people. On the other hand, agreeableness is not useful in situations that require tough or absolute objective decisions. Disagreeable people can make excellent scientists, critics, or soldiers.

Domain/Facet.....	Score	0	10	20	30	40	50	60	70	80	90	99
AGREEABLENESS.....	90	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
..Trust.....	90	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
..Morality.....	71	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
..Altruism.....	66	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
..Cooperation.....	82	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
..Modesty.....	69	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
..Sympathy.....	79	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****

Your high level of Agreeableness indicates a strong interest in others' needs and well-being. You are pleasant, sympathetic, and cooperative.

Agreeableness Facets

- *Trust.* A person with high trust assumes that most people are fair, honest, and have good intentions. Persons low in trust see others as selfish, devious, and potentially dangerous. Your level of trust is high.
- *Morality.* High scorers on this scale see no need for pretense or manipulation when dealing with others and are therefore candid, frank, and sincere. Low scorers believe that a certain amount of deception in social relationships is necessary. People find it relatively easy to relate to the straightforward high-scorers on this scale. They generally find it more difficult to relate to the unstraightforward low-scorers on this scale. It should be made clear that low scorers are not unprincipled or immoral; they are simply more guarded and less willing to openly reveal the whole truth. Your level of morality is high.
- *Altruism.* Altruistic people find helping other people genuinely rewarding. Consequently, they are generally willing to assist those who are in need. Altruistic people find that doing things for others is a form of self-fulfillment rather than self-sacrifice. Low scorers on this scale do not particularly like helping those in need. Requests for help feel like an imposition rather than an opportunity for self-fulfillment. Your level of altruism is average.
- *Cooperation.* Individuals who score high on this scale dislike confrontations. They are perfectly willing to compromise or to deny their own needs in order to get along with others. Those who score low on this scale are more likely to intimidate others to get their way. Your level of compliance is high.
- *Modesty.* High scorers on this scale do not like to claim that they are better than other people. In some cases this attitude may derive from low self-confidence or self-esteem. Nonetheless, some people with high self-esteem find immodesty unseemly. Those who are willing to describe themselves as superior tend to be seen as disagreeably arrogant by other people. Your level of modesty is high.
- *Sympathy.* People who score high on this scale are tenderhearted and compassionate. They feel the pain of others vicariously and are easily moved to pity. Low scorers are not affected strongly by human suffering. They pride themselves on making objective judgments based on reason. They are more concerned with truth and impartial justice than with mercy. Your level of tender-mindedness is high.

Conscientiousness

Conscientiousness concerns the way in which we control, regulate, and direct our impulses. Impulses are not inherently bad; occasionally time constraints require a snap decision, and acting on our first impulse can be an effective response. Also, in times of play rather than work, acting spontaneously and impulsively can be fun. Impulsive individuals can be seen by others as colorful, fun-to-be-with, and zany.

Nonetheless, acting on impulse can lead to trouble in a number of ways. Some impulses are antisocial. Uncontrolled antisocial acts not only harm other members of society, but also can result in retribution toward the perpetrator of such impulsive acts. Another problem with impulsive acts is that they often produce immediate rewards but undesirable, long-term consequences. Examples include excessive socializing that leads to being fired from one's job, hurling an insult that causes the breakup of an important relationship, or using pleasure-inducing drugs that eventually destroy one's health.

Impulsive behavior, even when not seriously destructive, diminishes a person's effectiveness in significant ways. Acting impulsively disallows contemplating alternative courses of action, some of which would have been wiser than the impulsive choice. Impulsivity also sidetracks people during projects that require organized sequences of steps or stages. Accomplishments of an impulsive person are therefore small, scattered, and inconsistent.

A hallmark of intelligence, what potentially separates human beings from earlier life forms, is the ability to think about future consequences before acting on an impulse. Intelligent activity involves contemplation of long-range goals, organizing and planning routes to these goals, and persisting toward one's goals in the face of short-lived impulses to the contrary. The idea that intelligence involves impulse control is nicely captured by the term prudence, an alternative label for the Conscientiousness domain. Prudent means both wise and cautious. Persons who score high on the Conscientiousness scale are, in fact, perceived by others as intelligent.

The benefits of high conscientiousness are obvious. Conscientious individuals avoid trouble and achieve high levels of success through purposeful planning and persistence. They are also positively regarded by others as intelligent and reliable. On the negative side, they can be compulsive perfectionists and workaholics. Furthermore, extremely conscientious individuals might be regarded as stuffy and boring. Unconscientious people may be criticized for their unreliability, lack of ambition, and failure to stay within the lines, but they will experience many short-lived pleasures and they will never be called stuffy.

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Domain/Facet..... Score 0-----10-----20-----30-----40-----50-----60-----70-----80-----90-----99
CONSCIENTIOUSNESS.....82 *****
..Self-Efficacy.....89 *****
..Orderliness.....29 *****
..Dutifulness.....93 *****
..Achievement-Striving.....89 *****
..Self-Discipline.....54 *****
..Cautiousness.....88 *****

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Your score on Conscientiousness is high. This means you set clear goals and pursue them with determination. People regard you as reliable and hard-working.

Conscientiousness Facets

- *Self-Efficacy*. Self-Efficacy describes confidence in one's ability to accomplish things. High scorers believe they have the intelligence (common sense), drive, and self-control necessary for achieving success. Low scorers do not feel effective, and may have a sense that they are not in control of their lives. Your level of self-efficacy is high.
- *Orderliness*. Persons with high scores on orderliness are well-organized. They like to live according to routines and schedules. They keep lists and make plans. Low scorers tend to be disorganized and scattered. Your level of orderliness is low.
- *Dutifulness*. This scale reflects the strength of a person's sense of duty and obligation. Those who score high on this scale have a strong sense of moral obligation. Low scorers find contracts, rules, and regulations overly confining. They are likely to be seen as unreliable or even irresponsible. Your level of dutifulness is high.
- *Achievement-Striving*. Individuals who score high on this scale strive hard to achieve excellence. Their drive to be recognized as successful keeps them on track toward their lofty goals. They often have a strong sense of direction in life, but extremely high scores may be too single-minded and obsessed with their work. Low scorers are content to get by with a minimal amount of work, and might be seen by others as lazy. Your level of achievement striving is high.
- *Self-Discipline*. Self-discipline-what many people call will-power-refers to the ability to persist at difficult or unpleasant tasks until they are completed. People who possess high self-discipline are able to overcome reluctance to begin tasks and stay on track despite distractions. Those with low self-discipline procrastinate and show poor follow-through, often failing to complete tasks-even tasks they want very much to complete. Your level of self-discipline is average.
- *Cautiousness*. Cautiousness describes the disposition to think through possibilities before acting. High scorers on the Cautiousness scale take their time when making decisions. Low scorers often say or do first thing that comes to mind without deliberating alternatives and the probable consequences of those alternatives. Your level of cautiousness is high.

Neuroticism

Freud originally used the term neurosis to describe a condition marked by mental distress, emotional suffering, and an inability to cope effectively with the normal demands of life. He suggested that everyone shows some signs of neurosis, but that we differ in our degree of suffering and our specific symptoms of distress. Today neuroticism refers to the tendency to experience negative feelings. Those who score high on Neuroticism may experience primarily one specific negative feeling such as anxiety, anger, or depression, but are likely to experience several of these emotions. People high in neuroticism are emotionally reactive. They respond emotionally to events that would not affect most people, and their reactions tend to be more intense than normal. They are more likely to interpret ordinary situations as threatening, and minor frustrations as hopelessly difficult. Their negative emotional reactions tend to persist for unusually long periods of time, which means they are often in a bad mood. These problems in emotional regulation can diminish a neurotic's ability to think clearly, make decisions, and cope effectively with stress.

At the other end of the scale, individuals who score low in neuroticism are less easily upset and are less emotionally reactive. They tend to be calm, emotionally stable, and free from persistent negative feelings. Freedom from negative feelings does not mean that low scorers experience a lot of positive feelings; frequency of positive emotions is a component of the Extraversion domain.

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Domain/Facet..... Score 0-----10-----20-----30-----40-----50-----60-----70-----80-----90-----99
NEUROTICISM.....30 *****
..Anxiety.....21 *****
..Anger.....3 ***
..Depression.....7 *****
..Self-Consciousness.....94 *****
..Immoderation.....62 *****
..Vulnerability.....43 *****

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Your score on Neuroticism is low, indicating that you are exceptionally calm, composed and unflappable. You do not react with intense emotions, even to situations that most people would describe as stressful.

Neuroticism Facets

- *Anxiety*. The "fight-or-flight" system of the brain of anxious individuals is too easily and too often engaged. Therefore, people who are high in anxiety often feel like something dangerous is about to happen. They may be afraid of specific situations or be just generally fearful. They feel tense, jittery, and nervous. Persons low in Anxiety are generally calm and fearless. Your level of anxiety is low.
- *Anger*. Persons who score high in Anger feel enraged when things do not go their way. They are sensitive about being treated fairly and feel resentful and bitter when they feel they are being cheated. This scale measures the tendency to *feel* angry; whether or not the person *expresses* annoyance and hostility depends on the individual's level on Agreeableness. Low scorers do not get angry often or easily. Your level of anger is low.
- *Depression*. This scale measures the tendency to feel sad, dejected, and discouraged. High scorers lack energy and have difficult initiating activities. Low scorers tend to be free from these depressive feelings. Your level of depression is low.
- *Self-Consciousness*. Self-conscious individuals are sensitive about what others think of them. Their concern about rejection and ridicule cause them to feel shy and uncomfortable around others. They are easily embarrassed and often feel ashamed. Their fears that others will criticize or make fun of them are exaggerated and unrealistic, but their awkwardness and discomfort may make these fears a self-fulfilling prophecy. Low scorers, in contrast, do not suffer from the mistaken impression that everyone is watching and judging them. They do not feel nervous in social situations. Your level of self-consciousness is high.
- *Immoderation*. Immoderate individuals feel strong cravings and urges that they have have difficulty resisting. They tend to be oriented toward short-term pleasures and rewards rather than long- term consequences. Low scorers do not experience strong, irresistible cravings and consequently do not find themselves tempted to overindulge. Your level of immoderation is average.
- *Vulnerability*. High scorers on Vulnerability experience panic, confusion, and helplessness when under pressure or stress. Low scorers feel more poised, confident, and clear-thinking when stressed. Your level of vulnerability is average.

Openness to Experience

Openness to Experience describes a dimension of cognitive style that distinguishes imaginative, creative people from down-to-earth, conventional people. Open people are intellectually curious, appreciative of art, and sensitive to beauty. They tend to be, compared to closed people, more aware of their feelings. They tend to think and act in individualistic and nonconforming ways. Intellectuals typically score high on Openness to Experience; consequently, this factor has also been called Culture or Intellect. Nonetheless, Intellect is probably best regarded as one aspect of openness to experience. Scores on Openness to Experience are only modestly related to years of education and scores on standard intelligent tests.

Another characteristic of the open cognitive style is a facility for thinking in symbols and abstractions far removed from concrete experience. Depending on the individual's specific intellectual abilities, this symbolic cognition may take the form of mathematical, logical, or geometric thinking, artistic and metaphorical use of language, music composition or performance, or one of the many visual or performing arts. People with low scores on openness to experience tend to have narrow, common interests. They prefer the plain, straightforward, and obvious over the complex, ambiguous, and subtle. They may regard the arts and sciences with suspicion, regarding these endeavors as abstruse or of no practical use. Closed people prefer familiarity over novelty; they are conservative and resistant to change.

Openness is often presented as healthier or more mature by psychologists, who are often themselves open to experience. However, open and closed styles of thinking are useful in different environments. The intellectual style of the open person may serve a professor well, but research has shown that closed thinking is related to superior job performance in police work, sales, and a number of service occupations.

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Domain/Facet..... Score 0-----10-----20-----30-----40-----50-----60-----70-----80-----90-----99
OPENNESS TO EXPERIENCE.....46 *****
..Imagination.....74 *****
..Artistic Interests.....80 *****
..Emotionality.....44 *****
..Adventurousness.....7 *****
..Intellect.....67 *****
..Liberalism.....20 *****

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Your score on Openness to Experience is average, indicating you enjoy tradition but are willing to try new things. Your thinking is neither simple nor complex. To others you appear to be a well-educated person but not an intellectual.

Openness Facets

- *Imagination.* To imaginative individuals, the real world is often too plain and ordinary. High scorers on this scale use fantasy as a way of creating a richer, more interesting world. Low scorers are on this scale are more oriented to facts than fantasy. Your level of imagination is high.
- *Artistic Interests.* High scorers on this scale love beauty, both in art and in nature. They become easily involved and absorbed in artistic and natural events. They are not necessarily artistically trained nor talented, although many will be. The defining features of this scale are *interest in*, and *appreciation of* natural and artificial beauty. Low scorers lack aesthetic sensitivity and interest in the arts. Your level of artistic interests is high.
- *Emotionality.* Persons high on Emotionality have good access to and awareness of their own feelings. Low scorers are less aware of their feelings and tend not to express their emotions openly. Your level of emotionality is average.
- *Adventurousness.* High scorers on adventurousness are eager to try new activities, travel to foreign lands, and experience different things. They find familiarity and routine boring, and will take a new route home just because it is different. Low scorers tend to feel uncomfortable with change and prefer familiar routines. Your level of adventurousness is low.
- *Intellect.* Intellect and artistic interests are the two most important, central aspects of openness to experience. High scorers on Intellect love to play with ideas. They are open-minded to new and unusual ideas, and like to debate intellectual issues. They enjoy riddles, puzzles, and brain teasers. Low scorers on Intellect prefer dealing with either people or things rather than ideas. They regard intellectual exercises as a waste of time. Intellect should not be equated with intelligence. Intellect is an intellectual style, not an intellectual ability, although high scorers on Intellect score slightly higher than low-Intellect individuals on standardized intelligence tests. Your level of intellect is average.
- *Liberalism.* Psychological liberalism refers to a readiness to challenge authority, convention, and traditional values. In its most extreme form, psychological liberalism can even represent outright hostility toward rules, sympathy for law-breakers, and love of ambiguity, chaos, and disorder. Psychological conservatives prefer the security and stability brought by conformity to tradition. Psychological liberalism and conservatism are not identical to political affiliation, but certainly incline individuals toward certain political parties. Your level of liberalism is low.

APPENDIX O
BOOKMARK AND FLYER

Bookmark – Front

New Horizons Band
Members

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Survey closes December 1, 2005


Bookmark - Back

Personality Scores

EXTRAVERSION.....	_____
Friendliness.....	_____
Gregariousness.....	_____
Assertiveness.....	_____
Activity Level.....	_____
Excitement-Seeking.....	_____
Cheerfulness.....	_____
AGREEABLENESS.....	_____
Trust.....	_____
Morality.....	_____
Altruism.....	_____
Cooperation.....	_____
Modesty.....	_____
Sympathy.....	_____
CONSCIENTIOUSNESS.....	_____
Self-Efficacy.....	_____
Orderliness.....	_____
Dutifulness.....	_____
Achievement-Striving.....	_____
Self-Discipline.....	_____
Cautiousness.....	_____
NEUROTICISM.....	_____
Anxiety.....	_____
Anger.....	_____
Depression.....	_____
Self-Consciousness.....	_____
Immoderation.....	_____
Vulnerability.....	_____
OPENNESS TO EXPERIENCE.....	_____
Imagination.....	_____
Artistic Interests.....	_____
Emotionality.....	_____
Adventurousness.....	_____
Intellect.....	_____
Liberalism.....	_____

New Horizons Band

Do you know your...



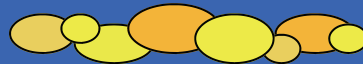
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