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# A Narrative Inquiry into the Learning Experiences of Deaf Individuals in Tennis

Robbie Jane. Carmichael  
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# Walden University

College of Education

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Robbie Carmichael

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2014

Abstract

A Narrative Inquiry into the Learning Experiences of Deaf Individuals in Tennis

by

Robbie Jane Carmichael

M.A., Gallaudet University, 1981

B.S., Gallaudet University, 1979

Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Education

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July 2014

## Abstract

Deaf individuals do not have equal access to participating in sports as their hearing counterparts in the United States. Tennis is one sport to which this lack of access applies. The purpose of this qualitative, narrative research study was to add to the research literature by illuminating the learning experiences of Deaf individuals in tennis in the United States. This study was built on a tripartite conceptual framework consisting of motivation, interaction, and the flow experience. The study explored how tennis influenced other aspects in the lives of Deaf individuals. These other aspects included exposure to the game, learning opportunities, underlying motivations, and social interaction. Participants were 9 Deaf adults who had tennis playing experience. Data were collected from the Deaf Tennis Profile Questionnaire, Deaf Tennis Experience Questionnaire, and a Deaf Tennis Videophone Interview. A priori typological and inductive analyses were used to search for themes and patterns from the data. Findings indicated that learning the game of tennis was relevant to participants' lives. As individuals experienced improvements in their tennis abilities, positive changes in self-perceptions occurred. Participants reported that experiencing the highs and lows while playing tennis increased their motivation and social interaction. Insights from these Deaf tennis participants will give administrators, physical education teachers, coaches, and recreation professionals a better understanding of more effective ways to provide tennis instruction and skills. Self-confident, skillful Deaf tennis players are better contributors to society as a whole. Participation in sports enhances the confidence, self-worth, self-image, and interaction skills of Deaf persons.



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## Table of Contents

|                                      |     |
|--------------------------------------|-----|
| List of Tables.....                  | v   |
| List of Figures.....                 | vii |
| Chapter 1: Introduction to the Study |     |
| Introduction.....                    | 1   |
| Problem Statement.....               | 4   |
| Purpose of the Study.....            | 4   |
| Research Questions.....              | 4   |
| Nature of the Study.....             | 5   |
| Conceptual Framework.....            | 7   |
| Definitions of Terms .....           | 8   |
| Assumptions .....                    | 10  |
| Scope and Delimitations .....        | 10  |
| Limitations .....                    | 11  |
| Significance of the Study.....       | 11  |
| Summary.....                         | 11  |
| Chapter 2: Literature Review         |     |
| Overview.....                        | 14  |
| Tripartite Conceptual Framework..... | 15  |
| Motivation.....                      | 15  |
| Flow Experience.....                 | 20  |
| Interactionism as Symbol.....        | 22  |

|   |    |
|---|----|
| Narrative Inquiry in Sports.....                                | 24 |
| Recreational and Leisure Pursuits.....                          | 26 |
| Social Aspects of Sport.....                                    | 32 |
| Deaf Sport.....   | 34 |
| Symbol System.....  | 34 |
| Psychological Studies: Deaf Athletes.....                       | 43 |
| Developmental Issues and Opportunities.....                     | 44 |
| School Environment.....   | 45 |
| Communication.....  | 51 |
| Deaflympics and International Committee Sports of the Deaf..... | 53 |
| USA Deaf Sports Federation.....                                 | 55 |
| Tennis.....   | 56 |
| Education and Skill Development.....                            | 56 |
| Olympic Events .....  | 57 |
| United States Tennis Association.....                           | 58 |
| Deaf Tennis.....  | 59 |
| Summary.....  | 69 |
| <br>Chapter 3: Research Method                                  |    |
| Introduction.....   | 72 |
| Research Design and Rationale.....                              | 72 |
| Research Questions.....   | 73 |
| Context of the Study.....                                       | 74 |

|  |     |
|--|-----|
| Ethical Considerations.....                | 74  |
| Role of the Researcher.....                | 75  |
| Participant Selection.....                 | 75  |
| Data Collection .....                      | 76  |
| Deaf Tennis Profile Questionnaire.....     | 78  |
| Deaf Tennis Experience Questionnaire ..... | 79  |
| Deaf Tennis Videophone Interview.....      | 79  |
| Data Analysis.....                         | 80  |
| Summary.....                               | 82  |
| Chapter 4: Research Findings               |     |
| Introduction.....                          | 84  |
| Demographics.....                          | 84  |
| Data Collection.....                       | 89  |
| Data Analysis.....                         | 89  |
| Evidence of Trustworthiness.....           | 90  |
| Results.....                               | 92  |
| Overall Narrative of Findings.....         | 108 |
| Summary.....                               | 113 |
| Chapter 5: Conclusions and Recommendations |     |
| Introduction.....                          | 115 |
| Interpretation of the Findings.....        | 116 |
| Narrative Story.....                       | 116 |

|  |     |
|--|-----|
| Recommendations.....   | 124 |
| Reflection.....  | 126 |
| Implication for Social Change.....                             | 127 |
| Conclusion.....  | 128 |
| References.....  | 131 |
| Appendix A: Deaf Tennis Profile Questionnaire .....            | 152 |
| Appendix B: Deaf Tennis Experience Questionnaire.....          | 157 |
| Appendix C: Deaf Tennis Videophone Interview.....              | 158 |
| Appendix D: Match Research and Experience Questions.....       | 159 |
| Appendix E: Initial Typologies.....                            | 160 |
| Appendix F: Initial Coding List.....                           | 163 |
| Appendix G: Figure 1. Tripartite Conceptual Framework .....    | 164 |
| Appendix H: Invitation to Participate in the Study.....        | 165 |
| Appendix I: Cover Letter for 2 questionnaires.....             | 166 |
| Appendix J: Participants' Narratives.....                      | 167 |
| Appendix K: Category Questions: CRQ, SQ, DTPQ, DTEQ, DTVI..... | 190 |
| Appendix L: Summary of Themes.....                             | 192 |
| Appendix M: IRB Approval.....                                  | 193 |
| Appendix N: Audit Trail.....                                   | 195 |
| Curriculum Vitae.....  | 197 |

List of Tables

Table 1. USA Tennis Team Medals Won at Deaflympics.....65

Table 2. USA Tennis Team Results at Dresse and Maere Cups.....68

Table 3. Gender, Current Age, and Ethnicity.....85

Table 4. Hearing Loss Diagnosed.....85

Table 5. Knowledge of American Sign Language (ASL) .....86

Table 6. Identify Yourself Personally .....86

Table 7. Socialize Most of the time with whom .....86

Table 8. Education Background .....87

Table 9. Mode of Communication .....87

Table 10. Years Playing Tennis .....88

Table 11. Level of Playing Experience .....88

Table 12. Theme 1: Tennis Influencing other Aspects in Your Life.....94

Table 13. Theme 2: Affective Reaction while Playing Tennis.....95

Table 14. Theme 3: Most Memorable Tennis Experience .....96

Table 15. Age When First Learned to Play Tennis.....97

Table 16. Individuals Influencing Your Interest in Tennis .....98

Table 17. Finding Out about Deaflympics .....98

Table 18. Tennis Offered as an Activity at School .....99

Table 19. Learning the Game from Whom or Where .....99

Table 20. Theme 4: Learning from Individuals Who Influenced Your Game .....100

Table 21. Theme 5: Improving Your Game .....101

Table 22. Theme 6: Underlying Motivations to Play Tennis .....102

|   |     |
|---|-----|
| Table 23. Theme 7: Pursuing the Tennis Game .....                       | 103 |
| Table 24. Theme 8: Importance of Tennis Team as a Social Group .....    | 104 |
| Table 25. Theme 9: Suggestions for Tennis Instructors and Coaches ..... | 105 |
| Table 26. Anything Else to Add to the Study .....                       | 107 |

List of Figures

Figure 1. Tripartite framework.....8

## Chapter 1: Introduction to the Study

### **Introduction**

Deaf sports help to enlighten the public regarding the abilities and characteristics of the Deaf community (Atherton, 2007; Stewart, 1991). When *Deaf* is capitalized, the reference is to institutions or entities directly related to the Deaf community, which includes deaf and hard of hearing individuals (Lane, Hoffmeister, & Bahan, 1996; Stewart, 1991). Deaf sports need to be endorsed outside the boundaries of the Deaf community. Deaf sports provide a model for social interaction which is a possible means of survival within the Deaf community. Stewart (1991) proposed that heritage of Deaf sport must be preserved for upcoming generations. Documents and records of Deaf sport events are needed at the local, regional, national, and international levels. These documents and records will aide in the participation of Deaf individuals in sports. Upcoming generations of Deaf individuals need to be exposed to their heritage to reinforce the prestige of the Deaf community (Stewart, 1991).

Two techniques used in sports today were invented by either a Deaf individual or team. However, both are difficult to authenticate (Gannon, 1981). The football huddle originated in the 1890s at Gallaudet University when its team started using it to prevent the opposing teams from learning the plays (Gannon, 1981). The huddle became an integral part of football today.

The baseball hand signals the umpires use were initiated by William Elsworth “Dummy” Hoy, a Deaf professional baseball player in the late 1880s (Gannon, 1981;



Pendlebury, 2003). Hoy was given this name “Dummy” which was a common nickname for Deaf individuals during his time. He became deaf in early childhood due to spinal meningitis (Pendlebury, 2003). Hoy, an Ohio native, played as an outfielder for the old Cincinnati Reds, Washington Senators, and Chicago White Sox from 1886 to 1903 (Gannon, 1981; Pendlebury, 2003; Zulauf, 2002). Hoy’s signals benefited not only him, his coaches and teammates, but they allowed the spectators to follow the action of the game (Pendlebury, 2003). In 1952, Hoy was the first athlete to be admitted to the AAAD/USADSF Hall of Fame (Gannon, 1981; Zulauf, 2002).

Leroy Peter Colombo, a Deaf lifeguard, is listed in the Guinness Book of World Records for saving 907 lives over a 40-year period of service on the beaches of Galveston, Texas (Carroll & Mather, 1997; Gannon, 1981; Jones, 1947; Marchitelli, 2011). He was born on December 23, 1905, the sixth of eight children to an Italian immigrant family. In 1924, Colombo won his first swimming race beating Herbert Brenan, the AAU National Endurance champion in a 1-mile race. Between 1928 and 1939, he won all the swim races in the Gulf of Mexico (Carroll & Mather, 1997; Gannon, 1981; Jones, 1947). Colombo, the world’s greatest lifesaver, was denied the Carnegie Medal for heroism when one of the men he rescued disclaimed his need to be rescued from a burning oil slick (Jones, 1947). On Colombo’s busiest day, he saved 19 lives. There is a concrete plaque in Galveston in memory and honor of Colombo (Carroll & Mather, 1997; Gannon, 1981; Jones, 1947).

Sports and recreational activities are essential in the Deaf community. Recreation and sports are visual events and are accessible for Deaf individuals. Visual demonstration

is an accepted means of teaching and learning motor or sports skills, especially for Deaf individuals (Stewart, 1991). Sport activities create a path for socialization in the Deaf culture. There are aspects to building a model to understand Deaf sports that influence or affect the lives of Deaf individuals (Stewart, 1991). Stewart stated that “living in a hearing world is not a problem; it is a reality” (p. 45). Deaf individuals participate in sports for physical and social interaction, especially important given the diverse sociocultural settings in which Deaf individuals reside.

Sports organizations such as USA Deaf Sports Federation (USADSF) and International Committee Sports of the Deaf (CISS) were formed in response to the uniqueness of the Deaf athlete. Following the modern Olympics, the 1924 Silent Games held in Paris was the first international competition for Deaf athletes (Seguillon, 2002; Stewart, 1991). Tennis has been an Olympic event since the 1928 Amsterdam Games. The World Deaf Team Tennis Championships, patterned after the Davis and Wrightman Cups, is another international competition for Deaf tennis players. Deaf athletes compete in athletics to interact with others (Lane, Hoffmeister, & Bahan, 1996; Stewart, 1991, p. 328). In searching for new ways to enhance the lives of Deaf individuals, athletic competition has proven to be effective. Athletic competition brings a diverse group of Deaf individuals together to share in their athletic performance (Ammons & Eickman, 2011; Atherton, 2007; Stewart, 1991).

### **Problem Statement**

Deaf individuals do not have equal access to participating in sports as their hearing counterparts in the United States. Tennis is one sport to which this lack of access

applies. Few tennis teaching instructors know sign language and work with Deaf individuals (Carmichael, 1999b). Increased understanding about motivations and learning experiences in tennis among Deaf individuals needs to occur. Tennis participation could provide benefits that may have implications for their quality of life.

### **Purpose of the Study**

The purpose of this qualitative, narrative research study was to gain an understanding about the learning experiences of Deaf individuals in tennis in the United States. I explored Deaf individuals' perspectives on tennis, including their successes and challenges with the game. From the narrative data of individuals' descriptions, suggestive baseline information was developed to facilitate administrators, instructors, coaches, directors, leaders, recreation professionals, athletes, and tennis enthusiasts in helping Deaf individuals find greater success in their tennis pursuits. Additionally, I explored any other themes that emerged from the interviews, which could affect Deaf individuals' experience in tennis. This is the first study with Deaf individuals as participants in tennis.

### **Research Questions**

This study was designed to address the following central research question:

What is the role of playing tennis in the lives of Deaf individuals?

Five subquestions were derived from the central question:

1. How do Deaf individuals become exposed to tennis?
2. What are the learning opportunities for Deaf individuals in tennis?

3. What are the underlying motivations for Deaf participants' engagement in tennis?
4. How does tennis competition impact Deaf participants?
5. What suggestions do the participants have for tennis instructors and coaches who work with Deaf individuals?

### **Nature of the Study**

In order to answer the research questions, a qualitative narrative approach was used. Because the voices of the Deaf community are absent in the research literature, the narrative approach was used to capture the stories of the Deaf individuals' experiences in sports, particularly in tennis. Narrative research was used to gather the stories of the participants, as told by individuals living their experiences. Emphasis was on understanding, remembering, and retelling their stories (Clandinin & Connelly, 2000; Creswell, 2009; Denzin & Lincoln, 2011; Hatch, 2002).

Upon approval of the Walden University Institutional Review Board (IRB) (Appendix N), I initiated this research. The participants in this study were informed that consent is voluntary, and were asked to sign an informed consent form electronically. Data was collected for demographic information and semi structured interviews from the participants. Typological and inductive analyses were used to search for patterns, themes, and relationships within the conceptual framework and research questions.

The participants in this narrative inquiry study were purposefully selected Deaf tennis players who belonged to an online e-group (Creswell, 2007; Patton, 2002). A total

of 8 to 12 Deaf individuals were sought. The goal was four to six males and four to six females. The participants had to be over the age of 18 and citizens of the United States.

Creswell (1998) explained that a qualitative approach is employed to emphasize the researcher's role as an energetic learner who is capable of enlightening the narrative from the participants' point of view. Through this study, I sought to better understand the diverse learning experiences in tennis of Deaf participants. I reflected on and integrated my experiences with the participants. However, to comprehend the experiences as described by the participants and avoid bias, I needed to remove any presumptions I had through bracketing (Creswell, 2007; Patton, 2002).

The three data gathering tools used in this research were (a) a demographic background questionnaire (Appendix A), (b) a tennis experience questionnaire (Appendix B), and (c) a videophone interview (Appendix C). The first two were self-administered online surveys; the third survey was an interview using American Sign Language (ASL). I analyzed the meanings of the interviews by first transcribing them and then outlining every statement (Creswell, 2007; Patton, 2002).

In minimizing the research bias, the participants had the opportunity to review my interpretation of their transcript, a member checking technique (Hatch, 2002). The interpretation of data continued to be as unbiased as possible. I used Hatch's typological and inductive analyses in searching for patterns, themes, and relationships within the conceptual framework and research questions (2002, p. 152).

This narrative approach envisioned a metaphorical, three-dimensional space: interaction (personal and social), continuity (past, present, and future), and situation

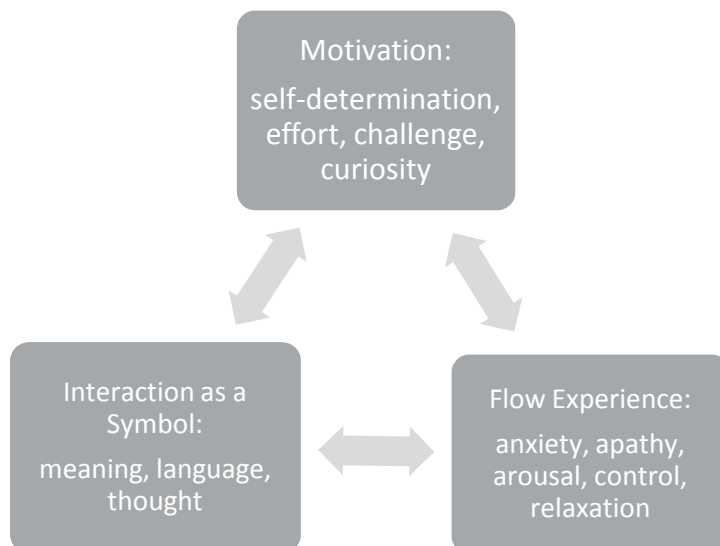
(place). Narrative inquiry means studying an experience and experiencing it concurrently with the participants (Clandinin & Connelly, 2000, p. 50).

### **Conceptual Framework**

The paradigm that grounded this study was constructivism, which was appropriate for narrative inquiry (Hatch, 2002). The researcher and participants were joined together as co-constructors of their particular reality. The context of this study included Deaf sports and the social structures that influence the participants' ability to play sports, particularly tennis. The research questions were shaped to probe into aspects of the tripartite conceptual framework discussed below. Typological data analysis began with the categories from the tripartite conceptual framework, and inductive analysis was expanded, as needed, to represent all the data. The steps for typological analysis are listed in Appendix H.

This study's tripartite conceptual framework consisted of three contextual lenses: motivation (Deci & Ryan, 1985), interaction as a symbol (Blumer, 1969), and the flow experience (Csikszentmihalyi, 1997). These defining characteristics were used to explore the Deaf individual's experience in tennis. The motivation lens involved self-determination, effort, challenge, and curiosity (Deci & Ryan, 1985). Additionally, meaning, language, and thought were integrated through interaction as important factors in the motivation process (Blumer, 1969; Denzin & Lincoln, 2011; Patton, 2002). The lens of flow experience is defined by the anxiety, apathy, arousal, control, and relaxation experienced by Deaf individuals in sports events (Csikszentmihalyi, 1997). These three defining characteristics are explained further in Chapter 2, the literature review.

Motivation, interaction, and flow experience, are key components that encourage participation in sports (Figure 1).



*Figure 1.* Tripartite framework.

See Appendix I for the initial coding list of the tripartite conceptual framework and research questions.

### **Definitions of Terms**

For the purposes of this study, the following terms are defined.

*American Sign Language (ASL):* ASL is a visual-gestural language that is used as a primary means of communication by a population of signers in the United States and Canada (Padden, 1987, p. 43). It has its own syntax and grammatical structure. It is the primary language of the deaf community in the United States and Canada.

*Deaf:* The term *deaf* with a lowercase “d” is defined as a hearing loss of 70 decibels (dB) or greater in the better ear (Vernon & Andrews, 1990). When *Deaf* is

capitalized, the reference is to institutions or entities directly related to the Deaf community which includes deaf and hard of hearing people (Stewart, 1991). The USADSF uses the loss of 55 dB or more in the better ear as a requirement for membership and participation in USADSF-sponsored competitions at the national and international level.

*Deaf culture:* Deaf and hard of hearing individuals who communicate in ASL have shared experiences and are members of the Deaf community (Padden & Humphries, 1988, p. 2).

*Deaf school:* A residence (dormitory) or day school primarily for deaf and hard of hearing students (Lane, Hoffmeister, & Bahan, 1996).

*Hard of hearing:* Hard of hearing is defined as individuals having a hearing loss of more than 16 decibels and less than 40 decibels; a person whose hearing is limited to the extent that understanding speech through the ear alone, with or without amplification, is difficult but not impossible (Vernon & Andrews, 1990, p. 9).

*Hearing impaired:* A person with any degree of hearing loss in one or both ears (Kannapell & Adams, 1984, p. 1 & 20). This term is losing its popularity.

*Late-deafened:* An individual who loses the ability to hear later in life.

*Lipreading:* A traditional technique involving a highly complex process of visual interpretation of an individual's oral communication (Moores, 2001, p. 255). This is also known as speechreading.

*National team:* A group of top-flight players who have a chance to participate in the national and international competition.



*Oral:* Oral is defined as a communication method that includes speech and lipreading.

*Pidgin sign English (PSE):* A mixture of English vocabulary and structure and ASL (Vernon & Andrews, 1990).

*Poach:* A tennis strategy used in doubles when the net player moves across and volleys a ball that would usually be played by his or her partner (Clark & Huber, 1998).

### **Assumptions**

The purpose of this qualitative study was to explore Deaf individuals' successes and challenges in the game of tennis. I assumed that the participants would respond to the interview questions openly and honestly in describing their perspectives and learning experiences. The other assumptions were as follows: Tennis is not a popular sport in the Deaf community; few Deaf schools have tennis in their physical education curriculum or afterschool recreational programs. Deaf tennis players are expected to have different experiences compared with their hearing counterparts, and more importantly, tennis participation could provide benefits that may have implications for the quality of life for Deaf participants. These assumptions were necessary because there is little scholarly work on the topic.

### **Scope and Delimitations**

The scope of this study involved Deaf adult tennis players who are citizens of the United States and members of an e-group online, and the narrative research design which was mainly focused on the interviewing. The major criterion for this study was to select

Deaf individuals who had tennis playing experience, whether on a tennis team, in a league, in Deaflympics, or the Dresse and Maere Cups.

### **Limitations**

The interpretation of data is limited to descriptive analyses of Deaf tennis participants' experiences. Because of the small sample size and the narrative inquiry approach, the results are intended to be suggestive and insightful. There is no intention to generalize to all Deaf tennis players. This study is limited to Deaf tennis players. This does not minimize the importance of this research and its findings. Insights gained may well be useful to Deaf participants in other sports.

### **Significance of the Study**

Given the minimal amount of research on Deaf athletes, particularly tennis players, my first step was to establish suggestive data and information upon which educational interventions could be based and potentially initiated. I gained insight and knowledge about the meaning of the tennis learning experiences as perceived by Deaf individuals. The experiences of the Deaf tennis participants will give administrators, physical education teachers, coaches, and recreation professionals a better understanding of the more effective ways to provide tennis instruction. Improving the quality of tennis instruction will help Deaf individuals advance their development and skills. Self-confident, skillful tennis players, both Deaf and hearing, are better contributors to society.

### **Summary**

Little research has been conducted on Deaf sports and recreational pursuits of Deaf individuals. Most of the existing literature on Deaf sport is old and is focused either on educational and social aspects influencing Deaf athletes' participation in sport

(Pinella, 1980; Stewart, 1986) or on articles written to educate the public about Deaf sport (Ammons, 1990; Ammons & Eickman, 2011; Brain, 1990; Minter, 1989; Stewart & Ammons, 1994). Sherrill (1993) maintained that studies on Deaf individuals associated with self-concept are limited especially in physical education and sports. Not much research has happened since.

This qualitative study consisted of a tripartite framework, which involved motivation, flow experience, and interaction. The central question in this research was the following: What is the role of playing tennis in the lives of Deaf individuals? The outcomes of this study may lead to ideas for developing tennis as a recreational or learning activity among Deaf individuals and may provide suggestive data and information that will persuade administrators, instructors, coaches, directors, leaders, recreational professionals, athletes, and tennis enthusiasts to assist Deaf individuals in finding greater success in their tennis pursuits. This is an area with much potential for research and practical application. In this study, I examined how participation in tennis may affect the lives of Deaf individuals. In addition, any of these new insights gained may be useful to coaches and instructors who work with Deaf individuals in sports other than tennis.

In Chapter 2, the following topics were reviewed: perceptions about motivation, flow experience, sport interactionism, narrative inquiry in sports, recreational pursuits, and learning opportunities for the Deaf. In Chapter 3, the qualitative design of narrative inquiry was described along with participant selection, role of the researcher, and procedures of data collection and analysis. Chapter 4 involved the analysis of the data

collected from the two questionnaires and the interview. Chapter 5 offered interpretations of the findings, recommendations, suggestions, and implication for social change.

## Chapter 2: Literature Review

### Overview

Researchers have not examined many aspects of Deaf sport. Given the minimal amount of research on Deaf athletes, particularly tennis players, I established information upon which educational interventions could be based and initiated. In this study, I explored Deaf individuals' perspectives on their successes and challenges in the game of tennis. I have determined how factors such as cultural, educational, and tennis experience relate to cognitive and skill development among Deaf individuals. Competence and interest are related to a healthy individual with a positive outlook on life.

In order to increase respect for the Deaf community, individuals need to understand the communication and social needs of Deaf individuals within the Deaf community's institutions, educational system, politics, economics, sports, religion, and family. This change in perspective allows Deaf individuals to discover themselves and their desire to control their own lives (Atherton, 2009; Stewart, 1991). Deaf sports are an equalizer that attracts Deaf individuals from diverse backgrounds into the community (Stewart, 1991). According to the Surgeon General's Report, individuals with disabilities participated in sports and physical activities less than individuals without disabilities, and that only 12% of those with disabilities over 18 took part in some reasonable physical activities (Yoh & Crouch, 2007).

For the literature review, the following databases were used to explore international professional journals, research papers, and dissertations: ProQuest Central, ProQuest Dissertations and Theses, Education Research Complete, Thoreau, Google Scholar, and ERIC. The search terms used were as follows: *Deaf sport, tennis, learning sport skill, symbolic interactionism, recreation, physical education, flow experience, motivation, self-determination, perceived competence, and goal achievement.*

The review of literature started with the conceptual framework, which consisted of the tripartite structure and its operational definitions such as motivation, interaction, and flow experience. I also examined narrative inquiry in sports, recreational and leisure pursuits, the social aspects of sport, Deaf sport, and tennis. These topics were arranged starting with the more current studies and correspond from general to specific. The last two topics, Deaf sport and tennis, had several subtopics. The seven subtopics under Deaf sport were symbol system, psychological studies of Deaf athletes, developmental issues and opportunities, school environment, communication, Deaflympics and International Committee Sports of the Deaf, and USA Deaf Sport Federation. The four subtopics under tennis were education and skill development, Olympic event, United States Tennis Association, and Deaf tennis.

### **Tripartite Conceptual Framework**

#### **Motivation Perceptions**

Motivation is the dynamic force or desire following the performance (Hergenhahn & Olson, 2001). Motivation is an aspect of the learning process, which promotes the

quality of learning and the learning environment itself. The learning process and motivation emphasize the role of experience that shapes each individual (Hergenhahn & Olson, 2001).

For the last 3 decades, self-determination theory (SDT) has been one of the motivational theories used in the sport management literature (Gonzalez-Cure & Sicilia, 2012; Sullivan & Strode, 2010). SDT was developed by Deci and Ryan (1985). According to SDT, individuals need to be motivated both extrinsically and intrinsically (Deci & Ryan, 1985). Intrinsic motivation is the individual wanting to do the activity because it is fun and interesting. Extrinsic motivation is when a person participates in the activity to be rewarded (Deci & Ryan, 1985).

Gillard, Watts, and Witt (2009) described SDT as a theory which is used to examine the psychological process, and its influence on an individual's reasons or motivation to take action or perform. SDT can be applied to many circumstances and individuals of any gender, age, or culture.

Sullivan and Strode (2010) discussed SDT in relation to athletes and coaches. SDT was used as a lens to determine how coaches can best enhance the motivational conditions to meet the needs of the athletes. Sullivan and Strode pointed out that the most influential socializing instruments in motivating athletes are the coaches. The athletes who are competent have the opportunity to experience an increased enjoyment, satisfaction, determination, and remain motivated in their participation of the sport. With proper goals to develop competence, the coaches can help motivate athletes to build their

determination. Sullivan and Strode further emphasized that "Motivation must come from within" (p. 20).

Motivation theories grounded in achievement and self-determination exist in research about physical education and sports (Gonzalez-Cure & Sicilia, 2012; Moreno, Lopez de Sam Roman, Martinez-Galindo, Alonso, & Gonzalez-Cutre, 2008; Standage, Gillison, & Treasure, 2007). Gonzalez and Secilia (2012) explained that there are few instruments used to assess independently in SDT. One of the instruments generally used is from another framework, achievement goal theory (Kipp & Amorose, 2008; Moreno et al., 2008).

The achievement motivation is categorized as performances a student may engage and react to achievement tasks (Dweck & Leggett, 1988; Nicholls, 1984). Nicholls (1984) labeled student achievement motivation goals into ego/performances and task/mastery. Motivation is based on ego and performance goal. The students in this type of goal focus are motivated when they recognize an opportunity to perform better than others. Therefore, they connect failure to a lack of ability rather than to how hard they try (Nicholls, 1984).

Eccles and Wigfield (1995) stated that proponents of the expectancy-values theory claim that achievement motivation depends on the students' competence-based expectancy ideas concerning success and the perceived importance of the activity. Expectancy beliefs include the students' thought of how good he or she will do in learning the activity. Task or activity value is the importance that activity may have now and in the future (Wigfield & Eccles, 2002). Eccles and Wigfield (1995) claimed that



there is a four factor concept of value made up of attainment value, intrinsic interest, utility value, and cost. Attainment value is the importance of achieving well in class. Intrinsic or interest value is how much an activity or task gets the attention of the student and provides fun activities or student interactive participation.

Interest theory, a factor of motivation, is a psychological state in which an individual focuses effort, attention, and continued involvement in a task to feel pleasure and success (Hidi, 2000). Interest is both individual and situational (Hidi, 2000). Individual interest is defined as the individual's psychological state in choosing one action over other. Situational interest is the pleasing effect of an object or task that initiates attention and involvement from the individual at the onset of individual-task involvement. Individual interest is attained with knowledge and skill gain. Situational interest connects with student physical activity levels in classes (Chen & Darst, 2002; Shen, Chen, & Tolley, 2003).

Effective communication is important in the teaching-learning process in motivating students to learn (Mottet & Beebe, 2006; Schempp, McCullick, Busch, Webster & Mason, 2006). Webster (2010) suggested six essential instructional skills for effective communication to increase student motivation in a physical or recreational activity class. The communication skills involved being clear, communicating relevance, using humor, showing immediacy, manipulating presentation style, and listening.

Motivational systems theory (Ford, 1992) is an innovative integrative theory, which was developed from Ford's living systems framework (Ford, 1987; Ford & Ford, 1987). The living systems theory, as described by Ford and Ford (1987), is an inclusive

theory of individual performance and growth that is intended to symbolize the biological, psychological, and behavioral developments of the individual. Ford and Ford explained how these developments are structured in a complex order of functioning in unpredictable environments. Motivational system theorists emphasized three trends in the field, which are (a) the perceptive direction of actions or behavior patterns, (b) the energization of actions or behavior patterns, and (c) the regulation of actions or behavior patterns. The direction of actions includes discovering the individuals' desire and what are they trying to achieve. The energization of actions includes discovering how individuals react. The regulation of actions includes analyzing what make individuals choose to attempt to do something, and then stick with it or give it up (Ford & Ford, 1987). According to motivational systems theory, performance or competence is incomparably described as the individual is likely to perform respected goals. Individuals need desire or motivation to make the first move and sustain such activity. The individual has the ability to create and carry out an activity that is suitable and operative (Ford, 1992).

Chen, Chen, and Zhu (2012) investigated 79 original studies to find the level of motivation and the connection between motivation and outcomes of K-12 students in physical education activities and tasks. Chen et al. showed that K-12 students are motivated irrelevant of the theories used in the studies, and that there was a connection between motivation and outcome. Not one motivation theory can explain about the person's motivation needs in relation to learning outcomes in physical activity (Chen & Ennis, 2004; Shen, Chen, & Guan, 2007). Chen et al. stated that "The importance of motivation is its function in facilitating and enhancing learning achievement" (p. 44). Motivation plays a role in individuals' experiences (Jackson, 1992).

Studies on self-determination have demonstrated that enjoyment increases motivation in physical and recreational activities, (Cox et al., 2008), and self-determination motivation has influence on sportsmanship (Vallerand & Losier, 1994). Domangue (2010) and Subramaniam (2010) suggested that interest-based motivation brings enjoyment to learning in physical and recreational activities. Nunez, Martin-Albo, Navarro, Sanchez, and Gonzalez-Cutre (2009) conducted a study on interpersonal relationships involving intrinsic motivation and sportsmanship. The study consisted of 195 athletes, both men and women ages between 11 and 43. The findings show that intrinsic motivation is significantly connected to sportsmanship. Evenson, Ballard, Lee, and Ammerman (2009) and Windschitl (2008) investigated how participating in physical activities and recreational sports has an impact on the individuals' achievement in education. The teachers and coaches have impact in facilitating motivation and competency among the individuals (Carr & Weigand, 2002; Gonzalez-Cure & Sicilia, 2012; Veenstra, 2009; Weidong, Solmon, Lee, Purvis, & Hongnan, 2007).

### **Flow Experience**

Flow experience is described as the inner feeling individuals absorb in an activity that cannot be interrupted. The flow concept created by Csikszentmihalyi (1997) is the state of consciousness the individual may have in order to receive a satisfying experience. The flow experience is whatever the individual does to make it happen, as described by Csikszentmihalyi (1990). Individuals studied by Csikszentmihalyi report feeling the depth of absorption and bursting of enjoyment.

Csikszentmihalyi's (1990) flow experience may include memorable moments when an individual's body or mind is extended beyond the limit in his or her endeavor to achieve a complicated and yet meaningful event. The flow concept is to improve the quality of an individual's life. Researchers find the flow concept helpful when studying happiness, intrinsic motivation, and life satisfaction. This procedure begins when the consciousness or perception of individual functions are in control. The individual accomplishes the flow only if he or she understands how it can be shaped (p. 5). In order to make this work, the individual must focus on the mission and block out everything else. It is no surprise if the individual struggles to overcome challenges, and these challenges become the enjoyable moments of his or her life. By working hard on his or her skills to reach toward higher challenges, he or she becomes a remarkable individual (p. 6).

Two types of motivation typically paired together are intrinsic and extrinsic. Csikszentmihalyi (1990) focused on the intrinsic type of motivation. Csikszentmihalyi explained that when it comes to learning, intrinsic motivation is more effective. Intrinsic motivation is emphasized as an enjoyable, efficient, and satisfying way to learn. Csikszentmihalyi developed a chart from his research, which shows the individual's challenge and skill levels that produce feelings such as anxiety, apathy, arousal, control, and relaxation. Furthermore, Csikszentmihalyi (1990) explained how an individual deals with all this experience. Once this is achieved, the individual is in control and can make sense of life. Following this achievement, then there is nothing left the individual needs to do to meet his or her satisfaction. This results in the majority of unexciting experiences turning into enjoyable experiences. For the individual, learning to meet his

or her goals is part of the thinking process. The thinking process is accomplished in the individual's everyday life (Csikszentmihalyi, 1997).

### **Interactionism as a Symbol**

In understanding leisure and sport, symbolic interactionism is a useful tool (Kelly, 1987). This is significant because symbolic interactionism observes the social process of human conduct in the face-to-face interactions that represented by leisure, play, recreation, and sport participation. The construction of Blumer's (1969) work connected the symbolic interaction theory to leisure. In a social context, Rossman believed that leisure experiences arise among individuals. His interpretation is that human interaction occurring within the leisure experience is based on Blumer's three premises. These premises are (a) social realism is created by individuals developing their own conditions through interaction; (b) individuals are competent in determining and directing their own actions and the action of others; and (c) meaning takes place through interaction (Blumer, 1969, p. 2).

The Blumer-Mead model, symbolic interactionism, is a discipline studying the interaction in the structure of meanings for individuals (Denzin & Lincoln, 2011; Patton, 2002). Symbolic interactionism evolved from the scholarly work of American philosopher George Herbert Mead. That philosophy emphasizes the representation of interaction among individuals in the mind, self, and society (Mead, 1967). Blumer (1969), a supporter of Mead who was influenced by John Dewey at the University of Chicago, sketched symbolic interactionism as a theory, which provides an understanding

of how interaction gives individuals meaning, language, and thought. These three major concepts are expanded on below.

The first major concept, meaning, affirms that individuals perform toward other individuals and things according to commonly accepted meanings. The second concept, language, provides individuals an opportunity to present meaning through symbols. The third concept, thought, transforms each individual's interpretation of symbols (Blumer, 1969).

Symbolic interactionism observes the diverse dimensions of social realism during the apparently independent activities played by individuals. This perception proposes that participating individuals generate leisure experiences during interactions with objects in social settings. Interaction, itself, is exceptionally symbolic as it engages the handling of symbols, words, meanings, and language. This leisure perception is supported by a social science theory that analyzes leisure as an interaction experience, which concurs with the symbolic interactionism of Blumer's (1969) perspective.

Iso-Ahola (1980) stressed that, in order to comprehend leisure participation, one needs to analyze the dialectic environment of leisure participation. Specifically, leisure and sport participation incorporates both a changing individual and an altering social environment where individuals interact. It is believed that individuals discover their basic symbols, conception of self, and the meanings they connect to social objects during interactions with others. The symbolic interactionism perspective proposes that leisure is a special meaning ascribed to particular social episodes which are shaped by the individuals during interaction with objects (Samdahl, 1988).

## **Narrative Inquiry in Sports**

Narrative inquiry is a method of qualitative research used to gather the stories as told by individuals living their experiences. Emphasis is on understanding, remembering, and retelling the stories as expressed by individuals and their experiences (Clandinin & Connelly, 2000; Creswell, 2009; Denzin & Lincoln, 2011; Hatch, 2002).

The sport researchers are leaning towards using the narrative inquiry as a method of collecting data because they are dissatisfied with the typical methods, which do not address the temporal, emotion, contextual, and nature of the athletes' experiences (Smith, 2010, p. 88). The researchers are using narrative inquiry because it is a proactive method of research as it has moral and ethical dimensions and many analytical benefits. The potential benefits of narrative inquiry include insight into temporal, emotional, and the contextual part of lives and relationships, the honor which comes from telling a story from experience, reflection that initiates personal and social change, the connection that is made with the experience of the individual, and how this is intertwined, brings light to the subjective world of an individual for both the individual and the interviewer, and an appreciation for the story teller (Smith, 2010, p 91).

Self is illuminated when a narrative inquiry is used as a method of research (Smith, 2010). In sport research self-esteem, motivation, health behavior, athletic identity, and sport retirement are all topics that are intertwined with self. When a narrative inquiry approach is taken, it allows the individual to experience themselves outside of his or her body and see self from a different perspective. Furthermore when researchers engage in narrative theory they are enabling the individual to authenticate self and his or her

experiences in a manner which cannot be done without telling his or her story (Smith, 2010).

Smith (2010) explained that an interview as it relates to narrative inquiry is a series of questions that are asked to initiate dialogue, but it is not limited to the questioning methods of the past. For the narrative inquiry process, multiple interviews may be warranted (Hatch, 2002; Smith, 2010). There is no highly standardized way to a narrative, as it is very informal and inviting. A narrative inquiry is conducted over time and where an interest is taken in the individual being interviewed (Clandinin & Connelly, 2000; Creswell, 2009; Denzin & Lincoln, 2011; Hatch, 2002; Smith, 2010).

The meaning of truth has been questioned in regard to narrative inquiry. There is a moral obligation to tell the truth and as the sport researcher continues in narrative inquiry, he or she will instigate the truth to be told. There are other factors that affect authenticity such as mood, subjective recollection, culture, memories, and emotion (Smith, 2010).

Since the narrative inquiry is not a conventional method of research, the choice of type can be quite subjective. The interview choices need to be made deliberately with “making, informed, responsible, principled, and strategic decisions” (Smith, 2010, p. 103). The data collection strategies should not be limited and therefore seek those strategies which will foster complex understanding of individuals’ experiences. It is not the method which should be the focus, but rather the data obtained (Clandinin & Connelly, 2000; Creswell, 2009; Denzin & Lincoln, 2011; Hatch, 2002; Smith, 2010). Humanity and ethics should always be considered in narrative inquiry. The interviewers



should begin to look more on the brighter side of life and pick what is good rather than use narrative inquiry to “counsel despair” (Smith, 2010, p. 104)

The narrative inquiry is bursting with possibilities as long as it is administered with care in the world of sports (Smith, 2010). It can contribute a deeper understanding of self, it can enlarge our understanding of individuals’ experiences, and it can contribute to the dynamics of sports by engaging in the cultural landscapes and in the world in which we live (Smith, 2010).

### **Recreational and Leisure Pursuits**

Society’s values and ideals are observed as a whole when it comes to leisure (Edginton, Jordan, DeGraaf, & Edginton, 2000). The other institutions or systems such as work, school, family, military, and public medium, have a great impact on leisure values and ideals (Edginton et al., 2000).

The values of community consist of individuals, groups, and institutions or organizations (Edginton et al., 2000). Each community has a set of ordinary values, norms, and traditions, which unite individuals together to generate a society. These ordinary values have an enormous impact on how individuals subsist in their livelihood. Each community contains agencies, especially leisure service agencies. Leisure service agencies and other organizations providing leisure place dynamic effort into endorsing and developing certain values. The growth of community values and morals are influenced by organizations and agencies such as senior centers, YMCA, Girl Scouts, Cub Scouts, Camp Fire Girls, 4-H, Special Olympics, municipal parks and recreation departments, or military recreation departments. The leisure service organizations or

systems provide leisure experiences in promoting life fulfillment and happiness (Edginton et al., 2000). Numerous particular actions are used to collect data for study on the leisure organizations or systems. Some of these collections involve research, survey, interviewing, or studying the ideas found in existing leisure organizations or systems (Edginton et al., 2000).

Edginton et al., (2000) explained that in the 21<sup>st</sup> century, many individuals search for more freedom, independence, and flexibility in both their leisure and work. Besides, individuals yearn for enjoyable and fulfilling experiences in all aspects of life. In the information era, many professionals have the chance for additional flexible work hours; focused leisure experiences; and increased control over their perspective and skill (Edginton, et al., 2000; McLean & Hurd, 2012). Socio-economic status affects this development; larger assets produce increased work flexibility. Enormous status is given to individuals who work or play on their own requisites and at their own discretion. Individuals frequently blend their work and leisure lives in such a way as to gain benefit of their imaginative potential. The society is shifting from a work-hard-play-hard direction to connecting grand status to an integrative, resourceful, flexible, and discretionary work-play lifestyle (Edginton, et al., 2000).

Leisure has meanings and consequences that are a crucial factor in the process of the individual's quality of life. According to Kelly (1996), "leisure is an integral part of who we believe ourselves to be, how others come to define us, and what we would like to become" (p. 419). In other words, leisure could comprise development of skills, participating to become better at the activity itself, or exercising to be better prepared in

another activity, such as a tennis player swimming laps to improve physical condition. Kelly (1996) stated “In action of leisure, we become something more than we were before. We may develop, what we hope to become in and through leisure” (p. 419).

Leisure is the individual’s experiences and actions. The outcomes from leisure participation may not be all positive; factors such as whether we are included or not, whether we fail or succeed, and whether we develop our own fears or a sense of competence are important.

When there is a change in the family, work, or leisure roles, other roles seemingly are influenced. New activities and interests may follow new opportunities in the individual’s life. Leisure occurs where individuals choose an action with the preferred company and in the selected environment. Kelly (1996) stated that, “in leisure activity, we may increase our sense of development, not only physical but also social or personal. We may gain in ability to take risks, develop interests, or acquire new skills” (p.419). Schmitt-Rodermund and Vonracek (1999) examined the antecedents of exploratory actions in adolescence and the role of exploration in identity development. A total of 933 subjects completed the survey, which measured activities and preferences in five different areas such as leisure, school, technology, movies, and music. Data showed that childhood exploration is the strongest predictor of exploration in adolescence. Results reported that parental behavior has an impact on childhood exploration.

Giving attention to new forms of leisure activities for the most stimulation can assist the individual in providing more interest, diversity, and balance to life. Leisure experiences can assist in meeting the needs of the developing individual, and leisure

education can aid in contributing to these experiences. Iso-Ahola (1980) emphasized that the heart of leisure experience is intrinsic motivation. It is important that individuals have a sense of freedom and independence. Therefore, this sense provided by leisure is crucial. In leisure and sport, learning interpersonal skills is enhanced in a less formal atmosphere where fewer rules are involved as compared to in a more formal institutionalized environment. Leisure and sport may offer more opportunities to explore different avenues from what we normally do to see how learning progresses.

Rapoport and Rapoport (1996) described leisure as a context of the evolving cast of characters within the family, education, work, and community. Leisure is emphasized as one aspect of dealing with developmental life tasks. The change from discovery to commitment in relationships, especially as one progresses to a new family, is placed sufficiently in the leisure context. To put it another way, the expression and development of significant relationships usually happens during leisure. Developing who we are is part of our leisure as much as anything else (Kelly, 1996).

Both work and leisure roles in an individual's life have continuities and change. During the early growing years, children try many roles and life possibilities through play. Even as play becomes more structured while growing up, it still remains an important action, which leads to learning. Openness or freedom plays an important aspect in personal development. Kelly (1996) stated "the play of childhood, the exploration of adolescence, the intimacy building of young adulthood, the competence and personal expression of the middle years, and the social integration of later life are central themes of a developmental perspective on leisure" (p. 421). Life is a significant

dynamic process in leisure. The developmental process is aimed at the individual in a social context. Kelly (1996) stated “leisure is one set of resources and opportunities along with others” (p. 421).

Leisure socialization is part of a life process, which includes interests such as recreation and sport programs, family and peer interaction, and school involvement. Human beings, beginning in infancy, develop interests and activity patterns mainly in response to the influences of others, as they grow older. It is important to recognize impulses toward play, exploration, self-expression, and social interaction. Children use play and leisure to socialize themselves, to promote and encourage contact with others (Kelly, 1996).

When it comes to leisure, age is a social context, which affects an individual in choosing free time activity (Mannell & Kleiber, 1997). It goes back to the early childhood development stages. Children and adolescents need to develop skills to become independent individuals, and expand their horizons in leisure so they can continue these activities throughout their lives (Mannell & Kleiber, 1997).

The action in leisure that seems to change significantly over the life of the individual is the interest in change itself. In the 21<sup>st</sup> century, the younger generations need to be flexible and able to adapt to changes that may occur in ways that the social environment demands of them. The older generations, on the other hand, have responsibilities to provide stability and security in the ever-changing environment. The younger generations will explore and change, and hopefully survive and prosper (Edginton et al., 2000).

Mannell and Kleiber (1997) described the generation gap, which seems to appear between the social order with parents or authority figures who play a certain role and the youth who play another role. The differences of this age-related gap, especially in terms of experimentalism and the desire for change over stability, appears in the leisure activity patterns over the lifespan. Iso-Ahola (1980) described the strong preferences for novelty as compared to familiar leisure pursuits over the lifespan. He suggested that older individuals are more like young children than adolescents or young adults in their preference for familiarity of leisure activities. The Canadian study conducted by Iso-Ahola, Jackson, and Dunn (1997) discovered that through the four adulthood stages studied, those who preferred the same activities again and again increased, while those who learned or started new activities declined. In other words, Iso-Ahola et al. (1997) maintained that the number of individuals seeking novelty in their leisure activities tends to decline as they reach advancing life stages, and those individuals who prefer stability in familiar activities seem to increase as they age. However, this illustrates that the older individuals do not disengage from being active in their lives, but instead are more selective in their leisure activities.

As the individuals get older, there is a greater need for stimulation and challenge, and leisure activities become more important in their lives (Iso-Ahola, 1980). Those who enjoy playing competitive tennis may shift from singles to doubles play as they get older, and parents who have no time to pursue their own individual activities remain involved as volunteers in helping out and cheering on their children's little leagues, after school, and church activities. Mannell and Kleiber (1997) pointed out that the problem facing research on changes in patterns of leisure activity participation over the lifespan is

that researchers focus on counting activities the individuals participate in and not on how individuals adapt to the changes occurring in their lives as they get older.

Levinson (1997) described the adult stage as fits and starts. This is the time period where the individuals pay more attention to their leisure development. Leisure provides an outlet for an individual to explore new interests and ideas with fewer constraints. Leisure adds richness and depth to one's life. Levinson pointed out that this is where an individual is motivated to find something new and to generate options. Through leisure experience, roles and tasks can be handled with less threat and accountability. Leisure has the potential to provide an opportunity for expression of intimacy. Leisure experience in social activities provides an opportunity for individuals to develop their social skills. Leisure at this stage has a significant impact on the quality of life. Levinson (1997) explained that the best way to make good use of leisure at the later life stages is to instill it in childhood. In other words, earlier, past experience of leisure is the best predictor of the future.

### **Social Aspects of Sport**

One empirical approach to the social aspect of sport is based on the socialization perspective of Mead (1967). Mead analyzed the functions and aspects of sport socialization. The social process of global sports is a tiny microcosm of the much larger society. Its constantly changing component reflects a variety of aspects (Rossman, 2000).

Mead's (1967) idea in societal development regarding sport socialization includes individuals who interact with others as they develop. Socialization outcomes include knowledge of culture (which involves language, values, norms, roles, and acquaintance)

with material culture, achievement orientations, competence, and emotion. It is emphasized that we are not passively socialized, but rather, that we influence those who influence us. Agents of socialization are family, education, church, peers, and media (Flavell, Miller, & Miller, 1993).

Sport is striking to individuals, as it is a social institution that helps them reach definite desires. Eitzen and Sage (1982) demonstrated a number of societal needs and the role of sport in their pursuit. First, sport provides a security device for spectators and participants, dispersing overload energies, stress, and argumentative ways of thinking in a socially acceptable way. Second, athletes carry on as role models by possessing the appropriate intellectual and physical qualities to be followed by other members of society. Third, sport is a worldly, quasi-religious institution via custom and ceremonial rites that strengthens society values, and thus helps adapt actions approved by custom. Many individuals choose recreational leagues that emphasize enjoyment and, at the same time, downplay the competitive and skill competence of sport.

Cratty (1989) pointed out one Freudian aspect that has some relevance in the psychology of sport, specifically Freud's theory that individuals build ego defenses through displacement as they participate in sports. In Freud's view, the individual or participant who may be angry with a particular individual or organization is likely to redirect that anger toward others within the sport event or activity. Sport spectators are helped in cleansing their aggressive feelings as they watch a sporting event or learn to compete with aggressiveness in sport, displacing their aggressive feelings toward each other.



As for the physical nature of young children in general, they learn best by doing. Children need opportunities to work on their fine motor skills that may be acquired through arts and crafts. Middle childhood is the time of curiosity and high energy, while young adolescents usually enjoy testing their skills through various projects. Adults, on the other hand, need permission to play (Jordan, 1999). Whatever individuals do is considered to be normal behavior. Therefore, a healthy individual's reinforced behavior is patterned by society, and that individual is able to adapt to social constraints with minimal strain. Indeed, individuals' health is measured by adjustments to the culture and the ability to achieve their goals within the society in which they live. This is not possible without leisure in their lives (Jordan, 1999).

Popenoe (1983) described social interaction as the "process in which [individuals] act toward or respond to others" (p. 104). The norms, customs, and rituals of the society significantly influence both the individuals' leisure activities and the individuals' perceptions and ideals of leisure. Leisure experiences usually occur more frequently than special activities or events. Social interaction is an important factor in leisure, even if it is associated with a certain activity such as playing cards, going to church, or joining a social club or group (Edginton et al., 2000).

## **Deaf Sport**

### **Symbol System**

Within Deaf sport, interaction is an important aspect involving uniqueness and experiences of an individual that presents information concerning why he or she

participates in sport (Stewart, 1991). Deaf individuals learn meanings from others, organize their lives around those meanings, and the resulting meanings are then subject to change. Stewart explained Deaf sport as an example of symbolic interactionism. The premise of this idea is based on previous research by Blumer (1969).

Symbolic interactionism can be used to demonstrate the dynamics of being Deaf and being an athlete. The executive director of Canada Deaf Sports Association, Donald McCarthy, described the symbolic system within Deaf athletes. He explained how Deaf athletes interact in competition among themselves and with hearing teams:

Deaf players playing against a hearing team in a sport like basketball, will be more open in their communication ... They have nothing to hide because the hearing players won't understand their signing...When a Deaf team plays another Deaf team the players become more secretive because they want to protect their game strategies and control play. The play is more intense and there is far more enthusiasm when Deaf athletes play against other Deaf athletes. Deaf athletes will try hard to win against a hearing team. (Stewart, 1991, p. 90)

McCarthy emphasized that communication, inspiration, and the competence reward system, impact on how Deaf athletes compete with other Deaf and hearing teams. This may lead to Deaf athletes experiencing change inside themselves when one Deaf team is competing against another Deaf team or competing against a hearing team (Stewart, 1991). Participating in sports enhances the athletes' confidence and socialization with others (Hoffman, 2012). When Deaf athletes compete with hearing athletes, the Deaf athletes find their opportunity for competition is enhanced (Kurkova,

Valkova, & Scheetz, 2011). Data has shown that Deaf athletes participating in various sports tend to use coping skills more often than hearing athletes (Grindstaff, 2007).

Sports and recreational activities are essential in the Deaf community. Indeed, such activities serve as a conduit or path for socialization into Deaf culture. “Deaf sport is an excellent vehicle for understanding the forces that have shaped the evolution of the Deaf community” (Stewart, 1991, p. x). Deaf sport symbols are loaded with cultural meaning. Deaf sport reinforces the privileges of being Deaf, as society tends to center on the negative characteristics of the Deaf individual. Motivation to become active in Deaf sport comes from many sources. For the Deaf athlete, Deaf sport provides useful rewards for participation and performance. While Deaf athletes participate in sports for the same reasons that other athletes compete, they also view communication as a very important aspect. Other avenues need to be examined to expand understanding and comprehension of Deaf dynamics and other aspects impacting the Deaf individual involved in sport activities (Stewart, 1991).

Deaf sport generally meets certain needs of Deaf individuals surrounded by the great sphere of society (Stewart, 1991). Stewart clearly states that Deaf sport is not a substitute to partaking in a hearing sport, other than as an equivalent social institution with accepted social ideals and social principles. The pathway of Deaf sport relies on the scope to which its assets execute the needs of the Deaf community.

Acknowledgment of Deaf sport playing an important part in the lives of Deaf individuals will proceed when it is acknowledged that Deaf sport is not just part of the culture within the world athletes (Stewart, 1991). Deaf sport, as an institution, represents

the social and educational determination of the Deaf community. Deaf sport illustrates many dimensions of being Deaf within a hearing society. Findings show that Deaf sport does not affect the harmony of the sport structure of society in general. Deaf sport, in general, draws Deaf individuals together in social conditions that are not threatening. For Deaf adults who work and interact without the presence of other Deaf individuals and signers, the emphasis is placed on Deaf sport as one dimension to meet their social needs. Deaf sport brings out the best of Deaf individuals and their associations in society. The social dimensions of Deaf sport reach the Deaf individuals through a social support system. With this support, Deaf individuals build their social potential and are not affected by any negative stereotyping or misconceptions about Deaf individuals (Stewart, 1991).

The dynamics of Deaf sport illustrate an extremely multitalented social crowd that disputes stereotyped pictures of secluded and underprivileged Deaf individuals in a social context. Atherton (2007) and Stewart (1991) explained that examination of diverse dimensions of Deaf sport definitely will reduce the societal misunderstandings that Deaf individuals are disadvantaged when compared to hearing equivalent individuals. That atmosphere describes misconceptions held by the majority of the population about social interactions of Deaf individuals. Ammons and Miller (1994) explained that Deaf individuals participate in sports for similar reasons as their hearing counterparts. The Deaf individuals do not view their inability to hear as a disability (Ammons & Eickman, 2011; Atherton, 2007, 2009; Hadjidakou & Nikolariazi, 2011; Padden, 1996).

Deaf sport, as an institution, represents the social and educational determination of the Deaf community. Deaf sport persists as an equalizer that attracts Deaf individuals from diverse backgrounds into the mainstream (Atherton, 2007, 2009; Stewart, 1991). Deaf sport, therefore, strengthens certain values that are not held by society in general. This is the core reason for presenting Deaf sport as a detached institution obtainable only within the precincts of a Deaf community. In the socialization area, Deaf sport provides a united force for the Deaf community. Indeed, Deaf sport is a social institution that permits Deaf individuals to confer their own evolutionary conduit that is external to the demands of a hearing society. Deaf sport persuades its participants to come to terms with the conditions of being Deaf and to launch practical social goals with commitment through interpersonal interactions, communication, language, and social mobility (Atherton, 2007, 2009; Hadjidakou & Nikolariazi, 2007, 2011; Stewart, 1991).

Stewart (1991) supported the idea that the socialization value of Deaf sport be introduced to young Deaf individuals so that they will have a better perception of the social adjustment they may face as adults. Young Deaf individuals may feel inhibited about participating in hearing teams due to communication skills. Similar uncertain feelings appear in recreation or social events as well as in classroom learning. Competition in Deaf sport promotes developing athletic proficiency and fosters self-esteem among young Deaf individuals. Due to the barrier in communication with hearing peers, Deaf youth are not offered the same opportunities to participate in community recreational sports as are their hearing counterparts (Stewart, 1991).

Motivation to become active in Deaf sport comes from many sources. Deaf sport provides useful rewards for participation and performance. Deaf athletes participate in Deaf sport for the same reasons as other athletes compete, except that Deaf individuals view communication as a very important aspect of the game.

Competition in Deaf sport promotes developing athletic proficiency and fosters self-esteem of Deaf individuals. The primary function of sporting events for Deaf individuals is to serve as a booster for interaction of a low-incidence and geographically widespread population. Deaf sport is a vehicle to promote Deaf individuals' psychological and socialization needs. Stewart (1991) explained that Deaf sport promotes a healthy image of Deaf individuals and their interactions to society. Stewart (1991) explained that "Deaf sport is a social institution where Deaf individuals exercise their right to self-determination through organization, competition, and socialization surrounding Deaf sport activities" (p. 2). Deaf athletes do not consider themselves to have a disability; rather, they think of themselves as a cultural and linguistic minority (Ammons, 2009; Ammons & Eickman, 2011; Atherton, 2009; Butterfield, 1991; Hadjidakou & Nikolariazi, 2011; Harris, 1995; Jordan, 2001; Sherrill, 1993; Stewart & Ammons, 2001). Deaf individuals want to be among other Deaf individuals and converse freely in a sport or recreational environment (Atherton, 2009; Stewart & Ammons, 2001).

Atherton (2009) and Padden (1996, 2007) described the Deaf community as a conceptual set of thoughts and activities shared among numerous smaller diverse communities of Deaf individuals and their hearing relatives, friends and associates scattered across the country. The Deaf community includes a rich history of Deaf

culture, the home and school environment, and workplace of Deaf individuals (Atherton, 2009; Padden, 1996, 2007). Harvey and Dym (1987) conducted a study on various levels, using such factors as biological, psychological, family, professional, cultural, and comfort systems. Each of these factors has an impact on the development of Deaf individuals within the community. Harvey and Dym (1987) recognized the series of interactions, which take place within and between the various levels.

Stewart (1991) believed that Deaf sport represents the principles and ideals of the Deaf community. He strongly believed that Deaf sport should stand as a separated sport institution occurring inside the boundaries of a Deaf community. Ultimately, Deaf sport as a social institution gives Deaf individuals the freedom of choice to choose their own way, which is the result of no restraints being placed on them by a hearing society. Deaf sport offers a great institutional supporting foundation in the Deaf community. Through Deaf sport, Deaf individuals are blended in the Deaf community. At the same time, Deaf sport facilitates a better appreciation and respect among Deaf and hearing populations (Atherton, 2009; Stewart, 1991).

Atherton (2007) and Stewart (1991) emphasized that recreation and leisure are conceptualized within the sphere of Deaf sport. Recreation has a strong impact on the social welfare of Deaf adults, which strengthens the organization within the Deaf community. The Deaf community benefits a great deal from the growing emphasis on recreational activities. Stewart believed that attracting a large diverse group of adults through recreation may also lead to an increase in membership in Deaf associations or clubs. Recreation facilitates Deaf adults to become more integrated in the Deaf

community. Recreation is not necessarily focused on team sports (Atherton, 2007; Stewart, 1991), but on individualized activities and hobbies as well.

Deaf sport presents a suitable structure where recreational events or activities are easily planned (Hadjikakou & Nikolariazi, 2011; Stewart, 1991). Through the organizational structure of Deaf sport, recreation bonds Deaf individuals within the Deaf community. This type of structure is an excellent source in circulating information regarding recreation. Deaf sport is prone to have a more open-door policy than other institutions within the Deaf community and consequently draws to a greater diversity of participants.

One organization that is exclusively dedicated to providing world-wide recreational activities for Deaf individuals is the World Recreation Association of the Deaf (Stewart, 1991). The World Recreation Association of the Deaf (WRAD), a non-profit recreational, cultural, and educational organization established in 1985 in Los Angeles, California, is a dynamic force in offering many recreational activities in the Deaf community. The founder of WRAD is Bruce Gross, a graduate of Gallaudet University. WRAD's goals include helping Deaf participants expand the scope of their recreation and leisure activities, educating the Deaf community on many issues with community-wide impact, and educating the hearing community about the needs of Deaf individuals so that their participation in activities with the hearing community can be facilitated.

The groups in the Deaf community are usually small in numbers and may lack Deaf leadership to uphold recreational activities. Due to these circumstances, Stewart strongly believed that the Deaf community is better served when recreation and sport are



united under the same umbrella, as one organization. Numerous Deaf sport groups are part of community associations such as Deaf clubs. These clubs facilitate the social, cultural, sport, and other needs of the Deaf community (Atherton, 2009; Hadjikakou & Nikolariazi, 2007, 2011; Padden, 2007; Stewart, 1991). Deaf clubs maintain a strong presence in the United States and other countries especially Italy and Spain (Padden, 2007). Deaf clubs in the United States and other countries have been reported to be active in sports (Atherton, 2009; Padden, 2007). Deaf individuals are attracted to sport and recreation through access to the community environment (Atherton, 2009; Padden, 2007; Stewart, 1991).

Stewart (1991) described sport as a social institution, which serves institutions such as education, discipline, family, and religion. Eitzen and Sage (1982) also illustrated different institutions as social and parallel to sport, as these institutions imitate the standards, principles, and character expectations of the athletes, and spectators. Snyder and Spreitzer (1978) recommended that the popularity of sport allows it to “express some of the dominant values of a society” (p. 25). They believed that one validation for sport in academies is that it helps children prepare for the game of life. Therefore, sport is a crucial contribution to the unity and steadiness of humanity and eventually to its survival (Eitzen & Sage, 1982). Eitzen and Sage (1982) emphasized, “sport is a secular, quasi-religious institution using ritual and ceremony to reinforce the values of society, and thereby regulating behavior to the channels prescribed by custom” (p.13).

### **Psychological Studies: Deaf Athletes**

Psychological skills are important components of improving and enhancing athletic performance. Successful performance is often a combination of physical and psychological skills rather than of physical skills alone. The literature review revealed one study on Deaf athletes and psychological skills. This study conducted by Clark and Sachs (1991) focused on 26 Deaf females competing in the national volleyball tournament in Washington, DC. They had the option of taking the Psychological Skills Inventory for Sport (PSIS- R5) in its original English form or in the American Sign Language videotaped version developed by Clark and Sachs.

The PSIS and PSIS-ASL version (American Sign Language) are often used to measure psychological skills of hearing and Deaf athletes. The PSIS is a 45-item questionnaire that measures six psychological skills that relate to athletic performance and competition: anxiety, concentration, self-confidence, motivation, mental preparation, and team orientation. The 26 players were divided into four groups (Deaf Olympic players, developmental team players, recreational players, and former Deaf Olympic players). The only significant difference among the groups was that the former Olympic team players scored significantly higher on confidence than the recreational participants.

It is also important to note that some Deaf athletes compete in both Deaf and hearing sport competitions. Clark (1990) identified advantages and disadvantages for the Deaf athlete who competes in Deaf or hearing sport events.

For the Deaf athlete who competes in the hearing world, the frustration of communication with coaches and teammates who do not sign often interferes with learning game strategies, hinders skill development, and delays team unity. A sign language interpreter may offset some frustration, but a sense of loneliness and isolation from the team may prevail. More often than not, sign language interpreters are not hired to bridge the gap for Deaf athletes playing on a hearing team due to the expense. The Deaf athlete who opts to compete in the hearing world often sacrifices communication for the high level of competition. This is not meant to minimize the level of competition in the Deaf sports world. We must examine the resources that contribute to the differences in skill levels among Deaf and hearing athletes. These resources are funding, availability of developmental sport camps, and coaching expertise. (p. C10)

As there is very little research on identity among Deaf individuals, Kannapell (1991) noted that, “cultural identity among Deaf people should be based on how Deaf people identify themselves in terms of language identity, personality identity, and social identity” (p.2). Personal identity is “how Deaf people see themselves” (p. 6). Kannapell explained that the more confused Deaf individuals are about themselves, the more likely they are to be confused about their language and social identities. Clark (1995) added that the confusion among young Deaf individuals is understandable.

### **Developmental Issues and Opportunities**

Stewart, McCarthy, and Robinson (1988) conducted a study that shows specific characteristics of Deaf sport directors and the socialization process that led to their involvement in Deaf sport. Socialization factors that influenced participation in Deaf

sport in this study were related to communication and attendance at Deaf school. Many Deaf individuals, in general, are not introduced to the Deaf community until their adult years. Being exposed to the Deaf culture is usually delayed until arrival at Deaf school or until reaching adulthood as explained by Clark (1995) whose study showed that more than 90% of the Deaf children in the U.S. have hearing parents. Not only are the present Deaf national sport organizations struggling to draw interest among Deaf individuals in their respective sport, but also the sport directors and coaches are having difficulty identifying new Deaf athletes, as explained by Stewart and Ammons (2001). In general, administrators, instructors, coaches, leaders, recreation professionals, and parents need to be conscious of developmental issues that assist young Deaf individuals in developing confidence and control over their own successes and failures (Minter, 1989).

### **School Environment**

Social changes within the society, including the Deaf community, have an impact on Deaf individuals and their motivations to embark on their own sport activities. These issues shift the Deaf community's need to focus on the situation of the different school environments in educating Deaf students (Stewart & Ammons, 2001).

By the late 1800s, almost every state in the United States had a Deaf school. Most of these Deaf schools had exceptional physical education programs that facilitated sport competition. Traditionally, Deaf sport has attracted most of its athletes from Deaf schools (Sherrill, 1993; Stewart, 1991). Many Deaf athletes who attended Deaf schools received their first exposure there to the dynamics of Deaf sport (Sherrill, 1993; Stewart & Ammons, 2001).

Stewart and Ammons (2001) are concerned about the future directions of the Deaflympics in the 21<sup>st</sup> century:

Records of Deaf sport movements in most countries are minimal or nonexistent, much of what is being predicted here is based on our observations at various Deaflympics and our understanding of the dynamics of Deaf sport as it is in the United States and Canada. (p. 46)

The gradual increase in Deaf students being educated in the public school system with their hearing peers, has led to the decline in enrollment in Deaf schools. Stewart and Ammons stated that “This trend has been occurring in the United States and Canada for the past 20 years and is also evident in Great Britain, Australia, New Zealand, France, Germany, and other countries in Western Europe” (p. 47). As a direct result of this trend, a social change in the outlook among Deaf athletes occurs. Specifically, a Deaf athlete from a public school system without any exposure to sign language may avoid social interactions required of Deaf sport competition (Stewart & Ammons, 2001).

A further dilemma in recruiting Deaf athletes is that the public school system does not incorporate information about the Deaf community into their school curriculum for the Deaf students (Gaustad, 1999). The Deaf students in the public school systems are characteristically taught or coached by individuals who are not knowledgeable about Deaf sport (Sherrill, 1993).

Kurkova, Scheetz, and Stelzer (2010) conducted a study comparing physical education and health for Deaf students in the Czech Republic and the United States. Two Deaf schools in Czech Republic and two Deaf schools in the United States were selected

for this study. All the principals from these four schools who participated in this study were hearing. The purpose of the study was to collect information about the school demographic characteristics, academic capacity, physical education and health classes, teachers' credentials, and any activities supporting a healthy lifestyle. Two questionnaires were distributed, one to Czech Republic Deaf schools in the summer, and one to the Deaf schools in the United States in the fall semester. Both questionnaires were sent via email, and followed up with a visit to all four schools. Kurkova visited all four schools. Scheetz and Stelzer visited the two schools in the United States. Additional data was gathered from a structured interview which takes about 30 minutes (Kurkova et al., 2010).

All four Deaf schools used in the study were located in the cities. Both Deaf schools in Czech Republic were residential. In the United States, one was residential, and the other one was a day school, both were located in the southern part of USA. One Czech Republic school, Pre-Kindergarten to 9<sup>th</sup> grade, had 90 students. The second Czech Republic school, Pre-Kindergarten to 13<sup>th</sup> grade, had 135 students. The United States residential school, Pre-Kindergarten to 12<sup>th</sup> grade, had 450 students, and the day school, Pre-Kindergarten to 12<sup>th</sup> grade, had 197 students (Kurkova et al., 2010).

Both Czech Republic Deaf schools at least had a gym, fitness center, track and field, and tennis courts. One had a swimming pool within a 5-minute walk. The residential school was one of the three largest Deaf schools in the United States. The residential school provided a variety of physical activities and sport events. It had three gyms, a basketball court, two swimming pools, two fitness centers, track and field, and

tennis courts. The day school had a gym, playground, and some other type of facilities (Kurkova et al., 2010).

The United States provided more physical education and health classes, and sports electives, than the classes and events offered in Czech Republic. One Czech Republic physical education teacher, former student and Deaflympics medalist, served as an outstanding role model and motivator for the Deaf students. Every year, the Deaf students from Czech Republic competed in the National Deaf Sports Games such as track and field, basketball, soccer, and swimming (Kurkova et al., 2010).

Kurkova et al. (2010) demonstrated the difference in physical education classes from performance in sports to health enhancing activities. Kurkova et al. (2010) indicated that once teachers are given the chance to change curriculum programs, for the Deaf in the health and academic areas that this change will result in healthy habits and lifelong learning habits with the students. Researchers show that sports programs can enhance self-confidence, thus encouraging a lifetime of healthy physical activity (Atherton, 2009; Hadjidakou & Nikolariazi, 2007, 2011; NASPE, 2004; Wang, 2008). Physical education can encourage significant connections with social emotional and development, and can influence the future lifestyle of the individual.

Deaf students often do not get the full information that is shared in physical education classes, specifically the health benefits that come with a healthy lifestyle (Graziadei, 1998; Reich & Lavey, 2009; Zaccagnini, 2005). There is a wealth of research that states exercise and a healthy diet leads to a healthy lifestyle. Meaningful participation

in physical education classes fosters self-esteem among young Deaf students (Wang, 2008).

Zaccagnini (2005) explained that Deaf students with multiple disabilities or special needs receive their education in residential environments. Under these conditions it is important to discover how these students are receiving information on how to live a healthy lifestyle as being in a residential environment may significantly reduce the sharing of information. Zaccagnini (2005) emphasized that physical education teachers must be motivated as collaborators in pursuing research, and must remain current in the changing education trends to be prepared to teach not only the Deaf students but others with additional disabilities as well. The physical education curriculum standards, a replication of the National Association of Sports and Physical Education (NASPE, 2004) standards are applied to both the Deaf and public schools (Corbin & McKenzie, 2008).

Physical education teachers and coaches are often uninformed or unaware of the golden opportunities existing for Deaf athletes who show potential. Graziadei's (1998) study on learning outcomes of eight Deaf students in mainstreamed physical education classes suggested that the physical educators were not exposed to the special educational needs of Deaf students, and therefore were deficient in using appropriate teaching strategies to meet their needs. Vargas, Flores, and Beyer (2012) explained that coaches can become frustrated and if they are not aware of the nature of the disabilities or special needs the athlete may have, they can deem the athlete as lazy, oppositional, defiant, or unmotivated. Furthermore, the coaches can develop negative attitudes towards these



athletes with disabilities or special needs making the experience for both coach and athlete very unpleasant.

Vargas et al. (2013) explained that in order to be successful in coaching, the coaches must be willing to incorporate research-validated strategies and instructional techniques that would benefit the athletes with disabilities or special needs. Calling the team into a U-formation will allow the greatest amount of athletes to be within close proximity to the coaches. A circle formation should be avoided because the coach cannot see what is happening behind him or her. The coaches should provide explicit instructions by providing specific demonstrations and by reinforcing these demonstrations by showing the movements and performing walk-throughs. The coaches should establish, teach, and reinforce rules by providing the athletes with structure, predictability, and routines. Coaches are important in the athlete's development and growth (Muro, Stulmaker, & Kensinger, 2012). Athletes look up to their coaches as role models, and want them to be pleased with their performance. A coach, who tries to communicate and comprehend properly with athletes, will foster healthy and positive connections. However, if an athlete is provided with a positive experience it will improve his or her self-esteem, self-efficacy, and self-acceptance (Muro et al., 2012; Vargas et al., 2012).

Hartman, Houwen, and Visscher (2011) conducted a study on motor skill performance and sports participation with a group of 42 Deaf elementary school children. The Movement Assessment Battery for Children and a questionnaire were used to determine the Deaf children's involvement in participating organized sports. 43% of the Deaf children under study participated in organized sports. These Deaf children who

participated in organized sports displayed better competence on ball skills and balance. The study revealed the significance of improving the Deaf children's motor skill performances that contribute to their participation in sports (Hartman et al., 2011).

### **Communication**

Deaf individuals communicate in numerous ways, depending on the age when the hearing loss occurred, the type of training, capacity, and connection of culture (Sherrill, 1993). The number one disability in the United States is the hearing loss (Oliva & Simonsen, 2000; Reich & Lavey, 2009). Twenty-eight million individuals in the United States have a hearing loss (Lucas, Schiller, & Benson, 2004). Ries (1994) reported that 0.5% of the population is profoundly deaf.

Sport organizations and recreation program services may come in contact with one out of every 10 individuals that has a hearing loss (Oliva & Simonsen, 2000). The common problems the programs face are: inexperienced leadership, insufficient communication, and vague program goals (Quinsland, Pomeroy, & Van Ginkel, 1986). These parts are important in providing a successful integrated program for Deaf individuals. Sport organizations and recreation program services need to find ways to provide a less restrictive environment and reduce communication barriers for Deaf individuals (Oliva & Simonsen, 2000). Program service professionals with increased knowledge and awareness are better prepared in providing integrated programs for Deaf individuals (Pomeroy, & Zaccagnini, 1978). Organizations must make efforts in adapting their programs to meet the needs of Deaf individuals (Quinsland, Pomeroy, & Van Ginkel, 1986). Expressing oneself non-verbally or demonstrating a skill is helpful when

teaching or communicating with Deaf individuals (Pomeroy, 1982). Deaf individuals are highly skilled at reading nonverbal communication, specifically, body language. Through their compensation of not being able to hear, the Deaf individuals have trained themselves to focus on visual information (Marchitelli, 2011). Additionally, organizations and program services need to find ways to provide an integrated setting for Deaf individuals, as Deaf individuals participate in classes, sports, and recreational activities, interacting with others (Oliva & Simonsen, 2000).

Deaf children missed quality opportunities to play with others, not because of limited communication or social acceptance, but due to many hours spent on speech, hearing, and language training (Sherrill, 1993). Stewart, Dummer, and Haubenstricker (1990) suggested that the different communication modes used by Deaf individuals might affect the direction of administration and research.

Stewart (1991) suggested that, as young Deaf individuals mature, they should be exposed to the socialization value of Deaf sport so that they have a better understanding of what opportunities are available. Deaf individuals may not feel comfortable in participating on hearing teams due to different communication modes (Atherton, 2007, 2009; Hadjidakou & Nikolariazi, 2007, 2011; Stewart, 1991). Similar situations emerge in recreational or social interactions as well as classroom learning. Competition in Deaf sport facilitates athletic proficiency and fosters self-esteem among young Deaf individuals. Deaf youth may not have the same opportunities to participate in community sports that hearing youth have due to communication barriers (Atherton, 2009; Stewart, 1991).

Deaf athletes generally communicate in sign language (e.g., American Sign Language in the United States and Canada). American Sign Language (ASL) is considered an authentic language, with its own grammar and syntax. American Sign Language is the fourth most popularly used language in the United States, following English, Spanish, and Italian (Flodin, 1991).

### **Deaflympics and International Committee Sports of the Deaf**

The Deaflympics, formerly World Games for the Deaf and Silent Games, were modeled after the Olympic Games and were formed by the Comité International des Sports de Sourds (CISS which is the French acronym for International Committee Sports of the Deaf). CISS/ICSD, the oldest international disability sports organization, was established in the summer of 1924 in Paris, France for Deaf athletes throughout the world. The 1924 Silent Games were also the very first international Olympic Games for world athletes with disabilities (Ammons, 1990; Jordan, 2001; Levinson & Christensen, 1999; Stewart & Ammons, 2001). The sports events held at the 1924 Silent Games in Paris included athletics (track and field), cycling, football (soccer), shooting, and swimming. The 148 participating competitors were from Belgium, Czechoslovakia, France, Great Britain, Holland, Hungary, Italy, Poland, and Romania (Jordan, 2001; Stewart & Ammons, 2001). Tennis was the sixth sport to be added as an Olympic event for the 1928 Amsterdam Games. The Silent Games commenced a long time before any other international competition was instigated for athletes with disabilities (Ammons & Eickman, 2011; Sherrill, 1993). The Winter Games were added in 1949.

The Silent Games arrived at a time when civilization viewed the Deaf as inferior individuals, both intellectually and linguistically (Atherton, 2007; Moores, 1996). This belief continued for another 40 years in the United States and still endures in some countries at the present time (Stewart & Ammons, 2001). The Deaflympics, not just a forum for demonstrating more than the capability to engage in competition, provides a cultural context in which Deaf individuals did not feel that they are a cultural and linguistic minority (Ammons & Eickman, 2011; Atherton, 2007; Stewart & Ammons, 2001).

Even though sign language is not a universal language, Deaf individuals have less difficulty in communicating and interacting with Deaf individuals in other countries through the use of signs and body language. Deaflympics is unique venue in which Deaf athletes from all over the world can communicate freely to one another especially using signs, with no need of an interpreter (Stewart & Ammons, 2001).

The rules, strategies, and skills involved in Deaflympics are not altered in any way, except for communication modes. Alterations are made with starting and stopping signals and how officials work with Deaf athletes (e.g., use of visual cues such as strobe lights for starting signals) (Jordan, 2001; Sherrill, 1993).

Jerald Jordan, past president of the CISS/ICSD, concluded in his article on the uniqueness of the Deaflympics, that:

As a group, Deaf people do not fit into either the able-bodied or disabled categories. It has been the oft-repeated experience of the Deaf community that our unique needs are lost when we are lumped into either category. Our limits are

not physical; rather, they are outside of us, in the social realm of communication. Among hearing people, whether able-bodied or disabled, we are almost always excluded, invisible, and unserved. Among ourselves however, we have no limits. (Jordan, 2001, p.1)

The CISS/ICSD has been the overseer of the Deaflympics since the 1924 Silent Games. The CISS/ ICSD now functions as the international governing body for Deaf sports. An executive committee of eight elected representatives and various national Deaf sports organizations comprise the CISS/ ICSD. All members, including athletes, are Deaf. 104 national Deaf sports federations are current members of ICSD. The International Olympic Committee (IOC) has recognized the CISS/ ICSD since 1955 (Ammons, 1990; Jordan, 2001; Stewart & Ammons, 2001). The Summer Deaflympics and Winter Deaflympics, a worldwide movement, are sanctioned by IOC.

Approximately 4500 Deaf athletes from 75 countries competed in 15 different sports at the 2001 Deaflympics in Rome, Italy. 2,493 athletes from 77 countries participated in the 2009 Deaflympics held at Chinese Taipei. At the 2013 Deaflympics held in Sofia, Bulgaria, around 5000 Deaf athletes from 80 countries competed in 19 different sports.

### **USA Deaf Sports Federation**

The USA Deaf Sports Federation (USADSF), formerly known as the American Athletic Association for the Deaf (AAAD), was formed in 1945 in Akron, Ohio as the national governing body of all Deaf sports programs in the United States (Gannon, 1981). AAAD/USADSF is comprised of seven regions and has increased from 58 Deaf clubs to

150+ clubs. In 1952, the organization established AAAD/USADSF Hall of Fame, which recognizes outstanding Deaf athletes, coaches, and sports leaders who have excelled or made exceptional contributions to the world of sports (Gannon, 1981). USADSF works closely with both the United States Olympic Committee and the CISS to promote various levels of competition (such as Olympic, international, national, regional, and local) for Deaf athletes in the USA and throughout the world (Clark, 2001). Among its responsibilities are fielding the best Deaf athletes for the summer and winter Deaflympics, which are held every four years. The only requirement for participation in the Deaflympics is that an athlete must have a hearing loss of at least 55 decibels in the better ear. At the 1977 Deaflympics held in Bucharest, Romania, the United States overtook Soviet Union with the most medals at 103, the highest total by any country since 1924 (Gannon, 1981). Unlike the Olympians, Paralympians, and Deaf athletes from other countries, USA Deaf athletes lack support from sports organizations or sponsors. The USA Deaf athletes have significant challenges in undertaking their fundraising to help cover the expenses for their training, lodging, traveling, and uniforms for the international competition.

## **Tennis**

### **Education and Skill Development**

The team of Gould, Lauer, Rolo, Jannes, and Pennisi (2008) conducted an interview with a group of tennis coaches regarding the role the parents play in their children's success in tennis. The researchers explained that parents in the United States have positive influences on children in their development and success in tennis. It is

imperative that parents are very supportive and have an appropriate attitude toward tennis (Gould, et. al., 2008). Lidor and Lavyan (2002) found that the number of outstanding athletes encouraged participating in their preferred sport by a physical education teacher or coach was small. Early recognition of competence and development are important factors in the individual's success in tennis (Roetert, Kovacs, & Crespo, 2009; Lidor & Lavyan, 2002). Coaches play an important role as facilitators in motivating and teaching the game effectively. Coaches need to instill individuals in developing their creativity by understanding of various perceptions, perceiving beforehand, watching the opponent's movements, and improving responsiveness in the game of tennis (Memmert, 2009; Roetert, et al., 2009).

### **Olympic Event**

Tennis has been an Olympic event for the hearing athletes ever since the first modern Olympics in Athens, Greece in 1896 through the 1924 Paris Games (Jones, 1985; Wallechinsky, 2000). The modern Olympics held in Athens in 1896 started with nine sports, including tennis. The other eight sports were Athletes, cycling, fencing, Greco-Roman wrestling, shooting, swimming, and weightlifting (Levey, 2012). Due to discrepancy between the International Lawn Tennis Federation (ILTF) and the International Olympic Committee (IOC) on amateur status, tennis was suspended as an Olympic event after the 1924 Paris Games and reappeared as a demonstration sport at the 1984 Los Angeles Olympics (Jones, 1985; Levey, 2012). After a 64-year hiatus, tennis returned as an official event at the 1988 Seoul Olympics (Wallechinsky, 2000; Levey, 2012).



At the hearing Olympics, each country is allowed to enter only 3 men and 3 women in singles, 1 men's doubles team, and 1 women's doubles team. The mixed doubles were launched as an Olympic event at the 1900 Paris Games. The mixed doubles event was not held at the 1904 St. Louis and 1908 London Games, and then the event was suspended indefinitely after the 1924 Paris Games (Jones, 1985). Mixed doubles became official for the first time at the 2012 London Games since the 1924 Paris Games. Tennis has a total of 5 medal events, which are men's singles, women's singles, men's doubles, women's doubles, and mixed doubles (Levey, 2012). The United States players have captured 10 gold medals out of possible 24 in tennis since the reintroduction of this sport in 1988. Since the 1988 Seoul Games, the United States has won a total of 17 tennis medals. Second was Spain with 11 medals, followed by Germany and Russia with 7 medals each (Levey, 2012).

### **United States Tennis Association**

Founded in 1881, The United States Tennis Association, formerly the U.S. National Lawn Tennis Association is the world's oldest tennis governing body (Parsons, 1998). The United States Tennis Association has more than 660,000 members and uses its assets to endorse the expansion of tennis from grassroots play to professional level players (USTA, 2002). Parsons found that 4.3 percent of the population in the United States selected tennis as an important part of their recreational activities. According to a study conducted by the Tennis Industry Association (Kamperman, 1999), tennis participation for hearing players in the U.S. has grown from 19.5 million in 1996 to 20.8 million in 1999 for ages 12 and over. The United States Tennis Association manages the

U.S. Open and it supports teams to represent the United States at the Davis Cup, Federation Cup, Summer Olympics, Paralympics, and Wheelchair Tennis (USTA, 2002).

### **Deaf Tennis**

Deaf tennis is a component of Deaf sport. Deaf tennis can also be described as Deaf individuals who play tennis. Deaf tennis can further be described as anyone, Deaf or hearing, who is involved with Deaf individuals in tennis, in ways other than playing the game. There has been little research to determine either the efficacy of skill development or how competition impacts Deaf participants who play tennis. Experience is important in understanding the nature of motivation in tennis among Deaf individuals. Participation in tennis as an activity meets expectations and provides benefits that may or may not have profound implications on performance and the quality of life for Deaf participants.

### **United States**

In the United States, most states have at least one Deaf school from kindergarten to 12th grade, although many Deaf individuals are mainstreamed in other schools. It is difficult to keep track of those Deaf individuals who are in the mainstreamed programs. As for tennis exposure at the Deaf schools, two academic high schools, Florida School for the Deaf and Blind and Texas School for the Deaf, have varsity tennis teams for boys and girls; while the two academic high schools, American School for the Deaf in Connecticut and Marie H. Katzenbach School for the Deaf in New Jersey, have only girls' varsity tennis teams. Gallaudet University in Washington, DC, the only liberal arts

college in the world for the Deaf, used to have men's and women's intercollegiate tennis teams, former members of NCAA-Division III. The highlight of Gallaudet men's tennis team was when they captured second place in the 1977 Potomac Intercollegiate Conference Championships. In 1985, the Gallaudet women's tennis team consisting of players from Sweden, Belgium, Canada, and USA came in third place in the Women's Intercollegiate Conference Championships. The Gallaudet men's and women's tennis teams were dropped from the college's athletic program in the 2000s. Around twenty members of the Gallaudet tennis teams have participated in the past Deaflympics. The National Technical Institute for the Deaf (NTID) is located next to Rochester Institute of Technology (RIT) in Rochester, New York. RIT has drawn Deaf individuals to play for intercollegiate men's and women's (hearing) tennis teams. The RIT tennis team is also a member of NCAA-Division III. Several Deaf individuals have received tennis scholarships at NCAA Division I and II universities, and some have played at community colleges.

Former Deaflympician Howard L. Gorrell founded the United States Deaf Tennis Association (USDTA) in 1978. USDTA, renamed as USA Deaf Tennis, is currently the national governing body for tennis under the auspices of USA Deaf Sport Federation (USADSF). The grassroots organization of the USA Deaf Tennis further demonstrates the popularity of tennis in Deaf sport and the Deaf community. Since its inception, USA Deaf Tennis' goal has been to promote growth in tennis development, training, recreational, and competition at the national and international level for Deaf individuals. Its mission is to increase public awareness of tennis for Deaf individuals, provide the

spectators an opportunity to watch the international Deaf tennis in action, facilitate sportsmanship, and a respect for diverse individual cultures.

USA Deaf Tennis has received some support, such as training, international travel funds, and donated equipment and apparatus from the USA Deaf Sports Federation (USADSF), United States Tennis Association (USTA), and United States Professional Tennis Registry (USPTR). Unfortunately, due to limited resources, the USA Deaf Tennis focus has been primarily on developing and training the national team to represent the United States in the international competition. Gorrell has partaken in the Deaflympics eleven times, and served as Technical Director for the Deaf International Tennis Committee. He organized the first USA Deaf Tennis Open in 2010 held in Las Vegas.

In Rochester, NY, the Rochester Institute of Technology (RIT) and National Technical Institute for the Deaf hosted the 1999 United States Deaf Games on campus. As a long-time representative of USA Deaf Tennis, I assumed the responsibilities as tennis director, managing tennis at the US Deaf Games. On the first day of the U.S. Deaf Games, excited Deaf tennis participants were glued to the demonstration given by the coach. This was the first time for many of these participants to see a coach using sign language. Most of these participants took previous tennis lessons and had to guess what was being verbalized. Many Deaf participants have missed important spoken cues on how to improve their game (Carmichael, 1999a, 2000).

There are some certified Deaf tennis teaching pros and directors in the United States at various tennis clubs, community centers, and public courts. Most of them have good speech and work mainly with hearing adults and children. There are very few Deaf

or hearing tennis teaching pros who know sign language, that work with Deaf adults and children.

Minns (2000) a Deaf certified tennis pro by US Professional Tennis Registry (USPTR) and US Professional Tennis Association (USPTA), explained that teaching tennis to Deaf individuals is a challenging and rewarding experience. He suggested some tips on teaching Deaf individuals the game of tennis. Deaf individuals benefit by demonstration of tennis skills and strategy. On the tennis court, actions speak louder than words to the Deaf individuals, as well in other sports. In other words, use many demonstrations, which give Deaf individuals a better chance at grasping skills and strategy of the game. Knowing sign language is helpful. Other tips include being patient, asking questions to be sure they understand, and having a written outline beforehand which helps Deaf individuals know what to expect.

### **International**

Young and Browne (2009) reviewed a coaching program that was performed with Deaf school children in Australia. Eighteen 3<sup>rd</sup> year physical education students of Victoria University in Melbourne signed up for a 12-week adaptive coaching course, which involved teaching tennis to a group of 18 Deaf children. Prior to the first coaching tennis session, the university students completed an Orientation to Tennis Coaching certification, and a series of lectures related to coaching individuals with special needs.

The Deaf children, 5 boys and 13 girls 9 to 13 years of age, participated in the tennis program. These children had little or no experience in playing tennis prior to the

beginning of the program. One school teacher assisted in interpreting, as well as answering questions about the Deaf school and its students. The Deaf school is located in the suburban of Melbourne. Portable nets were set up on the school's multi-purpose court with adjacent wall and open grass areas. The school gym and dance studio were used on hot days (Young & Browne, 2009).

The first session started with some mini-activities to get everyone, including the coaches, interacting and moving around. Each Deaf child spent a series of 50-60 minutes one-on-one sessions with an assigned coach. At the end of each session, all the coaches got together and shared their successes and challenges with their star pupils. At the end of Week 12, an award ceremony was presented. All Deaf children were excited to receive an engraved medallion for participating in the tennis program (Young & Browne, 2009).

Young and Browne (2009) explained the principles for successfully coaching Deaf children, which were to follow general coaching principles as in coaching any other group. Coaching Deaf children without question has many challenges. However, these challenges are typical in all situations related to coaching (Martens, 2004). The difference in coaching Deaf children and adults is the various means of communication that are used to communicate, such as gesturing, sign language, and mimes, etc. (Hanrahan, 2003). The main components of all good coaches are good planning and preparation ability to adjust to all skill levels, patience, making the experience fun, and meaningful communication while conveying the information.

USA Deaf Tennis/USADSF have sent the USA national team to Australia, Austria, Belgium, Bulgaria, Denmark, England, France, Germany, Italy, New Zealand,

and Turkey to represent the United States in world Deaf tennis competitions. In the last fifteen Deaflympics, the USA Tennis Team has captured 17 gold, 20 silver, and 20 bronze medals for a total of 57 medals for the United States. The USA Team tennis players competed against other top players representing their respective countries in five different tennis events: men's singles, women's singles, men's doubles, women's doubles, and mixed doubles. Each country is permitted to enter up to 4 men and 4 women to participate in the men's singles, women's singles, men's doubles, women's doubles, and mixed doubles. Each country may enter 4 men and 4 women in singles, 2 men's doubles teams, 2 women's doubles teams, and 4 mixed doubles teams.

In the mixed doubles event, USA Tennis Team captured a sweep of gold, silver, and bronze medals twice. The first sweep was at 1969 Deaflympics in Belgrade, and second one at the 1985 Deaflympics in Los Angeles. At the 1985 Deaflympics held in Los Angeles, USA Tennis Team captured nine out of possible thirteen medals, with a sweep of gold, silver, and bronze in mixed doubles, gold and silver in men's singles, silver in women's singles, gold in men's doubles, gold and bronze in women's doubles. The USA Team captured the most gold medals in the women's doubles event with a total of 7 gold medals. The medals won by the USA Tennis Team at the Deaflympics are presented in Table 1.

Table 1

*USA Tennis Team Medals Won at Deaflympics*

| Year | Town/Country | Men's Singles | Women's Singles | Men's Doubles | Women's Doubles | Mixed Doubles | Medal Count |
|------|--------------|---------------|-----------------|---------------|-----------------|---------------|-------------|
|------|--------------|---------------|-----------------|---------------|-----------------|---------------|-------------|

|                                |                  |                  |        |                |                          |    |
|--------------------------------|------------------|------------------|--------|----------------|--------------------------|----|
| 1957 Milan, Italy              |                  |                  |        |                | Bronze                   | 1  |
| 1961 Helsinki, Finland         | Silver           | Gold             | Bronze | Silver         | Bronze                   | 5  |
| 1965 Washington, DC            |                  | Silver           |        | Bronze         |                          | 2  |
| 1969 Belgrade, Serbia          |                  | Gold             |        | Gold<br>Bronze | Gold<br>Silver<br>Bronze | 6  |
| 1973 Malmo, Sweden             | Silver           | Bronze           |        | Gold           |                          | 3  |
| 1977 Bucharest, Romania        | Silver<br>Bronze | Silver<br>Bronze | Silver | Gold<br>Silver | Bronze                   | 8  |
| 1981 Koln, Germany             | Gold             | Bronze           | Gold   | Gold<br>Silver | Gold                     | 6  |
| 1985 Los Angeles, CA           | Gold<br>Silver   | Silver           | Gold   | Gold<br>Bronze | Gold<br>Silver<br>Bronze | 9  |
| 1989 Christchurch, New Zealand | Bronze           |                  | Silver | Bronze         | Silver                   | 4  |
| 1993 Sofia, Bulgaria           | Bronze           | Bronze           | Bronze | Gold           | Silver<br>Bronze         | 6  |
| 1997 Copenhagen, Denmark       | Silver           |                  | Gold   | Silver         | Silver<br>Bronze         | 5  |
| 2001 Rome, Italy               |                  |                  |        |                |                          | 0  |
| 2005 Melbourne, Australia      |                  |                  |        |                |                          | 0  |
| 2009 Chinese Taipei            |                  |                  |        |                |                          | 0  |
| 2013 Sofia, Bulgaria           |                  |                  |        | Gold           | Silver                   | 2  |
| total                          | 10               | 9                | 7      | 15             | 16                       | 57 |



At the 1957 Deaflympics held in Milan, Italy, Ruth Seeger and George Timchenko were the first Americans to capture a medal in tennis for the United States. Seeger and Timchenko won a bronze in mixed doubles. The first American to win a gold medal in tennis was Mary Ann Szilagy-Giuntoli, who won women's singles at the 1961 Deaflympics held in Helsinki, Finland (Gannon, 1981). Szilagy-Giuntoli and Bobbi Hutcheson Maucere captured the silver medal in women's doubles at the 1961 Deaflympics. Jeff Osborne was the first American not only to win a gold medal in men's singles, but to capture all three gold medals including men's doubles and mixed doubles at the 1981 Deaflympics held in Cologne, Germany.

Two tennis players inducted into the USADSF Hall of Fame were Mary Ann Szilagy-Giuntoli in 1991 and Bobbi Hutcheson Maucere in 1999 (Carmichael, 1999). Szilagy-Giuntoli, ranked number 3 among the hearing tennis players in her home state by Wisconsin Tennis Association (Gannon, 1981). Maucere, a five-time Deaflympician, garnered seven medals.

Emily Hangstefer was named the 2013 USADSF Sportswoman of the Year for her performance at the 2013 Deaflympics held in Sofia, Bulgaria. Emily is the first tennis player ever to receive this honor. Emily captured a gold medal in women's doubles and a silver medal in mixed doubles ending a 16 year medal drought at the Deaflympics for the USA Tennis Team (USADSF, 2013). The last medals brought home to USA were from the 1997 Deaflympics held in Copenhagen, Denmark.

During corresponding non-Olympic years, the United States was well represented in Dresse and Maere Cups. The Dresse and Maere Cups, also known as the World Deaf

Team Tennis Championships, are played every 4 years. Dresse and Maere Cups are patterned after Davis and Wrightman Cups. The Dresse Cup is an international team tennis competition for Deaf men, while the Maere Cup is an international team tennis competition for Deaf women (Gorrell, 1983; Carmichael, 1999a). The Dresse Cup, established in 1964, derived its name from the founding CISS Secretary-General, Antonie Dresse of Belgium, who competed in tennis at four Silent Games starting with the 1928 Amsterdam Games. Antonie Dresse won eight medals for his country. The Maere Cup was established in 1968 in honor of Germaine Maere, also from Belgium, who played tennis in four straight Silent Games from 1931 Nunberg Games to 1949 Copenhagen Games bringing home nine medals. Germaine Maere and Antonie Dresse shared the bronze medal in mixed doubles at the 1939 Stockholm Games. Besides the Summer Deaflympics and Winter Deaflympics, the Dresse and Maere Cups is the third longest continuously held Deaf sporting event.

The Dresse and Maere Cups were traditionally held biannually. In 1987, with the increasing number of international events and limited resources, the Dresse and Maere Cups were changed to a 4-year cycle. The United States, under the leadership of team director Gorrell first entered the Dresse and Maere Cups held in Paris in 1978. The United States first hosted the Dresse and Maere Cups in 1980 at Flushing Meadows, NY (US Open), and the second time in 1995 at the Nick Bollettieri Tennis Academy located in Bradenton, Florida (Carmichael, 1999a).

The United States women's team has brought the Maere Cup home twice, once in 1978 from Paris and, again in 1982 from Palermo, Italy. The United States men's team

captured the Dresse Cup for the first time in 1995 on the homeland in Florida (Carmichael, 1999a, 2000).

The USA men's team captured one gold, two silver, and two bronze medals at the Dresse Cup. The USA women's team secured two gold, two silver, and two bronze medals at the Maere Cup. The USA team did not participate in the 2003 and 2011 Cups. The USA sent the men's team only at the 2007 Dresse Cup. The USA tennis team results at the Dresse and Maere Cups are presented in Table 2.

Table 2

*USA Tennis Team Results at Dresse and Maere Cups*

| Year | Town/Country         | Dresse Cup men  | Maere Cup women |
|------|----------------------|-----------------|-----------------|
| 1978 | Paris, France        | Bronze          | Gold            |
| 1980 | Flushing Meadows, NY | Silver          | Silver          |
| 1982 | Palermo, Italy       | 5 <sup>th</sup> | Gold            |
| 1984 | Nivelles, Belgium    | 7 <sup>th</sup> | Silver          |
| 1987 | Pau, France          | Silver          | 4 <sup>th</sup> |
| 1991 | Hatfield, England    | Bronze          | Bronze          |
| 1995 | Bradenton, FL        | Gold            | Bronze          |
| 1999 | Loano, Italy         | 6 <sup>th</sup> | 4 <sup>th</sup> |
| 2003 | Portschach, Austria  | ---             | ---             |
| 2007 | Munchen, Germany     | dnp             | ---             |

|   |               |     |     |
|---|---------------|-----|-----|
| 2011  | Izmir, Turkey | --- | --- |
| dnp – did not place<br>--- No USA Team Representation |               |     |     |

USA Deaf Tennis is hosting the Dresse and Maere Cups for the third time in 2014. The Deaf international tennis Cups will be held at the Champions Club Tennis Center in Chattanooga, Tennessee from July 14-19, 2014. The Deaf tennis players representing different countries will compete and gain experience playing the game at the international level. These tennis players, who have the opportunity to compete in the Tennis Cups, will be better prepared for the 2017 Deaflympics in Ankara, Turkey.

### **Summary**

Many of the references discussed in this chapter are more than 10 years old. It was difficult to find more research. This is evidence of the need for current research in Deaf sport. Having limited learning experiences in life equates to many as a limit on self and society. However, a wisely chosen learning experience can offer great benefit to individuals and their cultures. Societies that cultivate a wide variety of intriguing learning activities are positively affected.

Motivation is an important aspect in the learning process. Effective communication is important in motivating individuals to learn (Mottet & Beebe, 2006; Webster 2010). Hergenhahn and Olson (2001) enlightened motivation as the dynamic force following the performances. Ryan and Deci (2000) described intrinsic motivation as rewards that are internal to the individual, and the activity is done for the simple joy of

doing it. Csikszentmihalyi (1990) believed that intrinsic motivation creates the flow, which provides its own reward.

Symbolic interactionism, a Blumer-Mead model, provides an understanding of how interaction gives individuals meaning, language, and thought (Denzin & Lincoln, 2011; Patton, 2002). This theory indicates that individuals need to share a symbol system in order to communicate with one another. Individuals learn meanings from others, organize their lives around those meanings, and in that process, the meanings are subject to change.

Stewart (1991) explained symbolic interactionism as an important aspect in Deaf sport which includes experiences of an individual that presents information concerning why he or she participates in sport. Stewart (1991) emphasized that Deaf sport is an important social institution. Deaf individuals gain independence through association, competition, and socialization encircling Deaf sport activities. The complexity of Deaf sport represents numerous dimensions of the Deaf individual in a hearing society (Stewart, 1991). In other words, Deaf sport is a unit of the Deaf community. Leisure and Deaf sport are portrayed as social institutions comparable to institutions of education, science, family, religion, and politics.

The exploration of socialization needs and development of personal and social identities may be found through leisure. Therefore, experiencing leisure is a crucial factor in an individual's social identity. The role of leisure experiences have been described in detail from a variety of theories and concepts for individuals with a healthy

personality. Leisure is seen to offer diversity to the quality of life, which is difficult to accomplish in other ways.

Societal development in the context of leisure and sport socialization includes individuals who interact with others as they develop (Rossman, 2000). Leisure, play, sport, and interaction dynamics are crucial factors in contributing to the harmony and stability of a society and in the most general sense, for survival itself.

The research design and methodology in the analysis of learning experiences in tennis among Deaf individuals were reviewed in Chapter 3. The narrative inquiry design was developed for this study. The demographic background questionnaire, tennis experience questionnaire, and videophone interview were described. Typological and inductive analyses were used to search for patterns, themes, and relationships within the conceptual framework and research questions.

## Chapter 3: Research Method

### **Introduction**

The purpose of this qualitative narrative study was to gain an understanding of the learning experiences of Deaf individuals in tennis in the United States. The participants were purposefully selected: adult Deaf tennis players. The three data gathering tools used in this research were (a) demographic background questionnaire, (b) tennis experience questionnaire, and (c) videophone interview. From the research narrative data of individuals' descriptions, suggestive baseline information were developed to help administrators, instructors, coaches, directors, leaders, recreation professionals, athletes, and tennis enthusiasts in assisting Deaf individuals in finding greater success in their tennis pursuits.

### **Research Design and Rationale**

I selected a qualitative study because understanding the perspectives of Deaf individuals regarding their tennis experiences is best gained through personal contacts. Merriam (1998) pointed out that the mission of a qualitative study is to shape a distinctive interpretation of participant's perspectives and not to generalize the results or outcomes.

Several qualitative designs were explored. Biography and ethnography were rejected because they do not focus on whole lives or whole cultures. A case study was rejected because the participants came from a wide variety of backgrounds and did not represent a case of anything. Grounded theory was rejected because the concept to be

explored did not include constructing a theory. A phenomenological study was rejected because it is used to explore the essence of a phenomenon. I chose a narrative inquiry for this study because I wanted to examine the experience of an individual or individuals (Clandinin & Connelly, 2000; Creswell, 2007; Denzin & Lincoln, 2011). This technique includes the reporting of stories told by individuals of their lived experiences. Researchers emphasize participants' understanding, remembering, and retelling of stories (Clandinin & Connelly, 2000; Connelly & Clandinin, 1990; Creswell, 2009; Denzin & Lincoln, 2011; Hatch, 2002; Merriam, 1998). A narrative inquiry study would help me to meet the current research goals.

There are several narrative strategies used in cultural transactions. Hole (2007) conducted a study using the narrative research approach about three Deaf females and their life stories. Hole analyzed how these Deaf females have developed their identities from integrating and battling cultural narratives.

### **Research Questions**

This study was designed to address the following central research question:

What is the role of playing tennis in the lives of Deaf individuals?

Five subquestions were derived from the central question:

1. How do Deaf individuals become exposed to tennis?
2. What are the learning opportunities for Deaf individuals in tennis?
3. What are the underlying motivations for Deaf participants' engagement in tennis?



4. How does tennis competition impact Deaf participants?
5. What suggestions do the participants have for tennis instructors and coaches who work with Deaf individuals?

### **Context of the Study**

The participants in this narrative inquiry study were purposefully selected individuals who are Deaf tennis players (Creswell, 2007; Patton, 2002). The learning experiences as perceived by the participants were analyzed to understand aspects of playing tennis without being able to hear. The Deaf tennis players were expected to have different experiences than their hearing counterparts. The three data gathering tools used in this research were (a) demographic background questionnaire, (b) tennis experience questionnaire, and (c) videophone conference interview. The first two were self-administered online, and the third one was a videophone interview using American Sign Language (ASL).

### **Ethical Considerations**

The participants in the study were members of the USA Deaf Tennis group, a closed e-group under Facebook. At the time of the study, there were 60 subscribers including myself. An informed consent was signed by each participant. Each potential participant was told that they could withdraw from the study at any time. The participants' confidentiality was protected so that the collected data would not affect their current or future relations with Walden University and USA Deaf Tennis. Every effort was made to earn and maintain trust with the participants. I protected the rights of the

study participants to privacy and confidentiality by keeping the records of this study confidential. The hard copies, recordings of the interviews, and the key of each participant's actual name and pseudonym are stored in a locked steel file cabinet in my home. In any further published reporting, no information will be provided that would make it possible to identify the participants or any other individuals they may have mentioned.

### **Role of the Researcher**

Creswell (1998) explained that a qualitative approach is usually employed to emphasize the researcher's role as a learner who is capable of enlightening the narrative from the participants' view. Through this study, I sought to better understand the diverse learning experiences in tennis of Deaf participants. I have reflected and integrated my experiences with those of the participants. However, I needed to remove my presumptions through bracketing to comprehend the experience as described by the participants (Creswell, 2007; Patton, 2002).

### **Participant Selection**

The information about this study was posted under the USA Deaf Tennis e-group in Facebook explaining the requisites to be a potential participant in the study. I have received approval from the USA Deaf Tennis facilitator to conduct the study with the participants who are subscribers of this closed e-group. The criterion for participating in this study is Deaf individuals over the age of 18 who are citizens of the United States; participants must have had tennis playing experience, whether playing on a tennis team,

taking a tennis class, or participating in a tennis clinic. Nine participants of the 60-member closed e-group who have met the criterion received a copy of the informed consent form. After signing the informed consent form, the participants were asked to complete a close-ended demographic background questionnaire, an open-ended individual experience questionnaire, and an individual videophone interview.

Initially, membership on the USA Team in the Deaflympics or Dresse and Maere Cups was considered as a criterion, but was rejected because I felt that those criteria did not meet the diversity requirements. If possible, a gender balance was to be selected. In purposeful sampling, the focus is on selecting individuals who may have rich information and insights that will shed light on the questions under study.

### **Data Collection**

In a narrative inquiry, the individual interview is the primary method of data collection (Clandinin & Connelly, 2000; Creswell, 2007; Denzin & Lincoln, 2011). The interviewing process is the “art of communication” (Janesick, 2004, p. 71). This brings in statements that demonstrate the experiences of the participants. The sample of individuals for a narrative study was selected based on those individuals’ experiences. I needed to discover from the participants what learning experiences they perceived and what impact it had on their lives. This narrative study centers not on the entire life of the individuals, but more on a particular aspect, the learning experiences associated with playing tennis. Therefore, I was interested in understanding the symbolic meaning of this aspect of individuals’ lives, rather than of their whole life.

Creswell (2007) emphasized that the decisive factor for assessing a qualitative study is its credibility (p. 204). Credibility is described as the point where the data, data analysis, and conclusions are authentic and trustworthy. The patterns emerging from the data need to be consistent. The statements from the data need to be precise, reliable, and significant. Additionally, the researcher must have confidence in the outcomes of the data and its conclusions (Creswell, 2007). This procedure of data analysis improves the validity of these major findings (Creswell, 2009, p. 191). The conclusion of a narrative inquiry characteristically consists of a narrative description, which integrates information about the experience under study (Creswell, 2009; Patton, 2002).

Creswell (2007) explained that the basic data collection in a narrative inquiry is the procedure of collecting data from in-depth interviews with up to 10 participants. The sample size is decided by what the researcher wants to find out, the rationale of the inquiry, and the emphasis of its usefulness and credibility. Patton (2002) emphasized that the "key issue in selecting and making decisions about the appropriate unit of analysis, is to decide what it is you want to be able to say at the end of the study" (p. 229). Scholars should begin with the end in mind.

I used three data collection tools: the close-ended demographic background questionnaire, open-ended individual experience questionnaire, and open-ended individual interview. Merriam (1998) and Mertens (1998) stated that the researcher is the instrument of data collection and analysis in a qualitative study. The researcher chooses the questions to ask and places them in order, deciding what should be observed and what notes or statements should be put in writing. Interest and curiosity are based on who the

researcher is developing the questions for in an interview (Mertens, 1998). One of the three data collection tools to be employed was the Deaf Tennis Profile Questionnaire (DTPQ), which will focus on demographic data of gender, cultural identity, communication, education, tennis experience, and background. The next data collection tool to use was the Deaf Tennis Experience Questionnaire (DTEQ), which is designed to bring out information about tennis experience and perspectives of the participants; the third data collection tool, Deaf Tennis Videophone Interview (DTVI), was used to probe more information about tennis experience and perspectives with some of the participants. Based on data to be collected from these research tools, the DTPQ, DTEQ, and the DTVI, I made an effort to enhance knowledge regarding the tennis experience of Deaf individuals. Most of the questions of the DTPQ and DTEQ have been pilot-tested. Pilot testing took place toward the end of July 2010 in the residence of some volunteers in Maryland just outside of Washington, DC. Based on that pilot test, changes have been made for a better and improved instrument. The pilot test gave me a better perspective on the type of questions to be used for both questionnaires.

### **Deaf Tennis Profile Questionnaire**

The DTPQ was developed to elicit personal background and tennis experience data (Appendix B). This questionnaire was designed to set up a general demographic profile among the participants. It consisted of 11 questions relating to gender, age of onset of Deafness, decibel loss, hearing status of family, communication mode used as a child and currently using now (e.g., ASL, oral, or both), and level of formal education completed, plus 12 questions concerning the study participant's tennis experience - a total

of 23 questions. The participants had the option of asking me for help to interpret or clarify the DTPQ during the study. The DTPQ was self-administered online.

### **Deaf Tennis Experience Questionnaire**

The second data collection tool, the DTEQ, is an in-depth, self-administrated online questionnaire designed to assess Deaf individuals' perception of tennis activities, involvement, learning usefulness, and personal enjoyment of tennis (Appendix B). It also includes the individual tennis participant's playing experience background and skill development. The DTEQ consisted of six open-ended questions in a semi structured format. The research questions were matched up with the questions from the DTEQ as stated in Appendix F.

### **Deaf Tennis Videophone Interview**

The third data collection tool, the DTVI, is an interview in a less-structured format using probes and follow up questions for further information or clarification (Appendix C). In a less structured interview, the questions may be flexibly worded or have a combination of more or less structured questions. The interview, for the most part, was headed by a list of questions to be explored, and neither the precise phrasing nor the follow-up of the questions was planned. This format permitted me to reply to each participant's view and possibly to elicit new thoughts on the concept (Merriam, 1998).

In order to gather the stories of the participants about their experiences involving the phenomenon of interest, an interview (Appendix C) was used to collect information as much as possible from the participant's experiences. After the interview, I reviewed and built a story from the participant's statements. The interview draft was sent back to the participant to read and inquire if he or she had anything to correct or add to his or her

story. Afterwards, I reviewed and adjusted as necessary the information gathered from each participant. I entered the completed stories in the Appendix and discussed them in Chapter 4. The basis for data analysis was the final completed stories.

The interested participants were asked to complete both the self-administered questionnaire (DTPQ) and self-administered questionnaire (DTEQ) online, and then had one interview (DTVI) to collect further information or clarification as needed. I contacted these participants to make arrangements for a videophone conference at their convenience.

As I collected data, I kept a copy of the memo notes to help maintain objectivity. I needed to reflect on the memo notes by reorganizing my thoughts and reviewing perspectives. Keeping a journal of memo notes by writing down my thoughts and reactions helped me to stay objective to maintain that no bias has occurred.

### **Data Analysis**

The next phase was to analytically search the data collected from the stories shared with the participants, so that their experiences can be described and interpreted (Merriam, 1998). In a narrative inquiry, there are numerous ways of interpreting the same experience. The meaning of the experience as perceived from each participant is what constitutes authenticity (Patton, 2002).

I analyzed the meanings from the individual interviews by first transcribing the interviews, and then organizing each significant statement made by the participants (Creswell, 2007; Patton, 2002). I used Hatch's (2002) typological and inductive analyses

in searching for relationships, themes, and patterns within the conceptual framework and research questions. The steps for typological analysis are listed in Appendix H. Inductive analysis was done on the remaining data not suitable under typological analysis. Hatch's (2002) inductive process involves pinpointing the frames of analysis to create a master outline by discovering themes, relationships, and excerpts from data within and among elements (p.162).

Data analyses for the DTPQ were reported by tallying the basic demographic information such as cultural, educational, and playing experience. This demographic questionnaire was used to determine among the interested participants who best fits the profile of ideal participant for this study. Data collected from the DTEQ were reported in summative form, supplemented by comments relating these entireties to the interviews. The DTVI were reported in summative form. The methods of analyses used for the interview data were typological and inductive as suggested by Hatch (2002). Typological analysis was used first. Inductive analysis was applied with the remaining data that were not suitable under typological analysis. The statements made by the participants during the interview were prepared for descriptive analysis. Each interview were transcribed and analyzed using typological and inductive analyses to identify patterns of the participant's experiences (Hatch, 2002). The recorded conference interview segments were transcribed by two researchers: one research assistant and me. I have confirmed the correctness of the transcription by watching the videophone tape several times and, at the same time, reading the transcription. Then, the corrections were made.



The interpretation of data were limited to multiple methods of data analyses of the data that were collected and were not be generalized to the larger Deaf athletic community due to the small number of participants being studied. This, however, did not minimize the importance of this research and its findings.

In this process, I searched for statements from the interview regarding how individuals gain these experiences. Then I represented these statements and outlined a framework of elements or statements that were neither repetitive nor overlapping. The steps for typological analysis are in Appendix H. As I analyzed the data, more elements were added to the framework by means of inductive analysis. Inductive analysis was used to determine the underlying meaning of the data that did not fit under one or more of the typologies. The frames of analysis may change or move based on what is found in the data.

I have classified these clustered statements into meaning units, and developed a textural description of the experience. Next, I used a structural description by searching for all potential meanings and different perspectives, and then built up a description of the experiences developed by the individuals. Finally, I presented a narration on the meaning of their experiences (Creswell, 2007).

### **Summary**

In Chapter 3, the narrative inquiry design was chosen as the qualitative methodology used in this study, which included a description of participant selection, role of the researcher, procedures of data collection and analysis, as well as the ethical

considerations for carrying my research. Chapter 4 discussed the major research findings, using participants' experiences to illustrate the typologies and emerging themes.

## Chapter 4: Research Findings

### **Introduction**

The purpose of this qualitative, narrative research study was to gain an understanding of the learning experiences of Deaf individuals in tennis in the United States. It explored their perspectives on tennis, their successes, and their challenges with the game. From the individuals' descriptions, suggestive baseline information was developed to facilitate administrators, instructors, coaches, recreation professionals, athletes, and tennis enthusiasts in helping Deaf individuals find greater success in their tennis pursuits. Any of these new insights may be useful to instructors and coaches who work with Deaf individuals in sports. The overall narrative of findings is combined into a single story at the end of this chapter.

In order to answer the research questions posed, a qualitative narrative approach was used. Since the voices of the Deaf community are largely absent in the research literature, the narrative approach is designated to capture the stories of the Deaf individuals' experiences in sports, particularly in tennis. This study explored how factors such as cultural, educational, and tennis experience relate to cognitive and skill development among Deaf individuals.

### **Demographics**

The participants in this study, adult Deaf tennis players and citizens of the United States, were purposefully selected (Creswell, 2007; Patton, 2002). They were found as members of an e-group. The participants' ethnic backgrounds varied.

The major criterion for this study was Deaf individuals who had tennis playing experience, whether on a tennis team, in a tennis league, in Deaflympics, or in the Dresse and Maere Cups. Nine individuals who met the criteria volunteered. The participants consisted of five males and four females. The age of the youngest was 23 and the oldest was in her 60s.

Table 3

*Gender, current age, and ethnicity*

|        | Gender | Age range | White | Black | Hispanic |
|--------|--------|-----------|-------|-------|----------|
| Male   | 5      | 26-54     | 3     | 1     | 1        |
| Female | 4      | 23-60+    | 4     | 0     | 0        |

Table 4

*Hearing loss diagnosed*

| Hearing loss in decibels | At birth | Between 2-5 years of age |
|--------------------------|----------|--------------------------|
| Mild (16-54 dB)          | 0        | 0                        |
| Moderate (55-69 dB)      | 2        | 1                        |
| Severe (70-89 dB)        | 0        | 0                        |
| Profound (90+ dB)        | 4        | 2                        |

Table 5

*Knowledge of American Sign Language (ASL)*

| Knowledge of American Sign Language (ASL) | Number of participants |
|---|------------------------|
| Yes                                       | 7                      |
| No  | 2                      |

Table 6

*Identify yourself personally*

(more than one answer can apply per participant)

| Self identification | Number of participants |
|---------------------|------------------------|
| Deaf                | 8                      |
| Hard of Hearing     | 4                      |
| Hearing impaired    | 1                      |
| Partially deaf      | 1                      |

Table 7

*Socialize most of the time with whom*

| Socialization with | Number of participants |
|--------------------|------------------------|
|--------------------|------------------------|

|                                    |   |
|------------------------------------|---|
| Deaf                               | 1 |
| Hard of Hearing and Hearing        | 2 |
| Hearing people                     | 1 |
| Deaf, Hard of Hearing, and Hearing | 5 |

Table 8

*Education background*

| Type of school                  | K-6 <sup>th</sup> | 7 <sup>th</sup> -9 <sup>th</sup> | 10 <sup>th</sup> -12 <sup>th</sup> | College /University |
|---------------------------------|-------------------|----------------------------------|------------------------------------|---------------------|
| Residential school for the Deaf | 1                 | 2                                | 2                                  |                     |
| Oral school for the Deaf        | 1                 | 0                                | 0                                  |                     |
| Special class in public school  | 1                 | 0                                | 0                                  |                     |
| Public school                   | 4                 | 5                                | 5                                  |                     |
| Homeschooled                    | 2                 | 2                                | 2                                  |                     |
| College/University              |                   |                                  |                                    | 9                   |

Table 9

*Mode of communication*

| Communication mode | 5 - 12 years old | Current |
|--------------------|------------------|---------|
|--------------------|------------------|---------|

|                             |   |   |
|-----------------------------|---|---|
| Sign language               | 2 | 2 |
| Oral                        | 6 | 2 |
| Both sign language and oral | 1 | 4 |

Table 10

*Years playing tennis*

| Gender of participants | Year range |
|------------------------|------------|
| Male                   | 12 - 32    |
| Female                 | 14 - 21    |

Table 11

*Level of playing experience*

| Experience level                                      | Number of participants |
|---|------------------------|
| High school tennis team                               | 5                      |
| College tennis team                                   | 7                      |
| World Games for the Deaf/Deaflympics                  | 8                      |
| Dresse and Maere Cups/World Deaf Tennis Championships | 2                      |

### **Data Collection**

Creswell (2007) explained that the basic data collection in a narrative research is the procedure of collecting data from in-depth interviews with up to 10 participants. The sample size is decided by what the researcher wants to find out, the rationale of the inquiry, and the emphasis of its usefulness and credibility. Three types of data were collected. The data gathering tools used in this research were the DTPQ, DTEQ, and DTVI. The first two were self-administered online, and the third one was an interview using ASL. The statements made by the participants from the DTEQ and DTVI were placed together to bring out information about their tennis experiences and perspectives. The names and regional demographics were changed to protect the identity of participants. There were no unusual circumstances encountered in data collection.

### **Data Analysis**

Merriam (1998) and Mertens (1998) stated that the researcher is the instrument of data collection and analysis in a qualitative study. The researcher chooses the questions to ask and places them in order, deciding what should be observed and what notes or statements should be put in writing. Patton (2002) emphasized that the "key issue in selecting and making decisions about the appropriate unit of analysis, is to decide what it is you want to be able to say at the end of the study" (p. 229). Scholars should begin with the end in mind.

The Deaf Tennis Profile Questionnaire included basic demographic information of how the factors such as cultural, educational, and playing experience relate to



cognitive and skill development. Data collected from the self-administrated online Deaf Tennis Experience Questionnaire was reported in summative form. I analyzed the statements from the individual interviews by first transcribing the interviews, and then organizing the significant statements made by the participants (Creswell, 2007; Patton, 2002). I used Hatch's (2002) typological and inductive analyses in searching for relationships, themes, and patterns based on the conceptual framework and research questions. The initial typologies consisted of motivation, interaction, and flow experience, which derived from the tripartite conceptual framework. The initial codes were parallel to the six research questions, which are flow experience, exposure, learning, motivation, interaction, and suggestions for tennis instructors, leaders, and coaches.

The process of reading, reviewing, and reflecting the statements made by the participants were paramount to this study. Each interview was transcribed and retyped leaving a wide margin on both sides of the page. This procedure made it possible to write notes next to the data. If there were any discrepant cases, the reason for explaining the case would be presented. No discrepant cases were found.

### **Evidence of Trustworthiness**

Creswell (2007) emphasized that the decisive factor for assessing a qualitative study is its credibility (p. 204). Credibility is described as the point where the data, data analysis, and conclusions are authentic and trustworthy. The patterns emerging from the data need to be reliable. The statements from the data need to be precise, reliable, and significant. Additionally, the researcher must have confidence in the outcomes of the data and its conclusions (Creswell, 2007). This procedure of data analysis improves the

validity of these major findings (Creswell, 2009, p. 191). The conclusion of a narrative inquiry characteristically consists of a narrative description, which integrates information about the experience under study (Creswell, 2009; Patton, 2002).

Before starting my study, I got approval from the Walden University IRB (Appendix M). I also received an email from a facilitator of a closed e-group under Facebook. A flyer was posted in this closed e-group explaining the purpose of this research and their voluntary role in this study. I received email from 11 individuals who were interested in participating in this study. The informed consent was sent via email. Nine individuals signed the consent form. The two questionnaires were conducted online. Upon completion of both questionnaires, an interview conference was arranged at the participant's convenience. An audit trail was developed by outlining the procedures and dates in completing the questionnaires and interviews (Appendix N). I also emailed a confirmation of the individual interview date. I reminded the individuals that their participation was voluntary and they could withdraw at any time. I asked each individual for permission to tape the interview conference. While asking the questions from interview list, I concentrated carefully on their responses, asking probing questions as needed. I took notes regarding perceptions and thoughts from each participant. All nine interviews were transcribed and identified for emerging themes. The participants' transcripts were emailed to them for their approval or changes as needed. Changes were made as I constructed their stories. The revised transcripts were sent back to the participants for their final approval. Some changes were made again on some of the transcripts. After I received approval from all of the participants on their narratives, I

emailed a memo thanking them for participating in the study, and will send a report on the outcomes of this research.

While collected the data, I kept a copy of the memo notes to help maintain objectivity. I have looked through my memo notes as I reorganized my thoughts and reviewed the perspectives. Keeping a journal of memo notes by writing down my thoughts and reactions has helped me to stay objective and assure that no bias has occurred.

In order to uphold the utmost research standards, I used several strategies throughout my research study. First of all, I kept memo notes, where I wrote down my thoughts and perceptions, before, during, and after the research study process, as well as analyzing the data. I emailed the revised transcripts with the participants to ensure that I captured their stories before analyzing the data. I have used member checking throughout the research study process.

## **Results**

There has been very little research to determine the efficacy of skill development and how competition impacts Deaf participants. Snyder and Spreitzer (1978) stated that the popularity of sport allows it to “express some of the dominant values of a society” (p. 25). They emphasize that one validation for sport in academies is that it helps children prepare for the game of life. Eitzen and Sage (1982) also illustrated different institutions as social and parallel to sport, as these institutions imitate the standards, principles, and character expectations of the athletes, and spectators.

The results of this study will be used as insight by others working with Deaf individuals. Ideas gained from this study can be compared with other related experiences and used to help administrators, instructors, directors, coaches, leaders, leisure professionals, athletes, and tennis enthusiasts work more effectively with Deaf individuals who are learning to play tennis. In addition, any of these new insights gained may be useful to instructors and coaches who work with Deaf individuals in sports other than tennis.

This information will help us to examine how participation in tennis may affect the lives of Deaf individuals and their well-being. The outcomes of this study may give us ideas for developing tennis as a recreational activity among Deaf individuals and to provide data that will convince administrators and directors to include more tennis in their curricula and community programs.

When the first interview participant told her story by answering the first two questions, I added two probe questions. Then I ended up using these two similar probe questions with most of the participants. Creating themes helped capture the essence of each participant's experience in tennis. The themes were addressed in relation to the central research question and five research subquestions. Nine themes emerged from the research data (Appendix L):

1. Tennis influencing other aspects in your life
2. Affective reaction while playing tennis
3. Most memorable tennis experience

4. Learning from individuals who influenced your game
5. Improving your game
6. Underlying motivations to play tennis
7. Pursuing the tennis game
8. Importance of tennis team as a social group
9. Suggestions for tennis instructors and coaches

### **Central Research Question**

What is the role of playing tennis in the lives of Deaf individuals?

Based on both questionnaires and interview, the participants were asked several questions to explore their perceptions and experiences on the role of playing tennis in their lives. Three themes emerged as stated in Table 12, 13, and 14.

Table 12

#### *Theme 1*

| Tennis influencing other aspects in your life   |
|---|
| P1 Learning how to deal with frustrations, adversity, and tension on the tennis court have helped with real life decision-making. |
| P2 The experience I have gotten from tennis has helped me to overcome many adversities off court as well.                         |
| P3 I'm not a patient person. If want to be good I have to be disciplined in my life and that will carry over into my game.        |

|    |  |
|----|--|
| P4 | I made so many friends playing tennis and working at the club. Our tennis club was almost like church fellowship.  |
| P5 | My experiences help me through my rage and issues with hearing people. Have been through good and bad times in tennis. Learned from many players on and off the court. |
| P6 | My tennis experiences taught me that "it's not the end of the world" and I go back to try again. "Sometimes mountains conquer me, sometimes I conquer mountains."      |
| P7 | It helped me realize about individual sports. You have nobody to blame for the loss except yourself. It helped me to deal with others whether I like it or not.        |
| P8 | Through my experiences, I've gained more confidence in my actions. I learned that making a mistake won't hurt you if you try to do everything you can to fix it.       |
| P9 | Very influential because it helped me to develop self-confidence, and believe in myself as an independent individual.  |

Table 13

*Theme 2*

| Affective reaction while playing tennis |  |
|---|--|
| P1                                      | I find tennis to be both an incredibly frustrating yet rewarding sport.  |
| P2                                      | When I first started playing tennis it was very difficult for me to learn. I have reached the point in my game where it is easy to hit all shots to the point where it is relaxing and fun.                            |
| P3                                      | Sometimes it was stressful and frustrating, but that is part of tennis and as strange as it sounds, that make tennis fun, because you have to figure out how to beat your opponent when you are not having a good day. |
| P4                                      | Tennis really makes me happy and I love it! I was able to get the shots that were impossible. In the beginning I was tense but got more flexible over time.  |
| P5                                      | Tennis has helped me to escape and release tension and stress, how to accept defeat and face my fears, not think about problems. Tennis has taught me how to get through life.   |

|   |
|---|
| P6 I enjoyed playing each game, using different strategies. I enjoyed the whole process of learning the game of tennis daily.   |
| P7 I never got bored of playing tennis while I was in high school and college. I played about 4 hours a day while I was in high school. At that time, I never felt like I was burned out. |
| P8 Playing tennis gave me joy and confidence. I always loved to play the sport because it made me feel good.  |
| P9 For me, it was always enjoyable playing, constructing a point, and trying to figure a way to win or close the match. Or fight back.  |

Table 14

*Theme 3*

| Most memorable tennis experience   |
|--|
| P1 Winning the state tournament for the 18's age group as a 16 year old. Another highlight for me was representing my state in the Southern Section Davis Cup in juniors. And last, but not least, representing the United States in the Deaflympics.  |
| P2 Winning the gold medal at the World Games for the Deaf. When the match was finally over, having the gold medal placed on my neck while watching our country flags be raised was one of the most exhilarating moments I've ever experienced. I felt a strong sense of patriotism and victory. It was an incredible experience. |
| P3 During my last year in college. We lost to our biggest rival a week before the conference tournament. Then we played them again at the conference tournament. At first it looked hopeless. We were determined to win. Needed to win my match to tie. Then, our #2 singles player clinched the next match for the win.         |
| P4 Playing in a club league at the higher skill level. The club asked me to play tennis for them at the higher skill level. I then realized that my ability was equal to the higher skill level. It was an honor to play with them.  |
| P5 When I was a sophomore in college, I played doubles under Intercollegiate Tennis Association.   |

- P6 Winning the American Southwest Conference Third Flight Doubles Championship. We worked hard and worked on communication as well as our tennis. My doubles partner was hearing, so I taught him some signs. Communication was work in progress.
- P7 Playing on the university women's tennis team. The girls on the team were from different countries besides USA. We had a team bond. Ended up winning 7-5 to help my team place 3rd of 7 University teams at the tournament.
- P8 When I won the Maere Cup and my journey and participation in the Deaflympics. First of all, it was great experience to be with USA team competing for the Maere Cup for fifth time. I was the first to win the Maere Cup; it was a surprising and thrilling experience. I learned how to communicate with players from different countries/languages.
- P9 Playing a men's doubles match and down a set and double match point against my serving. Then my partner didn't put away an easy shot, but the other player made an error as well. The next point I served an ace and we won that game. We eventually went on to win that match. It completely made a believer out of me that comebacks are possible.

## Subquestions 1 and 2

How do Deaf individuals become exposed to tennis?

What are the learning opportunities for Deaf individuals in tennis?

Since the answers overlap under Subquestions 1 and 2, the responses to these questions will be discussed together. Based on both questionnaires, the participants were asked several questions to explore their perspectives and experiences on how they become exposed and learned the game of tennis. Two themes emerged as stated in Table 20 and 21.

Table 15

*Age when first learned to play tennis*



| Gender of participants | Age range |
|------------------------|-----------|
| Men                    | 5 - 9     |
| Women                  | 2 - 14    |

Table 16

*Individuals influencing your interest in tennis*

(more than one answer can apply per participant)

| Influenced by          | Number of participants |
|------------------------|------------------------|
| Mother                 | 3                      |
| Father                 | 5                      |
| Siblings               | 4                      |
| Coach                  | 7                      |
| Friend                 | 5                      |
| Self                   | 1                      |
| College tennis players | 2                      |
| Tennis pro             | 1                      |

Table 17

*Finding out about Deaflympics*

| Facility or person | Number of participants |
|--------------------|------------------------|
|--------------------|------------------------|

|                    |   |
|--------------------|---|
| Deaf school        | 1 |
| College/university | 3 |
| Family             | 1 |
| Friend             | 4 |

Table 18

*Tennis offered as an activity at school*

| School level                 | Number of participants |
|------------------------------|------------------------|
| Elementary or grade school   | 0                      |
| Junior high or middle school | 2                      |
| High school                  | 6                      |

Table 19

*Learning the game from whom or where*

| Facility or person   | Number of participants |
|--|------------------------|
| State or private school for the Deaf                             | 2                      |
| Public school physical education program or after school program | 2                      |
| College or university  | 4                      |
| Camp   | 2                      |

|                 |   |
|-----------------|---|
| Family          | 5 |
| Friend          | 6 |
| Private lessons | 5 |
| Group lessons   | 4 |

Table 20

*Theme 4*

| Learning from individuals who influenced your game  |
|---|
| P1 Life lessons such as dedication, commitment, character, determination, etc., tennis fundamentals, and communication.   |
| P2 Mom encouraged me to show up and overcome difficult situations. Dad pushed me to work hard and be disciplined. I learned from my brother on goal setting and positive self-talk.   |
| P3 My parents and siblings taught me that tennis is fun, I think we forget, especially when we get older, and that tennis is a game, not work. My coach taught me that if I want to be good I have to work hard and remember my goals.  |
| P4 From Dad I learned patience and how to stop lobbing the balls over the chain-link fence. My friend helped me with my toss of the ball when serving. She said I do not have to accept a bad toss. My coach taught me to anticipate early, swing racket back, and get in ready position.   |
| P5 USTA coach taught me different techniques and he had a lot of patience to help me on the court. He used different strategies to help me through mental on and off the court.   |
| P6 I learned from college coach the most as she taught tennis strategies and techniques via ASL. She had the best body language when communicating and demonstrating tennis. Initially, I did not have anyone to teach me, I had to buy my own racket and just learned by hitting a tennis ball against the dorm wall by myself again and again. I learned more about tennis from watching Chris Evert on TV. |
| P7 My friends made me very competitive. Father always was glad to give up his time to play tennis with me every evening. Coach had much patience with me and my   |

|   |
|---|
| friend every day after school.  |
| P8 We often watched tennis matches on television and shared our thoughts about the matches. We learned from the mistakes.   |
| P9 My friend told me that tennis is not as easy as it looks. I learned from a college player that you can be as good as you want to be if you practice just as hard. A professional player advised me to copy the form of others and then developed my own style, and added ways to be more aggressive. |

Table 21

*Theme 5*

| Improving your game   |
|---|
| P1 I played many matches every week; took tennis lessons; played tennis tournaments   |
| P2 I watch the best players and imitate them; weightlifting; hit a lot of balls   |
| P3 When I was 12, I worked with my siblings, and I did a lot of drills that involved me keeping the ball in X amount of times, or keeping the ball past the service line X amount of time, and any time I missed I would have to do 10 push-ups. I ran a lot, distance and sprints. When I was older I focused more on footwork, losing weight by eating right, and working out to gain muscle. |
| P4 I joined tennis club and took group lessons with USTA group. But coach demonstrated how NOT to do and I copied how NOT to do because I did not hear his instructions. I just copied what he did. I tried to explain to him and he did not understand so I just tried to copy other player in drills.   |
| P5 I worked on one backhand and forehand on corner of the angle. I used cones to help me to hit where I want to hit. I didn't have any help from someone who can feed me ball. I just learned on my own. I watch the film and learn from tennis pro.  |
| P6 I studied players by watching what they do. My favorite part is the slice which is trapping the ball. I served very hard and had many aces. I improved best by teaching myself.  |
| P7 In the past, I did not practice my serves. I just warmed up hitting the balls for a while, and then played the matches. Later I realized that I needed to improve my serve. I practiced one hundred serves everyday - flat, slice, and topspin. At the college, I learned how to hit topspin. I loved it.  |
| P8 Like they say, "Practice makes perfect."   |

P9 I watched any tennis game shown on TV or live. Talked with skilled players about their strategies. I read tennis magazines, and tried to play or practice by hitting as much as possible. Once my skill started to improve, it only drove me to play more. I kept hitting the ball and see how much better I could be or developed a new better skill.

### Sub Question 3

What are the underlying motivations for Deaf participants' engagement in tennis?

Based on the second questionnaire and interview, the participants were asked several questions to explore their perceptions and experiences on the underlying motivations in their engagement in tennis. Four male and four female participants have played on a hearing team. Five male and three female participants have played on a Deaf tennis team. Two themes emerged as stated in Table 22 and 23.

Table 22

#### *Theme 6*

| Underlying motivations to play tennis   |
|---|
| P1 A desire to be great at something  |
| P2 At first I played to make everyone happy, and then I got better and played because I enjoyed winning, trophies and recognition. Now I can play with such ease and confidence that it is so relaxing and enjoyable and great exercise. I also now realize how blessed I am to play so I play to glorify God every way possible. |
| P3 My siblings started playing tennis before me, and I wanted to do everything they did, so when I started I remembered I loved playing and I wanted to keep playing. So I was motivated because I loved playing, and also I didn't have to worry about hearing anything, I could just go out and play.                           |
| P4 I liked hitting ball back and forth again and again. Just keep the ball in play.   |

|   |
|---|
| People told me that I am good at poaching from one side to another side near the net. They did not expect it cuz of my poker face.  |
| P5 I used to play tennis every day and I used the garage door to hit the ball every night before I go to bed. I loved to play tennis and find a way to help me mentally. I always watch sports on TV to help me get motivated or visualized how I will win. |
| P6 I quickly became motivated because I was the champion and continued winning 4 years in a row. I met a Deaf friend who told me about the Deaf college tennis team.  |
| P7 Friend, father, and my coach motivated me to play tennis. I fell in love with tennis.  |
| P8 I liked the challenge of the game and I enjoyed the strategies that came with it.  |
| P9 I had assumed it was a sissy sport and could be easily played – until I actually played it myself and realized differently. That got me hooked and determined to become skilled and proficient at this sport.  |

Table 23

*Theme 7*

| Pursuing the tennis game  |
|---|
| P1 Winning the state tournament for the 18's age group as a 16 year old. I think that was the turning point in my understanding of how to construct points, as well as learning what it meant to be determined on a high level.   |
| P2 The turning point came when I got to high school I devoted most of my time training for tennis. My family and I all thought the possibilities for me to excel were great as a tennis player.   |
| P3 My parents got my older siblings involved in tennis and other sports. I wanted to do everything my siblings did, so once I was coordinated enough, I got involved with tennis and found that I loved playing tennis. I found tennis more relaxed.                                |
| P4 I met a friend who encouraged me to play tennis with her at the tennis club. I started to work at the club cleaning and doing odd jobs. Then I was able to play for free at the club. I became addicted to the game as I want to play tennis morning and night. I was in my 30s. |
| P5 I like to win. The more I play, the better I got. Continued to play and win! I enjoyed it!   |

P8 I disliked being a team player so I looked for an individual sport that I could play. One of my friends asked me to play tennis. At first, I didn't understand the rules because I attended an all-hearing school. I eventually learned more about it and fell in love with tennis. Also made me very aggressive. As I played every day, my skills greatly improved.

P9 My own personal thought that tennis was an easy game and that anyone could hit a ball over the net until I tried and failed. From that point on, I was determined to be as good like I thought the game should be played. Then, I fell in love with tennis and have stayed with this game.

#### Sub Question 4

How does tennis competition impact Deaf participants?

Based on both questionnaires, the participants were asked several questions to explore their perceptions and experiences on how the tennis competition itself has impact on them. One theme emerged as stated in Table 24.

Table 24

#### *Theme 8*

##### Importance of tennis team as a social group

P1 Tennis is a lonely sport, so socializing with other members on the team (in college) helped me to develop trust and camaraderie among the players.

P2 Playing on a team allowed me to learn how to communicate with others and build relationships and use my talents to win as a team. It is more satisfying being a part of a team and winning. I didn't learn this though until later in life.

P3 Because I was home schooled I didn't have a lot of friends, so tennis was my social time. Especially in college, my team was the only people I was close to. However it was still hard for me to be close to them because I couldn't hear as well as they could, and I felt ignored a lot, but they were important to me because we did a lot together and I could relate to them in tennis and school.

P4 The social group was important for me to have group lessons, fun to cheer for my team. Everyone I played with learned to sign the score and other basic signs for tennis. I played better at our own club. When my Deaf friend, Mary joined the club and team, many players took sign language classes and it was more fun.

P5 I was not social with everyone in high school due to the communication barrier. I had a hard time understanding everyone and it was not easy for me to understand during group talk. In college, I started to get involved with the group and now we have a tight bond. We invented some gestures or made up signs. Most of the time we provoke or kid each other.

P6 I love the team spirit and being part of my college tennis team. The best part was having international players on our team. Following our wins or losses, we had fun chatting in ASL on the way to nice restaurants during away games before announcing our successes upon arrival at Gallaudet. It was thrilling, super adrenaline rush!

P7 I always enjoyed being with my tennis team. We always had fun on the road trips. We shared funny stories when we ate out at the restaurants. One player often farted in the van. It smelled so bad. He laughed about it. We laughed so hard.

P8 I enjoyed creating new relationships with my team members. As a group we helped and cared for each other on and off the court.

P9 While I did not have the enjoyment of social tennis due to deafness, it was important enough that I knew it could be a point of enjoyment with others whom I could communicate or socialize with. I could be a confidence booster. I was also a motivator for others when they see and feel the energy that I produced when playing or encouraging.

### Subquestion 5

What suggestions do the participants have for tennis instructors and coaches who work with Deaf individuals?

The last question allowed the participants to make suggestions for tennis instructors and coaches in improving the learning process among Deaf individuals in the game of tennis. Table 25 presents their responses.

Table 25



*Theme 9*

Suggestions for tennis instructors and coaches

P1 Be very patient. Look at the individual when speaking. And try to communicate no further than 5 feet away.

P2 There were a lot of incidents where I had no clue what my coach wanted from me, because I couldn't hear. I think the most important thing is learning to walk up to them and tell them or show them what to do. And it's very important to be patient and don't rush them.

P3 Just make them hit many balls. Many! Many! Be sure to include form and technique as part of that practice of hitting balls. They would need to let their body react instead of thinking to react, thus the need to hit many balls.

P4 ASL is crucial. If no interpreter, the coach MUST be clear when demonstrating which is the right or wrong way. If the coach is not willing to be patient, he/she must understand that I need my team players to shove me into the place he/she wants me to be. Don't hit the ball back to me if my side hit the ball out, sign "out" and hold onto the ball.

P5 My suggestion is for tennis instructors or coaches who need to take ASL classes and hopeful they can communicate more with Deaf players. Also, they need to know Deaf culture and their background. Some players come from different background and limited experience in tennis.

P6 Not many hearing instructors or coaches are willing to make sufficient changes needed for Deaf players. Hearing culture comes with their hearing attitudes and it is impossible to change their ways. I would insist that tennis instructors or coaches hire ASL interpreters while they work with Deaf tennis players.

P7 They should make it fun and make them eager to play. Don't give them much pressure. Be patient and face them when explaining or demonstrating. Learn sign language!!!

P8 Deaf players are the same as hearing players, maybe even better because one of their senses is gone, therefore enhancing their vision.

P9 Also, playing points or making practice challenging would be encouraging for the Deaf individual. Also, adding some fun every now and then. The coach needs to encourage much practice, as the development of this sport has to come from the individuals themselves.

The last interview question was designed to offer the participants the chance to add any comments in any of the areas addressed in this study. This is also an opportunity for the participants to include thoughts that may be missing from this study, as presented in Table 26.

Table 26

*Anything else to add to the study*

| Additions to the study  |
|---|
| <p>P1 Having coached college tennis for over 3 years now, I think it's important that players understand the value of determination and excellence, regardless of whether they are deaf or hearing. Many values in tennis can apply to real life and real life decision making</p>  |
| <p>P2 I have met so many awesome people through tennis and have enjoyed traveling throughout the US and abroad playing and coaching. The World Games for the Deaf and everyone involved have been an incredible blessing to me and I am so grateful for all who dedicated their time and talent to sharing the sport of tennis with the upcoming generations.</p>                             |
| <p>P4 I had a Deaf friend with a tunnel vision, Ushers Syndrome, who wanted to watch us play tennis. She could see only a narrow area so I needed to hit into her line of vision so she could return the ball. It was exciting to see my Deaf friend get excited about the game. She got to feel the tennis ball and racket. We walked her through to hit and bounce the tennis ball.</p>     |
| <p>P5 Deaf individuals can't afford private lessons, equipment, or going to tennis camps. It is hard on Deaf players. There is huge communication problem in tennis with the Deaf. Communication and money is a stumbling block in tennis for the Deaf. I remember in the past that there were more Deaf involved in tennis, but now it seems that the number has dwindled significantly.</p> |
| <p>P6 I have always been on the fence between the hearing and Deaf worlds. I learned how to deal and manage, but some people don't know how to handle it. They want to give up because they lack the self-esteem or the confidence that it takes. Maybe they don't have support from other people or from other teams. This seems to have a big effect in the Deaf community.</p>             |

P7 Tennis was my first sport at the Deaf school. I became really interested in tennis and wanted to play longer. Playing tennis for the university women's team and competing in the Deaflympics was a challenge. Afterwards I played on the hearing tennis team in the USTA league. Then I hurt my right shoulder – had to stop playing tennis but still enjoy watching the game.

P8 I wish many more Deaf schools would have tennis teams. If so, more Deaf players from Deaf schools would be on the tennis team at Deaflympics. I guess about 3 Deaf schools in the USA have a tennis team. I think there should be more camps for Deaf people to get involved in sports. I also think that there should be more lessons for Deaf players.

P9 While I had a late start in tennis and because of my own negative attitude towards it. I was not aware that there was an Olympic sport for Deaf individuals. In fact, had I known that there was serious competition among Deaf individuals; I would have gotten involved much sooner instead of in my late thirties.

### **Overall Narrative of Findings**

Creating themes helped capture the essence of each participant's experience in tennis. The emerging themes were addressed in relation to the central research question and five research sub questions. The research questions in this narrative inquiry were shaped to probe into aspects of the tripartite conceptual framework which involved flow experience, motivation, and interaction. These defining characteristics were used to explore the Deaf individual's experience in tennis. The following overall narrative combines all these aspects into a single story. The participants' quotations are tied to the themes.

Tennis has helped me to build my self-esteem, confidence, and made a believer in myself as a self-determining individual. Dealing with frustration, stress, and adversity on and off the tennis court has helped me “with real life decision-making.” I have learned through tennis that "it's not the end of the world." I have often been stuck “on the fence

between the hearing and Deaf worlds.” “Sometimes mountains conquer me, sometimes I conquer mountains.” Tennis is an individual sport, so you have no one to blame but yourself. I made friends through tennis. I have met many awesome people through tennis. I have enjoyed playing tennis while traveling in USA and abroad especially at the Deaflympics. I am “grateful for all who dedicated their time and talent in sharing the sport of tennis with the upcoming generations.” “Many values in tennis can apply to real life” and “life decision making.” “It is important that the players understand the value of determination and excellence,” regardless if “they are Deaf or hearing.”

“I find tennis to be both an incredibly frustrating yet rewarding sport.” At first, it was “difficult for me to learn.” There were times when it was “stressful and frustrating.” Yet, it is so awesome and enjoyable. You have to figure out how to beat your opponent whether you have a lousy day or not. Tennis does make me happy and I love it! I get excited when I could get the seemingly impossible shots. Tennis is an escape from problems, pressure, and stress. “I never got bored” at playing tennis and I would play for hours every day when possible. “I never felt like I was burned out.” I got joy and confidence from playing tennis. I usually felt great after playing a match. Tennis is a challenge and is like playing a fast quick game of chess on the tennis court.

At first I played tennis to make everyone happy. My family made tennis fun to play. My older brother and sister played tennis and other sports. “I wanted to do everything” my brother or sister did. “Once I was coordinated enough,” I started playing tennis and loved it. As I got better I started winning and got hooked in it. What I have learned from them is discipline, commitment, dedication, character, determination, goal

setting, and tennis fundamentals. They pushed me to work hard and to do my best.

I had friends who asked me to play tennis as well. The more I played, the more my skills improved. My friends helped me to become very competitive. Then, I became addicted to the game. We would watch tennis matches on television and learn the strategies and mistakes the players made. A friend explained that “tennis is not as easy as it looks and that you can be as good as you want to be” if you practice very hard.

My coach, who was very patient, taught me different techniques, skills, and strategies on and off the court. I learned from my coach to anticipate and be prepared early. If I did not understand the instructor or coach I would copy other players during the drills. I had a coach who would demonstrate what not to do and I did copy exactly that - which was a mistake.

At this point, I was determined to “become skilled and proficient at this sport.” This was a desire to be great at something. I enjoyed the whole process of learning the game of tennis. I took tennis lessons, played matches and tournaments. I would “hit a lot of balls,” drills, and workouts. I did a lot of drills such as hitting the ball X of times, or hitting the ball past the service line X of times. Any time I miss “I would have to do 10 push-ups.” I ran a lot of sprints and long distance. I used orange cones to set a boundary where I wanted to hit. I learned mostly on my own. I would study other players by watching what they did. I practiced hard as much as I could especially on my serve. Like they say, “Practice makes perfect.” I would read tennis magazines and watch tennis pros on television. As I got older, “I focused more on footwork,” strength training, and staying healthy. It is hard on Deaf players as they cannot afford private lessons or tennis camps. The “stumbling block in tennis for the Deaf” is communication and money. In

the past, there were more Deaf players involved in tennis, and now the number of Deaf players has dwindled significantly.

Socializing with team members “helped me to develop trust and camaraderie among the players.” Being a member of the tennis team has helped me to communicate with others. I get the satisfaction “by being a part of a team,” which I did not realize until much later in life. “I didn’t have a lot of friends, so tennis was my social time.” I was not very social in “high school due to the communication barrier.” I had a hard time understanding others. While in college, “the only people I was close to” was my tennis team. Although, I was close with them, I still had a difficult time as I could not hear and often felt ignored. However, they were still important to me, as we did a lot of things together. I could relate to them through tennis and school. I loved the spirit of my tennis team. We “had fun on the road trips.” It was thrilling and “a super adrenaline rush!” I enjoyed being with my tennis team. As a group we helped and cared for each other on and off the court. We bonded together and worked hard on our tennis skills.

Now I play at ease with confidence. Tennis is so relaxing and enjoyable. I get a great workout out of it. Also, “I didn’t have to worry about hearing anything. I could just go out and play.” Just keep the ball in play by “hitting ball back and forth again and again.” I liked the challenge of the game. I often used the garage door as a hitting wall. I got motivated by watching tennis on television and visualizing how I would win. I was great at poaching where you move from one side to another side near the net and put the ball away quickly. “I also realized how blessed I am” that “I play to glorify God in every way possible.”

One of my most memorable tennis experiences was winning a medal at the

Deaflympics. “When the match was finally over, having the medal placed on my neck while watching our Country’s flags be raised was one of the most exhilarating moments I’ve ever experienced. I felt a strong sense of patriotism and victory.” It was an awesome experience playing on the USA Team. It was also fantastic learning how to communicate with Deaf players from different countries, languages, and cultures. Another highlight was winning the intercollegiate tennis conference championship. In the last round, my team was determined to win. “At first, it looked hopeless.” Then, we clinched the match for the win. It was an astonishing and exciting experience. We bonded together as a team. “It completely made a believer out of me that comebacks are possible.”

Yes, I do have some suggestions for tennis instructors and coaches who work with Deaf individuals. First of all, it is important to be patient. Second, it is imperative to demonstrate the skill or technique as much as possible. The Deaf players learn more when you “walk up to them” and “show them what to do.” I got confused at times when I had no clue what my coach wanted from me, as I could not hear. It would be helpful if the tennis instructors or coaches know sign language to communicate with the Deaf players. Be prepared to adapt as Deaf players come from various “backgrounds and limited experience in tennis.” I would insist that tennis instructors and coaches who don’t know sign language hire ASL interpreters while working with Deaf tennis players. Also, add techniques that make the learning of tennis fun and exciting. “Just make them hit many balls.” Make the practice challenging for the Deaf player. However, the desire of learning this sport has to come from within the individual themselves.

## Summary

I conducted a qualitative study based on Hatch's (2002) narrative inquiry to learn about the experiences of Deaf individuals in tennis. I analyzed the participants' narratives using Hatch's typological and inductive analyses. The questionnaires and interviews provided invaluable insight on the experiences the Deaf individuals had in tennis. Member checking was used during the research procedure. This gave me the opportunity to create a rich description of the participants' experiences in tennis.

The research findings in Chapter 4 from the participants' experiences were used to illustrate the typologies and emerging themes. The typologies from the literature review were noted. The initial typologies consisted of motivation, interaction, and flow experience, which derived from the tripartite conceptual framework. The initial codes were parallel to the six research questions, which are flow experience, exposure, learning, motivation, interaction, and suggestions for tennis instructors, leaders, and coaches. Nine themes were developed from the nine participants' experiences in tennis.

Tennis helped the study participants with their lives by building self-confidence, teaching them to deal with set-backs, and to overcome adversities. The participants' tennis experiences have shown them how to work hard in reaching their goals and that life is about serving others. The individuals who have influenced the participants' interest in playing tennis are parents, siblings, friends, tennis instructors, and coaches. Once the participants find out that tennis is fun, they continue to learn the game as much as they can such as anticipating early, developing readiness, studying other players' moves, practicing hard, mounting strategies, increasing positive thinking, and learning



from mistakes. The participants learned the tennis fundamentals and techniques to improve their game. When the participants discover their competence in tennis, they get excited and wanted to perservere in this game, desire achievement, build confidence, get recognition, increase self-determination, and visualize winning. They enjoy the game that they could play for hours. Through tennis competititon, the participants made friends, developed a sense of belonging, and received support. They find it easier to communicate and socialize with others through playing tennis. The suggestions the participants have for tennis instructors and coaches are: be patient, demonstrate the skill or technique, keep eye contact, use visual aids, make tennis fun and interesting. Teaching or coaching tennis in sign language would be helpful.

These findings are analyzed and interpreted in Chapter 5; recommendations are made for further study and the conclusions are explained.

## Chapter 5: Conclusions and Recommendations

### Introduction

Given the minimal amount of recent research focused on Deaf athletes, particularly tennis players, my goal was to establish suggestive data and information upon which educational interventions could be based. This study was conducted to explore Deaf individuals' perspectives on tennis, their successes and challenges with the game, and how they learned to play. This narrative research was built on a tripartite conceptual framework that consists of three contextual lenses: motivation (Deci & Ryan, 1985), interaction as a symbol (Blumer, 1969), and the flow experience (Csikszentmihalyi, 1997). These defining characteristics used to explore the Deaf individual's experience in tennis. The motivation lens involved self-determination, effort, challenge, and curiosity (Deci & Ryan, 1985). Additionally, meaning, language, and thought were integrated through interaction as important factors in the motivation process (Blumer, 1969; Denzin & Lincoln, 2011; Patton, 2002). The flow experience lens was defined by anxiety, apathy, arousal, control, and relaxation that were experienced by Deaf individuals in sports events (Csikszentmihalyi, 1997). Nine Deaf adults who are citizens of the United States participated in this study. Data was collected through three gathering tools, the close-ended demographic background questionnaire (DTPQ), open-ended individual experience questionnaire (DTEQ), and open-ended individual interview (DTVI). The information and statements provided by the participants were analyzed. Emphasis was on understanding, remembering, and retelling the stories as expressed by Deaf individuals and their experiences.

Chapter 5 presents this narrative research in ways which may be helpful to teachers, coaches, leaders, recreation professionals, and administrators in developing plans or programs that support the unique needs of Deaf individuals in learning the game of tennis. This chapter offers recommendations for implementing the learning techniques that meet the needs of Deaf individuals and others who may benefit as well.

### **Interpretation of the Findings**

The experiences of the Deaf participants were described. When reviewing their inquiries there were some noticeable commonalities among the participants' statements and few differences. In the tradition of narrative research, I have compiled the participants' statements without the quotes in the format of a narrative story. In doing so I have provided a written account of how tennis has positively impacted my participants' lives. The participants' statements were true experiences that each one of them shared with me. Imagine putting yourself in the sneakers of a Deaf tennis player as you read the narrative story below.

#### **Narrative Story**

I loved playing tennis with all individuals who wanted to hit the ball with me. It gave me a sense of accomplishment and self-confidence. I enjoyed watching the movements and body language of those I played with, as in doubles, and my opponents, as in singles. Since I could not freely communicate with hearing individuals, I relied on body language of others as a barometer of how I was doing. Many times I witnessed my opponents' frustration of being outplayed by a Deaf individual and at the same time, happiness for me at my success. I wanted to please people and give them joy. In addition,

I wanted approval from others for my abilities and efforts to overcome obstacles and play well, in spite of my inability to hear. Tennis was one of the avenues I used to do this. I felt I was representing Deaf people, when I was playing with and against the hearing. As I watched others play tennis, I felt I would have to work harder at being successful in the game, so other individuals would want to challenge me or want to be my doubles partner. Some of the benefits to my dedication of tennis came when I was invited to play in hearing leagues and invited to play at exclusive sport clubs and opportunities to participate in tennis camps. All of this gave me exposure to play different individuals, on different court surfaces, while developing skill, strategy, and game experience. All of my competition was with hearing people, until I was selected to be on the USA Deaf Tennis Team to compete against Deaf tennis players from other countries. It was only then, for the first time, I practiced with Deaf teammates. It was only at the elite level of tennis; I was given the honor of representing the United States and competed against other Deaf players, in formal competition, at the Deaflympics and World Deaf Tennis Championships. I competed against Deaf players from all over the world. This was a wonderful experience for me. All my many hours of practice and competition had benefited me beyond words. Now, I was finally competing with individuals to whom I could communicate with using American and international sign language. I was competing with individuals who had the same disadvantage as me, namely deafness. Participation in my first Deaflympics became a turning point in my life. It was then I realized that I wanted more Deaf individuals to have access to tennis programs in the United States. I wanted to help other Deaf individuals in their pursuit of this game and to realize that they could aspire to high levels in tennis with dedication and hard work. I

have had the opportunity to facilitate and instill in Deaf individuals, self-worth, determination, value, how to overcome obstacles and challenges, goal setting, to never give up, to strive for excellence and to enjoy the journey on the way to success. These are all lessons I gleaned from being involved with tennis and have been applied in my life, building my character and who I am. I thank God for giving me my strength and abilities. I thank Him for giving me the opportunity, through sport, to help me instill in other Deaf individuals that we are not at a disadvantage after all. Instead, we are able to rise and face obstacles, overcome challenges, and to lead a successful and productive life!

The participants' statements as indicated in Chapter 4 were addressed in relation to the conceptual framework, central research question and five subquestions.

### **Central Research Question**

What is the role of playing tennis in the lives of Deaf individuals?

First of all, the participants love the game of tennis so much so that they can play for endless hours. Secondly, they enjoy the challenge of the game of tennis, the skill it takes to play, and the strength and stamina that the game requires. Thirdly, tennis has become a way to relieve the daily tensions they are faced with. When they are on the court they are able to forget about everything other than making their next shot.

When asked to recount their most memorable experience, which involved the game of tennis, the answer was unanimous among the participants. Each participant's most memorable experience was being invited to play tennis at the highest level for his or her skill level and winning a major competition, which had some sort of standing value.

For instance, one participant was invited to play up in age at his state's tennis tournament and then he was selected to play at the Junior Davis Cup (both hearing-level tournaments). After winning these tournaments the participant was asked to represent the United States of America at the Deaflympics. Another participant reported that her most memorable tennis experience was when she was asked to play against a university team in the conference tournament qualifiers after having lost to the same team only the week before during conference play. As seeded as an underdog on the team, this participant went to win her matches after coming from behind and brought her university team to a victory, earning them a spot in the first regional tournament round. One participant remarked about his journey with tennis and how his abilities in the sport allowed him to experience many relationships all over the world, cultures, tennis camps, and training camps as he prepared to and competed in the World Deaf Games/Deaflympics. Had it not been for tennis, the young man said, his world would be very small. Seven participants have competed in the Deaflympics starting with 1977 World Games for the Deaf held in Bucharest, Romania through the recent 2013 Deaflympics held in Sofia, Bulgaria. Two participants have competed in the Dresse and Maere Cups. One participant has played in the Maere Cup five times.

### **Subquestion 1**

How do Deaf individuals become exposed to tennis?

Based on the results of this study the majority of participants were exposed to tennis by family, friends, and through private lessons. There were very few differences among the participants' statements. A remarkable difference; however, was how the

participants were introduced to the game. Each participant had a different avenue of introduction. One participant was asked to play by a volleyball coach in high school. Another participant followed in the footsteps of her hearing siblings and wanted to try the game for herself. Another participant began to play recreationally with his neighborhood hearing friends. Yet another was given formal training by his parents. Three out of the nine participants interviewed expressed tension in the form of nervousness when they recounted their first exposures to the game of tennis. All three participants had a difficult time grasping the game because they had a hard time understanding their hearing instructors, whether hearing physical education teachers, hearing friends, or hearing tennis instructors. All three participants were also intimidated by their hearing opponents. As they began to master the game, the feelings of nervousness turned into confidence and enjoyment for all three of the participants. Furthermore, the majority of the participants were also influenced by family, friends, and coaches to pursue the game of tennis.

## **Subquestion 2**

What are the learning opportunities for Deaf individuals in tennis?

There was an overlap of similar statements made by the participants in both sub questions 1 and 2. However, four out of nine participants reported having learned at least one life lesson, which included but were not limited to dedication, commitment, discipline, patience, and acceptance. As in life, these life lessons are paramount to the tennis learning process. Two of the nine participants reported that they learned best by watching others playing tennis during matches and by participating in programs where

tennis instruction was delivered using ASL as the form of communication. One participant explained her experience taking a tennis class at public school. When I was in junior high, I had a teacher who wanted the whole P.E. class to learn to play tennis. I was so frustrated because I was the only one who could not understand the directions for the game. Fortunately, I was able to figure it out quickly by watching my friends' body language and movement on the tennis court. Once I knew how, I started to enjoy it. As I grew older, I often was intimidated by hearing opponents while at the same time being frustrated that I couldn't find hearing people who were willing to play with me.

### **Subquestion 3**

What are the underlying motivations for Deaf participants' engagement in tennis?

The participants' motivations for playing tennis were determined by the results from the second questionnaire and interview. The participants shared their reasons for taking up tennis. The reasons they had for taking up tennis included: (a) showing interest in the game, (b) having friends or family members who play tennis, (c)...finding something to be good at. One participant expressed tension in the form of excitement when a Deaf friend who has a tunnel vision came to her tennis match. She recounted how her coach took her friend aside and showed her the body motions involved in holding a racket, hitting the ball, and the foot movements on the court. Her friend was able to transfer what she was shown and feel the game as the ball was hit from one opponent to another. The tension this participant felt was watching the reaction on her friend's face while she was facing her opponent. This response motivated her to continue to play aggressively and competitively. One of the nine participants reported that his



motivation for playing tennis is sparked by the challenge of the game and engagement in the strategies that are needed to master it. One participant said that she did not have to worry about hearing anything as she could just go out and play.

#### **Subquestion 4**

How does tennis competition impact Deaf participants?

One male participant reported never having played on a hearing team. One female participant reported never having played on a Deaf team. One participant expressed frustration that not enough tennis players in his community, both hearing and Deaf, understand the value of determination and excellence. He feels that if they could understand this on the court, then the players could transfer what they have learned to into a skill that they can apply to real life decision-making. Another participant finds frustration with the lack of Deaf schools that offer tennis programs. This participant feels that if more Deaf individuals were introduced to the game of tennis, then there would be more competitors representing the United States of America in the Deaflympics. One participant expressed disappointment as he recounted two difficulties with the sport of tennis. First, he said that as a young man of color he cannot find many friends in his community that have been exposed to the game of tennis because they cannot afford to play the game and there are no free public facilities in his area. He states that tennis is predominantly a “white sport,” and therefore there is not much available for the minority races, especially if they are deaf or hard of hearing. He also expressed the frustration of the costliness of playing tennis. He would have liked to have had formal coaching outside of university play, but unfortunately private lessons and court time was too

expensive for his family. Three out of the nine participants described frustration in sports as Deaf tennis players. One participant expressed his frustration by explaining that it is difficult finding hearing opponents who are willing to play with him because of the communication barrier Deaf versus hearing. For this participant the tennis community is as isolated as his Deaf community.

### **Subquestion 5**

What suggestions do the participants have for tennis instructors and coaches who work with Deaf individuals?

Four out of the nine participants suggested that instructors and coaches learn to communicate with ASL. Three of the nine participants suggested that instructors and coaches practice patience when teaching and coaching the game to Deaf individuals. The key is taking the time to work through the moves slowly so that the Deaf participant can master the moves. Two of the nine participants suggest that instructors and coaches should make tennis fun and not add to the pressure of the game.

Minns (2013), a Deaf tennis pro, body builder, model, and personal trainer tells his life story in his book, *Never Give Up!* Minns is the current coach of the USA Tennis Team participating in the Deaflympics and Dresse and Maere Cups. His book reflects many of the same responses that I obtained through the questions that were asked during the interview and two questionnaires of this study. Minns' book corresponds to the Deaf individuals who participated in this study. It seems that their experiences in tennis and sports coincide with Minns. The struggles, communication, and socialization aspect is

what Minns explained in his book.

### **Recommendations**

Based on the findings and conclusions, I recommend further research in the area of tennis education by expanding the participant population and by improving the exposure for the Deaf population of tennis in school settings and within the community. The majority of the participants were only exposed to tennis in school during their high school years. There were virtually no programs offered to the participants in their formative years. Introducing tennis programs early on in physical education curriculum and by promoting early education after-school programs for Deaf students in the area of tennis will increase participation in the sport. Additionally participating in USTA leagues, tournaments, and school competition in the higher educational levels will promote the game to others as success is achieved for the participants. Aside from USTA leagues, promoting programs such as USTA Quick Start and Youth Tennis programs for Deaf students in public schools as well as initiating the same programs in Deaf schools will promote tennis exposure. Moreover, there is a need for an Adult Deaf Tennis Team National Championships and a Deaf High School Level National Championships to promote exposure for the Deaf in the sport of tennis. As championships are won by the Deaf, more leaders, role models, and advocates such as Brad Minns will rise up and stimulate the desire of the Deaf community to participate in the sport of tennis. The aim of this study is to put Deaf tennis on the map by fostering more attention, improvement, funding, and further research needs to explore issues with a larger population of Deaf individuals.

Minns (2002), who teaches tennis mostly to hearing individuals, made some suggestions on teaching Deaf individuals the game of tennis. Deaf individuals benefit by demonstration of tennis skills and strategy. On the tennis court, actions speak louder than words to the Deaf individuals, as well in other sports. In other words, use many demonstrations, which give Deaf individuals a better chance at grasping skills and strategy of the game. Knowing sign language is helpful. Other tips include being patient, asking questions to be sure they understand, and having a written outline beforehand which helps Deaf individuals know what to expect. Visual demonstration is an accepted means of teaching and learning motor or sport skills, especially for Deaf individuals (Stewart, 1991). Being sensitive to communication differences among Deaf individuals would provide more effective tennis instruction. Recognizing the different communication modes among Deaf individuals should guide tennis instructors and coaches as to the appropriate types of information feedback to offer.

Since the Deaf tennis players are not able to hear the ball hit by the opponents, they need to develop their readiness early to prepare their next move. This is done by anticipating the moves made by the opponents before they hit the ball. The moves include where they plant their feet, arm swing, and the core of their body. By anticipating early, the Deaf tennis players and others as well are more prepared to take the next shot. In addition, the tennis instructor or coach needs to be creative on how he or she would teach an individual from another country who does not speak English, when demonstrating a skill to a Deaf individual.

Further research is needed on demonstrating approaches, efficacy skill development, learning procedures, visual training of movements, motivation techniques, inclusion, and effective communication. Likewise, research is needed for a larger Deaf population, not only in the United States, but in other countries as well. In addition, other avenues such as availability and access of programs for Deaf individuals need to be explored. There is a need to do research on a broader sample by locating programs in the United States that offer these sport-based programs as part of their curriculum. By investigating programs offered, researchers could help identify where more access to sport is needed. Most of the participants in my study mentioned that there was lack of availability, exposure, and opportunity to become regularly involved in tennis. It would then be advantageous to investigate if the lack of programs in Deaf schools had an impact on this.

### **Reflection**

Here is how I would respond to this interview question as the other participants have on what was my most memorable experience in the game of tennis. It was the final match point of women's doubles for USA at the 1981 Deaflympics held in Cologne, Germany. My doubles partner was serving and I was at the net prepared to get the next shot returned by the opposing player team player. Both of us had confidence in her next serve. We knew the exact placement of her serve and how the opposing team player would return the shot. We knew that I planned to poach along the net to get the ball back over the net. We were relaxed and yet we could feel our hearts beating. We were trying so hard not to get too excited. My doubles partner served the ball. I anticipated the next

move made by the opposing player. Then, suddenly, I poached along the net and put the ball away to capture the gold medal for USA. We jumped endlessly with joy and tears. It was one of the greatest feelings I have ever had in my entire life. Nothing could replace this ultimate feeling of accomplishment. For anyone to understand what this moment was like, they needed to be there experiencing it.

This was competition within a unique Deaf culture to which we belong and are proud of, one in which is able to communicate freely and understand each other. We trained together for only three weeks prior to this special event, and this was the first time we played together in the women's doubles competition. Together we brought our tennis game to the gold medal level.

### **Implication for Social Change**

Insights from these Deaf tennis participants should give administrators, physical education teachers, coaches, and recreation professionals a better understanding on the more effective ways to provide tennis instruction and skills. This narrative research consisted of three contextual lenses: motivation, interaction as a symbol, and flow experience. These defining characteristics were used to explore the Deaf individual's experience in tennis, and how they can be incorporated in tennis training for Deaf individuals. Self-confident, skillful tennis players, both Deaf and hearing, will be better contributors to society as a whole. Participation in sports enhances ones' confidence, self-worth, self-image, and interaction skills. These contributing factors derived from leisure and sport, carry over to our society, thus positively impacting social change. The results of this study may be published in both scholarly journals and professional sports

magazines. Individuals learning from and acting on my recommendations will create change.

### **Conclusion**

Research has yet to tap into the vast richness of Deaf sport. Most of the existing literature on Deaf sport is old and is focused either on educational and social aspects influencing Deaf athletes' participation in sport (Pinella, 1980; Stewart, 1986) or on articles written to educate the public about Deaf sport (Ammons, 1990; Ammons & Eickman, 2011; Brain, 1990; Minter, 1989; Stewart & Ammons, 1994).

The results of this study indicated that the Deaf individuals were motivated to play tennis, even with the limited opportunities they had in learning the game of tennis. Learning the game of tennis was relevant to their lives. As individuals evidenced improvements in their tennis abilities, motivation, and positive changes in self-perceptions occurred. This narrative inquiry study identified various aspects of the Deaf individuals' experiences in tennis. The questionnaires and interviews were used to gather information about Deaf individuals' perspectives on tennis, their successes, challenges with the game, and how they learned to play.

As I have journeyed through the many hours of working on my dissertation, reading, investigating, and comparing, I have come to a greater understanding of the innermost desires and the very essence of the Deaf individual. There is a common desire among all individuals to express themselves and to have a sense of self worth and value in our society. The Deaf individual must have a belief in him or her self, experience

success, and accomplishment, and establish goals for the future. I have gleaned through my study that many Deaf individuals use the avenue of sport to express themselves, to gain self worth, strength, accomplishment, perseverance, and the attitude of “never to give up.” This study has helped me to gain a greater insight into really how important sport is in building wellness, and wholeness of the total body, physically, mentally, and emotionally.

As a direct result of my findings and conclusions, individuals such as teachers, coaches, recreation professionals, and others, will be able to use sport as a possible avenue to inspire self worth and accomplishment in the Deaf individual. Especially in this society of heightened competition among all people and fewer jobs available, the Deaf individual is in greater need of self worth and value instilled in him or her at an early age. Through the introduction of sport, the Deaf individuals, will greatly benefit, as they become successful and productive members of our society.

It has been enlightening to discover that after my researching, interviewing, and data collecting, that there are some commonalities in what other researchers have found. It can be said, that once motivation is in place and goals are set, then through flow, enjoyment of life and using the avenue of sport the Deaf individual, can and does find meaning and purpose for existence. Motivation is the key to all learning and it is with that motivational desire, nothing is unattainable. I have witnessed that this is true for the Deaf individual. The motivation to be successful and to blend into society without being labeled, as “having a disadvantage,” is very important. The building blocks for character are strength and integrity, which can be accomplished through sport for many Deaf



individuals is the key in overcoming and becoming a productive and acceptable member of society.

What is more exciting is that the USA Deaf Tennis, an organization of the USA Deaf Sports Federation (USADSF), is hosting the Dresse and Maere Cups for the third time in 2014. The Deaf International Tennis Cups will be held at the Champions Club Tennis Center in Chattanooga, Tennessee from July 14-19, 2014. Deaf tennis players representing different countries will compete and gain experience playing the game at the international level. The mission of the games is to increase public awareness of tennis for Deaf individuals, provide the spectators an opportunity to watch the international Deaf tennis in action, facilitate sportsmanship, and a respect for diverse individual cultures. Those tennis players, who have the opportunity to compete in the Tennis Cups, will be better prepared for the 2017 Deaflympics in Ankara, Turkey. The coaches who may profit from my study may be the very ones who are preparing Deaf participants to play in these Deaflympics and Deaf World Championships.

## References:

- Ammons, D.K. (1990). Unique identity of the World Games for the Deaf. *Palaestra*, 6(2), 40-43.
- Ammons, D.K. (2009). The International Committee on Sports for the Deaf and the Deaflympics. In D. Moores & M. Miller (Eds.) *Deaf people around the world: educational and social perspectives* (pp. 373-386). Washington, DC: Gallaudet University Press.
- Ammons, D.K., & Eickman, J., (2011). Deaflympics and the Paralympics: Eradicating misconceptions. *Sport in Society*, 14(9), 1149-1164. doi:10.1080/17430437.
- Ammons, D.K., & Miller, M. (1994). Sport, deafness and the family. In C. Erting & R. Johnson (Eds.), *The deaf way: Perspectives from the international conference on deaf culture* (pp. 542-544). Washington, DC: Gallaudet University Press.
- Atherton, M. (2007). Sport in the British deaf community. *Sport in History*, 27(2), 276-292. doi: 10.1080/17460260.
- Atherton, M. (2009). A feeling as much as a place: Leisure, deaf clubs and the British deaf community. *Leisure Studies*, 28(4), 443-454. doi: 10.1080/02614360.
- Blumer, H. (1969). *Symbolic interactionism*. Englewood Cliffs, NJ: Prentice-Hall.
- Brian, J. (1990). Potential impact of World Games for the Deaf on the deaf community in New Zealand. *Palaestra*, 6(2), 44, 46-47.
- Butterfield, S.A. (1991). Physical education and sport for the deaf: Rethinking the least restrictive environment. *Adapted Physical Activity Quarterly*, 8(2), 95-102.

- Carmichael, R.J. (1999a, August). US Deaf Tennis Association. *Silent News*, 3(8), 40.
- Carmichael, R.J. (1999b, August). Pfaff and Dzaupasu captures gold at USDG. *Deaf Nation*. Retrieved from deafnation.com/sports/usdg99/tennis.
- Carmichael, R.J. (2000). Tennis ad hoc annual report. *Inside USADSF Annual Reports*. House of Delegates. USA Deaf Sports Federation.
- Carr, S. & Weigand, D.A., (2002). The influence of significant others on the goal orientations of youngsters in physical education. *Journal of Sport Behavior*, 25(1), 19-41.
- Carroll, C., & Mather, S.M. (1997). Champion rescuers. *Movers and Shakers*, 27-30.
- Chen, A., & Darst, P.W. (2002). Individual and situational interest: The role of gender and skill. *Contemporary Educational Psychology*, 27, 250-269.
- Chen, A., Darst, P.W. (2001). Situational interest in physical education: A function of learning task design. *Research Quarterly for Exercise and Sport*, 72, 150-164.
- Chen, S., Chen, A., & Zhu, X. (2012). Are K-12 learners motivated in physical education? A meta-analysis. *Research Quarterly for Exercise and Sport*, 83(1), 36-48.
- Chen, A., & Ennis, C.D. (2004). Goals, interests, and learning in physical education. *Journal of Educational Research*, 97, 329-338.
- Clandinin, D.J. and Connelly, F.M. (1994). Personal experience methods. In N.K. Denzin and Y.S. Lincoln (Eds.) *Handbook of qualitative research*. Thousand Oaks, CA: Sage.

- Clandinin, D.J. & Connelly, F.M. (2000). *Narrative inquiry: Experience and story in qualitative research*. San Francisco, CA: Jossey-Bass.
- Clark, J.F. & Huber, F. (1998). *Seven lifetime sports: A handbook for skill development*. Peosta, IA: Eddie Bowers Publishing, Inc.
- Clark, R.A. (1990, August 20). Anticipating what others hear. *The Washington Post*, C10.
- Clark, R.A. (1995). *Team perceptions of cohesion among deaf / non deaf culture and starter / nonstarter varsity athletes at Gallaudet University*. (Doctoral dissertation, Philadelphia: Temple University). Available from ProQuest Dissertations and Theses. (UMI No. 9535727)
- Clark, R.A. (2001). Deaf Olympics. In K. Christensen, A. Guttman, & G. Pfister (Eds). *International encyclopedia of women and sports* (pp. 120-131). New York: Macmillan Press.
- Clark, R.A., & Sachs, M. L. (1991). Challenges and opportunities in psychological skills training in deaf athletes. *The Sport Psychologist*, 5, 392-398.
- Coaching Association of Canada. (2005). Coaching athletes with a disability. *National Coaching Certification Program*. Canada: Investors Group.
- Connelly, F.M., and Clandinin, D.J. (1990). Stories of experience and narrative inquiry. *Educational Researcher*, 9(5), 2-14.

- Corbin, C.B., & McKenzie, T.L. (2008). Physical activity promotion a responsibility for both K-12 physical education and kinesiology. *Journal of Physical Education, Recreation, and Dance, 79*, 47-56.
- Cox, A., Smith, A., & Williams, L. (2008). Change in physical education motivation and physical activity behavior during middle school. *Journal of Adolescent Health, 43*, 506-512.
- Cratty, B. (1989). *Psychology in contemporary sport*. Englewoods Cliffs, NJ: Prentice Hall.
- Creswell, J. (2007). *Qualitative inquiry and research design: Choosing among five approaches*. Thousand Oaks, CA: Sage Publications, Inc.
- Creswell, J. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches*. Thousand Oaks, CA: Sage Publications, Inc.
- Csikszentmihalyi, M. (1990). *Flow: The psychology of optimal experience*. New York: Harper & Row Publishers, Inc.
- Csikszentmihalyi, M. (1997). *Finding flow: The psychology of engagement with everyday life*. Basic Books.
- Deci, E.L., & Ryan, R.M. (1985). *Intrinsic motivation and self-determination in human behavior*. New York: Plenum.
- Denzin, N. K. & Lincoln, Y. S. (1998). *The landscape of qualitative research: Theories and issues*. Thousand Oaks, CA: Sage Publications, Inc.

- Denzin, N. K. & Lincoln, Y. S. (2011). *Handbook of qualitative research*. Thousand Oaks, CA: Sage Publications, Inc.
- Duda, J. L., & Whitehead, J. (1998). Measurement of goal perspectives in the physical domain. In J. L. Duda (Ed.), *Advances in sport and exercise psychology measurement* (pp. 21-48). Morgantown, WV: Fitness Information Technology.
- Deci, E.L., & Ryan, R.M. (1985). *Intrinsic motivation and self-determination in human behavior*. New York: Plenum.
- Eccles, J.S., & Wigfield, A. (1995). In the mind of the actor: The structure of adolescents' achievement task values and expectancy-related beliefs. *Personality and Social Psychology Bulletin*, 21, 215-225.
- Edginton, C. R., Jordan, D. J., DeGraaf, D. G., & Edginton, S. R. (2000). *Leisure: Life satisfaction*. Boston: WCB/McGraw-Hill.
- Eitzen, D., & Sage, G. (1982). *Sociology of North American sport*. Dubuque, IA: Wm. C. Brown.
- Evenson, K., Ballard, K., Lee, G., Ammerman, A. (2009). Implementation of a school-based policy to increase physical activity. *Journal of School Health*, 79, 231-238.
- Flavell, J. H., Miller, P. H., and Miller, S. A. (1993). *Cognitive development*. Englewoods Cliffs, NJ: Prentice Hall.
- Ford, D.H. (1987). *Humans as self-constructing living systems: A developmental perspective on behavior and personality*. Hillsdale, NJ: Erlbaum.

- Ford, M. (1992). *Motivating humans: Goals, emotions, and personal agency beliefs*. Newbury Park, CA: Sage.
- Ford, M., & Ford, D. (1987). *Humans as self-constructing living systems: Putting the framework to work*. Hillsdale, NJ: Erlbaum.
- Fromel, K., Mitas, J., & Kerr, J. (2009). The associations between active lifestyle, the size of a community, and SES of the adult population in the Czech Republic. *Health and Place, 15*(2), 447-454.
- Gannon, J. (1981). *Deaf heritage: A narrative history of deaf America*. National Association of the Deaf.
- Gonzalez-Cutre, D. & Sicilia, A. (2012). Motivation and exercise dependence: A study based on self-determination theory. *Research Quarterly for Exercise and Sport, 83*(2) 318-329.
- Gorrell, H. L. (1983, September). Maere cup finally comes home. *The NAD Broadcaster*. Silver Springs, MD. National Association of the Deaf.
- Gaustad, MG. (1999). Including the kids across the hall: Collaborative instruction. *Journal of Deaf Studies and Deaf Education, 4*(3), 176,190.
- Gillard, A., Watts, C.E., & Witt, P.A. (2009). Camp supports for motivation and interest: A mixed-methods study. *Journal of Park and Recreation Administration, 27*(2), 74-96.
- Goffman, E. (1961). *Encounters: Two studies in the sociology of interaction*. Indianapolis: The Bobbs-Merrill Co., Inc.

Goffman, E. (1983). The interaction order. *American Sociological Review*, 48(2), 1-17.

Gould, D., Lauer, L., Rolo, C., Jannes, C., Pennisi, N. (2008). The role of parents in tennis success: focus group interviews with tennis coaches. *The Sport Psychologist*, 22(11), 18-37.

Graziadei, A.E. (1998). *Learning outcomes of deaf and hard of hearing students in mainstreamed physical education classes*. (Doctoral dissertation. College Park, MD: University of Maryland). Available from ProQuest Dissertations and Theses. (UMI No. 9836408)

Grindstaff, J.S. (2007). *Development and validation of the deaf athletic coping skills inventory*. (Doctoral Dissertation. Knoxville: University of Tennessee). Available from ProQuest Dissertations and Theses. (UMI No. 3286926)

Hadjikakou, K., & Nikolarazi, M. (2007). The impact of personal educational experiences and communication practices on the construction of deaf identity in Cyprus. *American Annals of the Deaf*, 152(4), 398-414.

Hadjikakou, K., & Nikolarazi, M. (2011). Deaf clubs today: do they still have a role to play? The cases of Cyprus and Greece. *American Annals of the Deaf*, 155(5), 607-17.

Hadjikakou, K., PeLridou, L., & Stylianou, C. (2008). The academic and social inclusion of oral deaf and hard-of-hearing children in Cyprus secondary general education: Investigating the perspectives of the stakeholders. *European Journal of Special Needs*, 23(1), 17-29.



- Hanrahan, S. (2003). Sport psychology and athletes with disabilities. In T. Morris & J. Summers (Eds.), *Sport psychology: Theory, application, and issues* (pp. 572-583). Queensland, Australia: Wiley.
- Harris, J. (1995). Boiled eggs and baked beans: A personal account of a hearing researcher's journey through deaf culture. *Disability & Society*, 10(3), 295-308. doi: 10.1080/09687599.
- Hartman, E., Houwen, S., & Visscher, C. (2011). Motor skill performance and sports participation in deaf elementary school children. *Adapted Physical Activity Quarterly*, 28(2), 132-145.
- Harvey, M. and Dym, B. (1987). An ecological view of deafness. *Family Systems Medicine*, 5(1), 52-64.
- Hatch, A.H. (2002). *Doing qualitative research in education settings*. Albany, NY: State University of New York Press.
- Hergenhahn, B. & Olson, M. (2001). *An introduction to theories of learning*. Upper Saddle River, NJ: Prentice-Hall.
- Hidi, S. (2000). An interest researcher's perspective: the effects of extrinsic and intrinsic factors on motivation. In C. Sansone & J.M. Harackiewicz (Eds.), *Intrinsic and extrinsic motivation: The search for optimal motivation and performance* (pp. 309-339). San Diego, CA: Academic Press.
- Hoffman, M. (2012). *Impact of sport participation on the psychological development of mainstreamed hard of hearing adolescent athletes*. (Doctoral Dissertation.

- Philadelphia: Temple University). Available from ProQuest Dissertations and Theses. (UMI No. 1511703)
- Hole, R. (2007). Narratives of identity: A post-structural analysis of three deaf women's life stories. *Narrative Inquiry*, 7, 259-278.
- Iso-Ahola, S. (1980). *The social psychology of leisure and recreation*. Dubuque, IA : Wm. C. Brown Company.
- Iso-Ahola, S., Jackson, E., & Dunn, E. (1997) Starting ceasing and replacing leisure activities over the life-span. In R. C. Mannell & D. A. Kleiber, (eds.) *A social psychology of leisure* (pp. 249-259). State College, PA: Venture Publishing, Inc.
- Janesick, V.J. (2004). *Stretching exercises for qualitative researchers*. Thousand Oaks, CA: Sage Publications, Inc.
- Jones, C. I. (1985). *The demise and revival of tennis in the modern Olympic games – 1924 and 1984*. MS Thesis. Penn State University. Microform Publications, Eugene, OR. Order No. PE2842f.
- Jones, E., Renger, R., & Kang, Y. (2007). Self-efficacy for health-related behaviors among deaf adults. *Research in Nursing and Health*, 30, 185-192.
- Jones, R. L. (1947). Leroy Colombo – the lifeguard who would not quit. *Galveston Week*. 1(41).
- Jordan, D. J. (1999). *Leadership in leisure services: making a difference*. State College, PA: Venture Publishing, Inc.

- Jordan, J. (2001). *The World Games for the Deaf and the Paralympic Games*. Retrieved from [ciss.org/info/articles/jj](http://ciss.org/info/articles/jj)
- Juvonen, J. & Wentzal, K. (1996). *Social motivation: Understanding children's school adjustment*. New York: Cambridge University Press.
- Kamperman, K. (1999). *Tennis Participation Today*. Tennis Industry Association. Retrieved from [tennisindustry.org/execsum/index](http://tennisindustry.org/execsum/index)
- Kannapell, B.M. (1991, March). *The relationship of deaf studies and deaf identity*. Paper presented at the Deaf Studies Conference. Washington, DC.
- Kelly, J. (1996). *Leisure*. Needham Heights, MA: Allyn & Bacon.
- Kipp, L., & Amorose, A.J. (2008). Perceived motivational climate and self-determined motivation in female high school athletes. *Journal of Sport Behavior*, 31, 108-129.
- Kurkova, P., Scheetz, N. & Stelzer, J. (2010). Health and physical education as an important part of school curricula: A comparison of schools for the deaf in the Czech Republic and the United States. *American Annals of the Deaf*, 155(1), 78-96. doi: 10.1353/aad.0.0132.
- Kurkova P., Valkova, H., & Scheetz, N. (2011). Factors impacting participation of European elite deaf athletes in sport. *Journal Sports Sciences*, 29(6), 607-618. doi: 10.1080/02640414.2010.548821.

- Lane, H., Hoffmeister, R., & Bahan, B. (1996). *A journey into the deaf-world*. San Diego, CA: Dawn Sign Press.
- Levey, J. (2012). Olympic knowledge. *Tennis*, 48(6), 42-43.
- Levinson, D. & Christensen, K. (1999). *Encyclopedia of world sport*. New York: Oxford University Press.
- Levinson, D., Darrow, C., Klein, F., Levinson, M., & McKee, B. (1997). The seasons of a man's life. In R. C. Mannell & D. A. Kleiber, (Eds.) *A social psychology of leisure* (pp.201-212). State College, PA: Venture Publishing, Inc.
- Lieberman, L.J., Arndt, K. & Daggert, S. (2007). Promoting leadership in physical education and recreation. *Journal of Physical Education, Recreation, and Dance*, 78, 46-50.
- Lidor, R. & Lavyan, N. (2002). A retrospective picture of early sport experiences among elite and near-elite Israeli athletes: Developmental and psychology perspectives. *International Journal of Sport Psychology*, 33, 269-289.
- Lilienfeld, R. (1978). *The rise of systems theory*. New York: John Wiley & Sons.
- Lucas, J.W., Schiller, J.S., & Benson, V. (2004). Summary health statistics for U.S. adults: National Health Interview Survey, 2001. *Vital Health Statistics*, 10(218), 1-134.
- Mannell, R. C. and Kleiber, D. A. (1997). *A social psychology of leisure*. State College, PA: Venture Publishing, Inc.

- Marchitelli, A. (2011). *The Deaf as lifeguards: Patron surveillance is the key*.  
Unpublished paper.
- Marschark, M., & Hauser, P.C. (2008). *Deaf Cognition: Foundations and Outcomes*.  
New York: Oxford University Press.
- Martens, R. (2004). *Successful coaching*. Champaign, IL: Human Kinetics.
- McLean, D.D., & Hurd, A.R. (2012). *Kraus' recreation and leisure in modern society*.  
Sudbury, MA: Jones & Bartlett Learning, LLC.
- Mead, G.H. (1967). *Mind, self, and society*. Chicago: University of Chicago Press.
- Memmert, D. (2009). Noticing unexpected objects improves the creating of creative solutions. *Creativity Research Journal*, 21(2-3), 302-304.
- Merriam, S.B. (1998). *Qualitative research and case study applications in education*. San Francisco: Jossey-Bass.
- Mertens, D.M. (1998). *Research methods in education and psychology: Integrating diversity with quantitative & qualitative approaches*. Thousand Oaks, CA: Sage.
- Mertens, R. (2004). *Successful coaching*. Champaign, IL: Human Kinetics.
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook*. Thousand Oaks, CA: Sage Publications.
- Miller, D. (1973). *Introduction: Bibliographical notes in Millers' George Herbert Mead – Self, language and the world*. Austin: University of Texas Press.

- Minns, B. (2013). *Never give up!* Brad Minns. www.bradminns.com
- Minter, M. (1989). Factors which may prevent full self-expression of deaf athletes in sports. *Palaestra*, 5(2), 36-39.
- Moore, D. E., (1996). *Educating the Deaf: Psychology, principles, and practices*. Geneva, IL: Houghton Mifflin.
- Moreno, J.A., Lopez de San Roman, M., Martinez-Galindo, C., Alonso, N., & Gonzalez-Cutre, D. (2008). Peers' influence on exercise enjoyment: A self-determination theory approach. *Journal of Sports Science and Medicine*, 7, 32-31.
- Mottet, T.P., & Beebe, S.A. (2006). Foundations of instructional communication. In T.P. Mottet, V.P. Richmond, & J.C. McCroskey (Eds.), *Handbook of instructional communication: Rhetorical and relational perspectives* (pp. 3-32). Boston: Pearson/Allyn & Bacon.
- Moustakas, C. (1994). *Phenomenological research methods*. Thousand Oaks, CA: Sage Publications, Inc.
- Muro, J.H., Stulmaker, H., & Kensinger, R. K. (2012). Coaching techniques and play therapy responses: A new communication pattern. *Strategies*, 25(6), 12-15.
- National Association for Sport and Physical Education (NASPE) (2004). *Moving into the future: National standards for physical education*. Reston, VA: American Alliance for Health, Physical Education, Recreation, and Dance.

- Nicholls, J.G. (1984). Conceptions of ability and achievement motivation. In R. Ames & C. Ames (Eds.), *Research on motivation in education: Student motivation* (pp. 39-73). New York: Academic Press.
- Nunez, J. Martin-Albo, J., Navarro, J., Sanchez, J., Gonzalez-Cutre, D. (2009). Intrinsic motivation and sportsmanship: Mediating role of interpersonal relationships. *Perceptual and Motor Skills*, 108(3), 681-4.
- Oliva, G.A., & Simonsen, A. (2000). Re-thinking leisure services for deaf and hard of hearing persons: A new paradigm. *Parks & Recreation*, 35(5), 78-86.
- Padden, C. (1987). American sign language. In *Gallaudet encyclopedia of deaf people and deafness*. New York: McGraw-Hill.
- Padden, C. (1996). The modern deaf community. In Parasnis, I. (Ed), *Cultural and language diversity and the deaf experience* (pp. 79-98). New York: Cambridge University Press.
- Padden, C. (2007). *The decline of Deaf clubs in the United States: A treatise on the problem of place*. Retrieved from <http://communication.ucsd.edu/padden/Decline%20of%20Deaf%20Clubs.pdf>
- Palmer, T., & Weber, K.M. (2006). The deaf athlete. *Current Sports Medicine Reports*, 5, 323-326.
- Parsons, J. (1998). *The ultimate encyclopedia of tennis*. London: Carlton Books Limited.

- Patton, M. (2002). *Qualitative research and evaluation methods*. Thousand Oaks, CA: Sage Publications, Inc.
- Pendlebury, William. (2003). The first deaf professional baseball player. *SIGNews*, 1(1), 29-30.
- Pinella, L. (1980). Sport and the deaf: A quest for meaningful experiences. *Journal of Physical Education and Recreation*, 51(3), 35.
- Pomeroy, B.N. (1982). Add some discovery to an orientation program for deaf students. *The Forum*, 8(2), 14, 19.
- Pomeroy, B.N., & Zaccagnini, K. (1978). Recreation for deaf people. *Trends*. National Park Service.
- Quinsland, L.K., Pomeroy, B.N., & Van Ginkel, A. (1986). Sorry I can't hear you: A current analysis of wilderness challenge programming with deaf people. *The Journal of Experiential Education*, 9(3), 9-12.
- Rapoport, R. & Rapoport, R. (1996). Leisure and the family cycle. In J. Kelly (Ed.), *Leisure* (pp. 414-432), Needham Heights, MA: Allyn & Bacon.
- Reich, L.M., & Lavay, B. (2009). Physical education and sport adaptations for students who are hard of hearing. *Journal of Physical Education, Recreation & Dance* (JOPERD), 80(3), 38-42.
- Ries, P.W. (1994). Prevalence and characteristics of persons with hearing trouble: United States, 1990-91. *Vital Health Statistics*, 10(188), 1-75.



- Roetert, P., Kovacs, M. & Crespo, M. (2009). What is talent and how do we identify it? *ITF Coaching and Sport Science Review*, 16(49), 2-4. Retrieved from [http://www.itftennis.com/shared/medialibrary/pdf/original/IO\\_46466\\_original\\_PDF#page=2](http://www.itftennis.com/shared/medialibrary/pdf/original/IO_46466_original_PDF#page=2)
- Rossmann, J. R. (2000). *Recreation programming: Designing leisure experiences*. Champaign, IL: Sagamore.
- Rubin, H.J. & Rubin, I.S. (1995). *Qualitative interviewing: The art of hearing data*. Thousand Oaks, CA: Sage.
- Ryan, R.M., & Deci, E.L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55(1), 68-78.
- Sage, G. (1986). Social development. In C. Seefeldt, (Ed.) *Physical activity and well-being* (pp. 343-371). Reston, VA: American Alliance for Health, Physical Education, Recreation, and Dance.
- Samdahl, D.M. (1988). A symbolic interactionist model of leisure: Theory and empirical support. *Leisure Sciences*, 1, 27-39.
- Schmitt-Rodermund, E. and Vonrbeck, F. W. (1999, December). Breadth of interests, exploration, and identity development in adolescence. *Journal of Vocational Behavior*, 55(3), 298-317.

- Schempp, P., McCullick, B., Busch, C., Webster, C., & Mason, I., (2006). The self-monitoring of expert sport instructors. *International Journal of Sports Science & Coaching*, 1(1), 25-35.
- Schultz, M. (1995). *On studying organizational cultures*. New York: Walter de Gruyter.
- Scott, W. (1995). *Institutions and organizations*. Thousand Oaks, CA: Sage.
- Seguillion, D. (2002). The origins and consequences of the first world games for the deaf: Paris, 1924. *The International Journal of the History of Sport*. 19(1), 119-136.
- Senge, P. (1990). *The fifth discipline: The art and practice of the learning organization*. New York: DoubleDay.
- Shen, B., Chen, A., & Guan, J. (2007). Using achievement goals and interest to predict learning in physical education. *Journal of Experimental Education*, 75, 89-108.
- Shen, B., Chen, A., & Tolley, H. (2003). Gender and interested-based motivation in learning dance. *Journal of Teaching in Physical Education*, 22, 396-409.
- Sherrill, C. (1993). *Adapted physical education and recreation: A multi-disciplinary approach*. Dubuque, IA: Wm. C. Brown.
- Sigmund, E., Sigmundova, D., & El Ansari, W. (2009). Changes in physical activity in preschoolers and first grade children: Longitudinal study in the Czech Republic. *Child Care, Health, and Development*, 35(3), 376-382.
- Silverman, D. (1971). *The theory of organizations: A sociological framework*. New York: Basic Books.

- Silverman, S. (2011). Teaching for student learning in physical education. *Journal of Physical Education, Recreation, & Dance*, 82(6), 29-34.
- Smith, B. (2010). Narrative inquiry: ongoing conversations and question for sport and exercise psychology research. *International Review of Sport and Exercise Psychology*, 3(1), 87-107.
- Snyder, E. & Spreitzer, E. (1978). *Social aspects of sport*. Englewood Cliffs, NJ: Prentice-Hall.
- Standage, M., Gillison, F., & Treasure, D.C. (2007). Self-determination and motivation in physical education. In M. Hagger & N. Chatzisarantis (Eds.), *Intrinsic motivation and self-determination in exercise and sport* (pp.71-85). Champaign, IL: Human Kinetics.
- Stewart, D. (1991). *Deaf sport: The impact of sports within the deaf community*. Washington, DC: Gallaudet University Press.
- Stewart, D.A. (1986). Deaf sport in the community. *Journal of Community Psychology*, 14, 196-205.
- Stewart, D.A. & Ammons, D. K. (2001). Future directions of the Deaflympics. *Palaestra*, 17(3), 45-49.
- Stewart, D.A., Dummer, G., & Haubenstircker, J. (1990). Review of administration procedures used to assess the motor skills of deaf children and youth. *Adapted Physical Activity Quarterly*, 7, 231-239.

- Stewart, D., McCarthy, D., & Robinson, J., (1988). Participation in deaf sport: Characteristics of deaf sport directors. *Adapted Physical Activity Quarterly*, 5(2), 233-244.
- Sullivan, G. S., & Strode, J. P. (2010). Motivation through goal setting: A self-determined perspective. *Strategies*. 23(6), 19-24.
- Surgeon General's Report (1996). In Yoh, T, Crouch, M. (2007). Assessing College Students with Disabilities Satisfaction with Campus Recreational Physical Activity Programs. *Research Quarterly for Exercise and Sport*. 78(1), A-105.
- United States Tennis Association. (2002). *USTA announces teams for Invacare World Team Cup*. Retrieved from [palestra.com/newsreleases.html](http://palestra.com/newsreleases.html), p. 2.
- USADSF (2013). Retrieved from <http://www.usdeafsports.org/tennis/news/2013/>
- Vallarand, R.J., Losier, G.F. (1994). Self-determined motivation and sportsmanship orientations: An assessment of their temporal relationship. *Journal of Sport & Exercise Psychology*. Champaign. 16(3), 229-31.
- Vargas, T., Flores, M., & Beyer, R. (2012). Coaching athletes with hidden disabilities: Recommendations and strategies for coaching education. *Strategies*, 25(3), 32-33.
- Veenstra, C., (2009). Strategy for improving freshman college retention. *The Journal for Quality and Participation*. Cincinnati. 31(4), 19-23.
- Vernon, M., & Andrews, J. (1990). *The psychology of deafness: Understanding deaf and hard-of-hearing people*. New York: Longman.

- von Bertalanffy, L. (1968). *General system theory*. New York: George Braziller.
- von Bertalanffy, L. (1981). *A systems view of man*. Boulder, CO: Westview Press.
- Wallechninsky, D. (2000). *The complete book of the summer Olympics*. Woodstock, NY: Overlook Press.
- Wang, Z. (2008). An investigation on the physical self-esteem of young deaf-mute students. *Journal of Beijing Sport University*, 31(10), 1410-1413. Retrieved from <http://ehis.ebscohost.com.ezp.waldenulibrary.org/ehost/detail?vid=4&hid=1&sid=ad4e>
- Webster, C. A. (2010). Increasing student motivation through teacher communication: Six essential skills every physical educator should master. *Journal of Physical Education, Recreation, & Dance*, 81(2), 29-33.
- Weidong, L., Solmon, M.A., Lee, A.M., Purvis, G. Hongnan, C. (2007). Examining the relationships between students' implicit theories of ability, goal orientations and the preferred type of augmented feedback. *Journal of Sport Behavior*, 30(3), 280-292.
- Weiss, M.R. (2002). Motivational orientations and sport behavior. In T.S. Horn (Ed.), *Advances in sport psychology* (pp. 101-103). Champaign, IL: Human Kinetics.
- Wigfield, A. & Eccles, J.S. (2002). *Development of achievement motivation*. San Diego, CA: Academic Press.
- Windschitl, M. (2008). *The relationship of participation in recreational sports with retention rates and academic success of first-year college students*. (doctoral

dissertation, University of Minnesota). Available from ProQuest Dissertations and Theses.

Yoh, T, Crouch, M. (2007). Assessing College Students with Disabilities Satisfaction with Campus Recreational Physical Activity Programs. *Research Quarterly for Exercise and Sport*, 78(1), A-105.

Young, J. A. & Browne, A. (2009). Teaching tennis to deaf children: A review of an Australian-based program. *International Tennis Federation Coaching and Sport Science Review*, 16(49), 5-7. Retrieved from [http://www.itftennis.com/shared/medialibrary/pfd/original/IO\\_46466\\_original](http://www.itftennis.com/shared/medialibrary/pfd/original/IO_46466_original)

Zaccagni, K.J. (2005). How physical education teacher education majors should be prepared to teach students with hearing loss: A national needs assessment. *American Annals of the Deaf*, 150, 273-282.

Zulauf, D. Cole. (2002). USADSF Hall of Fame celebrates 50. *USADSF Bulletin*. 34(6), C1.

## Appendix A: Deaf Tennis Profile Questionnaire

Code: \_\_\_\_\_

**DEAF TENNIS PROFILE QUESTIONNAIRE**

This survey will identify important information about you and your interest in tennis. Please select the best answer for each statement. It will take 5 - 10 minutes to complete this survey. I value your participation in this study. Thank you.

**Part I:** Read each statement and select the best answer that applies to you:

1. How old were you when you learned to play tennis? \_\_\_\_\_
2. How many years have you played tennis? \_\_\_\_\_
3. What level of playing experience have you had? (check all that apply)
  - HIGH SCHOOL TENNIS TEAM \_\_\_\_\_
  - COLLEGE TENNIS TEAM \_\_\_\_\_
  - SATELLITE TOURNAMENT TOUR \_\_\_\_\_
  - WORLD GAMES FOR THE DEAF / DEAFLYMPICS \_\_\_\_\_
  - DRESSE-MAERE CUPS / WORLD DEAF TENNIS CHAMPIONSHIPS \_\_\_\_\_
  - OTHER \_\_\_\_\_
4. How did you learn to play tennis? (check all those that apply)
  - STATE/PRIVATE SCHOOL FOR THE DEAF \_\_\_\_\_
  - PUBLIC SCHOOL PHYSICAL EDUCATION/AFTER SCHOOL PROGRAM \_\_\_\_\_
  - U.S. TENNIS ASSOCIATION EDUCATION PROGRAM \_\_\_\_\_
  - COLLEGE/UNIVERSITY \_\_\_\_\_
  - CAMP \_\_\_\_\_
  - FAMILY \_\_\_\_\_
  - FRIEND \_\_\_\_\_
  - PRIVATE LESSONS \_\_\_\_\_
  - GROUP LESSONS \_\_\_\_\_
  - OTHER \_\_\_\_\_

5. Was tennis offered as an activity at your elementary school?  
YES\_\_\_\_\_ NO\_\_\_\_\_
6. Was tennis offered as an activity at your junior high or middle school?  
YES\_\_\_\_\_ NO\_\_\_\_\_
7. Was tennis offered as an activity at your high school?  
YES\_\_\_\_\_ NO\_\_\_\_\_
8. Have you ever played on a hearing team?  
YES\_\_\_\_\_ NO\_\_\_\_\_
9. Have you ever played on a Deaf team?  
YES\_\_\_\_\_ NO\_\_\_\_\_
10. Have you participated in a national Deaf tennis tournament/tryout before?  
YES\_\_\_\_\_ NO\_\_\_\_\_
- If YES, how many times? \_\_\_\_\_
11. How did you find out about the Deaflympics or World Deaf Tennis Championships?
- STATE/PRIVATE SCHOOL FOR THE DEAF\_\_\_\_\_
- PUBLIC SCHOOL PHYSICAL EDUCATION/AFTER SCHOOL  
PROGRAM\_\_\_\_\_
- U.S. TENNIS ASSOCIATION EDUCATION PROGRAM \_\_\_\_\_
- COLLEGE/UNIVERSITY \_\_\_\_\_
- CAMP\_\_\_\_\_
- FAMILY\_\_\_\_\_
- FRIEND \_\_\_\_\_
- OTHER \_\_\_\_\_



**Part II:** Your background would be helpful for demographic purposes only. Feel free to answer only the questions that are comfortable for you.

1. Gender (check one): MALE \_\_\_\_\_ FEMALE \_\_\_\_\_

2. What is your current age? \_\_\_\_\_

3. What is your race? (check one or more)

WHITE \_\_\_\_\_

BLACK or AFRICAN AMERICAN \_\_\_\_\_

HISPANIC or LATINO (specify) \_\_\_\_\_

AMERICAN INDIAN or ALASKA NATIVE \_\_\_\_\_

ASIAN (specify) \_\_\_\_\_

PACIFIC ISLANDER (specify) \_\_\_\_\_

OTHER (specify) \_\_\_\_\_

4. What is your decibel loss? (check one)

MILD (16-54 dB) \_\_\_\_\_

MODERATE (55-69 dB) \_\_\_\_\_

SEVERE (70-89 dB) \_\_\_\_\_

PROFOUND (90+ dB) \_\_\_\_\_

DON'T KNOW \_\_\_\_\_

5. How old were you when you became deaf or hard of hearing? \_\_\_\_\_

6. Do you know ASL?

YES \_\_\_\_\_ NO \_\_\_\_\_

If YES, how old were you when you learned ASL? \_\_\_\_\_

7. How do you identify yourself personally? (check all those that apply)

DEAF \_\_\_\_\_

HARD OF HEARING \_\_\_\_\_

ORALIST \_\_\_\_\_

HEARING-IMPAIRED \_\_\_\_\_

LATE-DEAFENED \_\_\_\_\_

OTHER (specify) \_\_\_\_\_

8. Who do you socialize with most of the time (check one)?

DEAF \_\_\_\_\_

HARD OF HEARING \_\_\_\_\_

DEAF AND HARD OF HEARING \_\_\_\_\_

HARD OF HEARING AND HEARING \_\_\_\_\_

HEARING PEOPLE \_\_\_\_\_

DEAF, HARD OF HEARING, AND HEARING \_\_\_\_\_

OTHER (please specify) \_\_\_\_\_

9. Which is the highest level of education that you have completed? (check one)

JUNIOR HIGH/MIDDLE SCHOOL \_\_\_\_\_

HIGH SCHOOL \_\_\_\_\_

JUNIOR/COMMUNITY COLLEGE \_\_\_\_\_

COLLEGE/UNIVERSITY \_\_\_\_\_

OTHER \_\_\_\_\_

10. Where did you go to school? Please write the number of years you went to school for the following:

|                                 | YEARS |
|---------------------------------|-------|
| RESIDENTIAL SCHOOL FOR THE DEAF | _____ |
| ORAL SCHOOL FOR THE DEAF        | _____ |
| SPECIAL CLASS IN PUBLIC SCHOOL  | _____ |
| PUBLIC SCHOOL (regular)         | _____ |
| OTHER (please specify)_____     | _____ |

11. As a child (5-12 years old) your communication mode was:

SIGN LANGUAGE\_\_\_\_\_

ORAL\_\_\_\_\_

BOTH – SIGN LANGUAGE AND ORAL\_\_\_\_\_

OTHER (please specify)\_\_\_\_\_

12. Primary mode of communication you use NOW:

AMERICAN SIGN LANGUAGE (ASL) \_\_\_\_\_

PIDGIN SIGN ENGLISH (PSE) \_\_\_\_\_

ORAL\_\_\_\_\_

ASL AND ORAL\_\_\_\_\_

PSE AND ORAL\_\_\_\_\_

ASL AND PSE\_\_\_\_\_

OTHER (please specify)\_\_\_\_\_

**Send your completed statements via email to [robbie.carmichael@waldenu.edu](mailto:robbie.carmichael@waldenu.edu) by Wednesday, October 2<sup>nd</sup>**

**THANK YOU!**

## Appendix B: Deaf Tennis Experience Questionnaire

**DEAF TENNIS EXPERIENCE QUESTIONNAIRE**

Code: \_\_\_\_\_

Answers to this questionnaire will be held in strict confidence and data will be collected and reported in summative form only. As you answer these questions, try to remember your playing experience in tennis whether it be recreational or competition, and with Deaf or hearing tennis players. Please remember not to mention any names of teammates, coaches, or staff on this questionnaire. If you forget and mention a name, I will omit or change that name in my write-up. Feel free to say N/A (not applicable) to any questions that do not apply. Thank you.

**Main Questions**

- 1a. In order of their importance with most important first, please list three individuals who have influenced your interest in playing tennis. (e.g., parent, sibling, friend, instructor, coach, or professional tennis player)
- 1b. What have you learned from each of them?
2. What motivated you to play tennis?
3. Give some examples of what you do or did to improve your tennis game?
4. How important is or was the tennis team as a social group for you? Why?
1. How have your experiences in tennis influenced other aspects (parts) of your life?
6. What suggestions do you have for tennis instructors or coaches who work with Deaf individuals?

**Send your completed statements via email to [robbie.carmichael@waldenu.edu](mailto:robbie.carmichael@waldenu.edu) by Wednesday, October 2<sup>nd</sup>.**

**THANK YOU**

## Appendix C: Deaf Tennis Videophone Interview

**DEAF TENNIS VIDEOPHONE INTERVIEW**

Code: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Place: \_\_\_\_\_

Participant: \_\_\_\_\_ Time of tape: (minute:second)

Your answers in this interview will be held in strict confidence and data will be collected and reported in summative form only. As you answer these questions, try to remember your playing experience in tennis whether it be recreational or competition, and with Deaf or hearing tennis players. Before we begin, please remember not to use any names of teammates, coaches, or staff during this interview. If you forget and mention a name, I will omit or change that name in my write-up. Thank you.

**Introduction**

1. What is or was it like while playing tennis?
2. What is your most memorable tennis experience?
3. Is there anything else you would like to add that should be included in this study?

Okay, that concludes the interview. Thanks for your time and participation in this study. May I have your permission to contact you if I have any questions concerning the interview? I will send you a copy of my notes via email after typing them up, so you can see if I have the correct information. Please email your feedback or confirmation within two weeks. You have the rights to privacy and confidentiality, therefore no information will be provided that would make it possible to identify you. You may withdraw from the study at any time. Thank you.

## Appendix D: Match Research and Experience Questions

Central Research Question: What is the role of playing tennis in the lives of Deaf individuals?

DTEQ#5: How have your experiences in tennis influenced other aspects of your life?

DTVI #1: What is or was it like while playing tennis?

DTVI #2: What is your most memorable tennis experience?

Subquestion 1. How do Deaf individuals become exposed to tennis?

DTEQ#1a: In order of their importance with most important first, please list three individuals who have influenced your interest in playing tennis.

Subquestion 2. What are the learning opportunities for Deaf individuals in tennis?

DTEQ#1b: What have you learned from each of them?

DTEQ#3: Give some examples of what you do or did to improve your tennis game?

Subquestion 3. What are the underlying motivations for Deaf participants' engagement in tennis?

DTEQ#2: What motivated you to play tennis?

Subquestion 4. How does tennis competition impact Deaf participants?

DTEQ#4: How important is or was the tennis team as a social group for you? Why?

Subquestion 5. What suggestions do the participants have for tennis instructors and coaches who work with Deaf individuals?

DTEQ#6: What suggestions do the participants have for tennis instructors and coaches who work with Deaf individuals?

## Appendix E: Initial Typologies

### A. Motivation

#### 1. Self-determination

- a. Deci, E.L., & Ryan, R.M. (1985). *Intrinsic motivation and self-determination in human behavior*. New York: Plenum.
- b. Sullivan, G. S., & Strode, J. P. (2010). Motivation through goal setting: A self-determined perspective. *Strategies*, 23 (6), 19-24. Retrieved from [ezp.waldenulibrary.org/login?url=http://proquest.umi.com.ezp.waldenulibrary.org/pqdweb?did=2085738271&sid=1&Fmt=2&clientId=70192&RQT=309&VName=PQD](http://ezp.waldenulibrary.org/login?url=http://proquest.umi.com.ezp.waldenulibrary.org/pqdweb?did=2085738271&sid=1&Fmt=2&clientId=70192&RQT=309&VName=PQD)

#### 2. Achievement

- a. Dweck, C.S., & Leggett, E.L. (1988). A social-cognitive approach to motivation and personality. *Psychological Review*, 95, 256-273.
- b. Nicholls, J.G. (1984). Conceptions of ability and achievement motivation. In R. Ames & C. Ames (Eds.), *Research on motivation in education: Student motivation*, 1, 39-73. New York: Academic Press.

### B. Interaction

#### 1. Communication

- a. Mottet, T.P., & Beebe, S.A. (2006). Foundations of instructional communication. In T.P. Mottet, V.P. Richmond, & J.C. McCroskey (Eds.),

*Handbook of instructional communication: Rhetorical and relational perspectives*, 3-32. Boston: Pearson/Allyn & Bacon.

- b. Stewart, D. (1991). *Deaf sport: The impact of sports within the deaf community*. Washington, DC: Gallaudet University Press.
- c. Webster, C. A. (2010). Increasing student motivation through teacher communication: Six essential skills every physical educator should master. *Journal of Physical Education, Recreation, & Dance*. 81 (2), 29-33.

## 2. Self-Esteem

- a. Iso-Ahola, S., Jackson, E., & Dunn, E. (1997) Starting ceasing and replacing leisure activities over the life-span. In R. C. Mannell & D. A. Kleiber, (eds.) *A social psychology of leisure*. (p. 252), State College, PA: Venture Publishing, Inc.
- b. Kelly, J. (1996). *Leisure*. Needham Heights, MA: Allyn & Bacon.

## 3. Socialization

- a. Blumer, H. (1969). *Symbolic interactionism*. Englewood Cliffs, NJ: Prentice-Hall.
- b. Denzin, N. K. & Lincoln, Y. S. (2011). *Handbook of qualitative research*. Thousand Oaks, CA: Sage Publications, Inc
- c. Mead, G.H. (1967). *Mind, self, and society*. Chicago: University of Chicago Press.
- d. Patton, M. (2002). *Qualitative research and evaluation methods*. (3rd ed.). Thousand Oaks, CA: Sage Publications, Inc.



- e. Rossman, J. R. (2000). *Recreation programming: Designing leisure experiences*. Champaign, IL: Sagamore.

## C. Flow Experience

### 1. Learning Opportunity

- a. Hergenhahn, B. and Olson, M. (2001). *An introduction to theories of learning*. Upper Saddle River, NJ: Prentice-Hall.
- b. Sherrill, C. (1993). *Adapted physical education and recreation: A multi-disciplinary approach*. Dubuque, IA: Wm.C. Brown.

### 2. Exposure

- a. Stewart, D. (1991). *Deaf sport: The impact of sports within the deaf community*. Washington, DC: Gallaudet University Press.
- b. Kelly, J. (1996). *Leisure*. Needham Heights, MA: Allyn & Bacon.

### 3. Satisfaction

- a. Csikszentmihalyi, M. (1990). *Flow: The psychology of optimal experience*. New York: Harper & Row Publishers, Inc.
- b. Csikszentmihalyi, M. (1997). *Finding Flow: The psychology of engagement with everyday life*. Basic Books.
- c. Edginton, C. R., Jordan, D. J., DeGraaf, D. G., & Edginton, S. R. (2000). *Leisure: Life satisfaction*. Boston: WCB/McGraw-Hill.

## Appendix F: Initial Coding List

### Learning Experiences of Deaf Individuals in Tennis

#### Interviewer's Codes:

I - interviewer's statement

P - participant's statement

CRQ - central question

SQ1- research subquestion #1

SQ2- research subquestion #2

SQ3- research subquestion #3

SQ4 - research subquestion #4

SQ5- research subquestion #5

#### Conceptual Framework/Research Question Codes:

Tripartite Conceptual Framework (Motivation, Interaction as a Symbol, and Flow Experience)

Central Research Question (Flow experience)

Research Subquestion #1 (exposure)

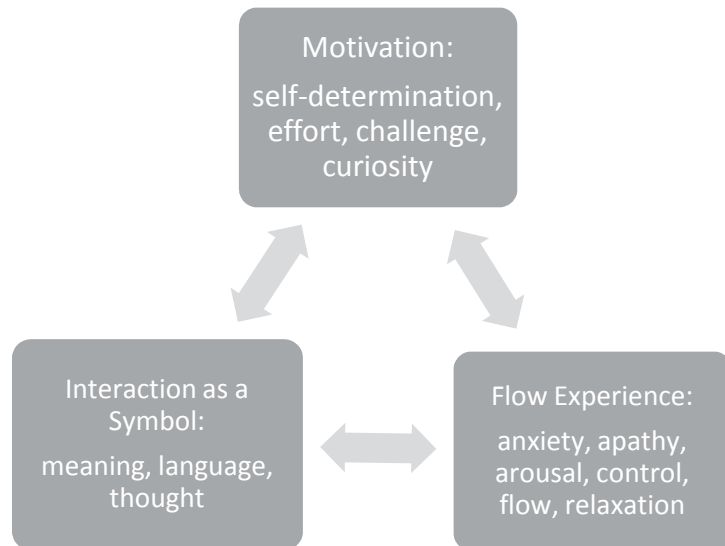
Research Subquestion #2 (learning)

Research Subquestion #3 (motivation)

Research Subquestion #4 (interaction)

Research Subquestion #5 (suggestions)

## Appendix G: Tripartite Framework



*Figure 1.* Tripartite framework

Appendix H: Facebook Invitation to Participate in the Tennis Study

**FACEBOOK INVITATION TO PARTICIPATE IN THE TENNIS STUDY**

Date: August 23, 2013

Dear Member of USA Deaf Tennis Online e-group:

You are invited to participate in a research study conducted by Robbie Jane Carmichael, a doctoral student at Walden University. The purpose of this study is to learn about how Deaf individuals learn to play tennis, so that future generations will be better prepared to enjoy the game.

The criteria for being in this study are to be: Citizens of the United States, deaf or hard of hearing over the age of 18 who had tennis playing experience, whether playing on a tennis team, tennis league, Deaflympics, or World Deaf Tennis Championships.

My students at Gallaudet University are excluded from this study.

Interested participants will be asked to complete two self-administered questionnaires online and one videophone interview to collect further information or clarification as needed. The phone conference interview will take place in a location of the participant's choice. You will receive a 1-2 page summary of my interpretation of the interview to review and provide feedback to me via email. The risks are minimal in participating in this study.

Upon completion of 2 questionnaires online and 1 phone conference interview you will receive a \$5 gift card from Starbucks or Walmart.

It is anticipated that your total participation in this process will take approximately 90 minutes. Your identity will be kept confidential. By participating in this study, you will benefit future generations of Deaf individuals who will be better prepared to play tennis.

If you are interested in participating in this study, please email to: [robbie.carmichael@waldenu.edu](mailto:robbie.carmichael@waldenu.edu) by **Friday, September 6, 2013**. Please feel free to contact me via email if you have any further questions. Thank you for giving this request your consideration. I look forward to your response.

Sincerely,

*Robbie Jane Carmichael*

Robbie Jane Carmichael

Walden University

Ph.D. Program in Education

Specialization: Physical Education and Recreation

## Appendix I: Cover Letter for 2 questionnaires

Date:

Dear (participant's name),

Thank you for signing the informed consent form to participate in this study: Learning Experiences of Deaf Individuals in Tennis. Please complete the two attachments online: Deaf Tennis Profile Questionnaire and the Deaf Tennis Experience Questionnaire.

After completing both questionnaires, return them via email as attachments by Wednesday, October 2<sup>nd</sup> to: [robbie.carmichael@waldenu.edu](mailto:robbie.carmichael@waldenu.edu).

If you have any further questions, please do not hesitate to contact me.

Sincerely,

*Robbie Jane Carmichael*

Robbie Jane Carmichael

Walden University

Ph.D. Program in Education

Specialization: Physical Education and Recreation

## Appendix J: Narratives

**Narrative 1: Cameron****Deaf Tennis Experience Questionnaire**

1a. In order of their importance with most important first, please list three individuals who have influenced your interest in playing tennis. (e.g., parent, sibling, friend, instructor, coach, or professional tennis player)

Cameron: Parents, Siblings, Coaches

1b. What have you learned from each of them?

Cameron: Life lessons such as dedication, commitment, character, determination, etc., tennis fundamentals, and communication

2. What motivated you to play tennis?

Cameron: A desire to be great at something

3. Give some examples of what you do or did to improve your tennis game?

Cameron: Played many matches every week, took tennis lessons, played tennis tournaments

4. How important is or was the tennis team as a social group for you? Why?

Cameron: Tennis is a lonely sport, so socializing with other members on the team (in college) helped developed trust and camaraderie among the players.

5. How have your experiences in tennis influenced other aspects (parts) of your life?

Cameron: Yes, and vice versa. Learning how to deal with frustrations, adversity, and tension on the tennis court have helped with real life decision-making. Additionally, learning how to handle success and failure on the court have helped with real life situations as well.

6. What suggestions do you have for tennis instructors or coaches who work with Deaf individuals?

Cameron: Be very patient. Look at the individual when speaking. And try to communicate no further than 5 feet away.

### **Deaf Tennis Interview**

Robbie: What is or was it like while playing tennis?

Cameron: I find tennis to be both an incredibly frustrating yet rewarding sport. There are many aspects to the sport that must be considered while playing a tennis match such as depth, angles, speed, velocity, racket type, string type, string tension, altitude, court conditions, opponent strengths and weaknesses, and many other considerations. Yet a tennis player must be able to put all this information into the back parts of their brain and instead focus exploiting an opponent's weakness and utilizing their own strengths in order to win. Focusing on any more than that can allow doubts or frustrations to creep in to a player's head, and the player will usually end up under-performing.

Robbie: What is your most memorable tennis experience?

Cameron: Winning the state tournament for the 18's age group as a 16 year old. I think that was the turning point in my understanding of how to construct points, as well as learning what it meant to be determined on a high level. Another highlight for me was representing my state in the Southern Section Davis Cup in juniors. And last, but not least, representing the United States in the Deaflympics.

Robbie: Is there anything else you would like to add that should be included in this study?

Cameron: Having coached college tennis for over 3 years now, I think it's important that players understand the value of determination and excellence, regardless of whether they are deaf or hearing. Many values in tennis can apply to real life and real life decision making.

---

### **Narrative 2: Josh**

#### **Deaf Tennis Experience Questionnaire**

1a. In order of their importance with most important first, please list three individuals who have influenced your interest in playing tennis. (e.g., parent, sibling, friend,

instructor, coach, or professional tennis player)

Josh: Mom, Dad, brother

1b. What have you learned from each of them?

Josh: Mom encouraged me to show up and overcome difficult situations. Dad pushed me to work hard and be disciplined. I learned from my brother on goal setting and positive self-talk.

2. What motivated you to play tennis?

Josh: At first I played to make everyone happy, and then I got better and played because I enjoyed winning, trophies and recognition. Now I play because I have come to the point where I can play with such ease and confidence that it is so relaxing and enjoyable and great exercise. I also now realize how blessed I am to play so I play to glorify God every way possible.

3. Give some examples of what you do or did to improve your tennis game?

Josh: (1) watch the best players and imitate them. (2) Weightlifting (3) Hit a lot of balls

4. How important is or was the tennis team as a social group for you? Why?

Josh: Playing on a team allowed me to learn how to communicate with others and build relationships and use my talents to win as a team. It is more satisfying being a part of a team and winning. I didn't learn this though until later in life.

5. How have your experiences in tennis influenced other aspects (parts) of your life?

Josh: Tennis has taught me many valuable life lessons, such as setting goals, working hard, how to deal with defeat and also how important the serve is. Life is about serving others and the person who serves well usually ends up winning most of the time. The experience I have gotten from tennis has helped me to overcome many adversities off court as well. I have met so many great people and have made lasting friendships because of tennis. I also met my wife on the tennis court.



6. What suggestions do you have for tennis instructors or coaches who work with Deaf individuals?

Josh: Be patient and face them when explaining or demonstrating.

### **Deaf Tennis Interview**

Robbie: What is or was it like while playing tennis?

Josh: When I first started playing tennis it was very difficult for me to learn. I was probably the last one to be able to get the ball over the net so I wanted to discontinue. I had a hard time understanding my instructors and was intimidated sometimes by my opponent. Thankfully my family encouraged me to persevere and overcome some of the adversity that comes along with learning something new. Today I enjoy playing very much. I have reached the point in my game where it is easy to hit all shots to the point where it is relaxing and fun.

Robbie: What is your most memorable tennis experience?

Josh: By far trying out for the World games for the deaf the first time, training in Midwest and then competing and winning victory the gold medal at the World Games for the Deaf!

Robbie: Can you share more about your experiences involving your medal match at the World Games for the Deaf? How were you able to come back from losing to winning the match?

Josh: I did my best to stay focused on playing one point at a time and keeping a positive mindset. My desire to win that match was very strong. The investment of time training off court gave me the advantage for being fitter than my opponent which turned out to be ideal for the long match. I also believe the praying while I was playing helped. When the match was finally over, having the gold medal placed on my neck while watching our country's flag be raised was one of the most exhilarating moments I've ever experienced as I felt a strong sense of patriotism and victory. I was so glad to have had the opportunity to play tennis with such an outstanding group. I met so many great friends from around the world with whom I could relate to and know we all had similar adversities to overcome off the court. It was an incredible experience. Today I try to promote these games for the upcoming youth by sharing my experiences.

Robbie: What was the turning point that got you involved in tennis?

Josh: The turning point came when I got to high school I devoted most of my time training for tennis. My family and I all thought the possibilities for me to excel were great as a tennis player.

Robbie: Is there anything else you would like to add that should be included in this study?

Josh: Robbie, thank you for inviting me to participate in your study. Tennis is a great sport. I have met so many awesome people through tennis and have enjoyed traveling throughout the US and abroad playing and coaching. The World Games for the Deaf and everyone involved have been an incredible blessing to me and I am so grateful for all who dedicate their time and talent to sharing the sport of tennis with the upcoming generations.

---

### **Narrative 3: Sami**

#### **Deaf Tennis Experience Questionnaire**

1a. In order of their importance with most important first, please list three individuals who have influenced your interest in playing tennis. (e.g., parent, sibling, friend, instructor, coach, or professional tennis player)

Sami: Parent, siblings, coach

1b. What have you learned from each of them?

Sami: My parents and siblings taught me that tennis is fun, I think we forget, especially when we get older, that tennis is a game, not work. My coach taught me that if I want to be good I will have to work hard and remember my goals. And also, I have to be disciplined with my life and my game.

2. What motivated you to play tennis?

Sami: My siblings started playing tennis before me, and I wanted to do everything they did, so when I started I remembered I loved playing and I wanted to keep playing. So I was motivated because I loved playing, and also I didn't have to worry about hearing anything, I could just go out and play.

3. Give some examples of what you do or did to improve your tennis game?

Sami: When I was 12, I worked with my siblings, and I did a lot of drills that involved me keeping the ball in X amount of times, or keeping the ball past the service line X amount of time, and any time I missed I would have to do 10 push-ups. I ran a lot, distance, and sprints. When I was older I focused more on footwork, losing weight by eating right, and working out to gain muscle.

4. How important is or was the tennis team as a social group for you? Why?

Sami: Because I was homeschooled I didn't have a lot of friends, so tennis was my social time. Especially in college, my team was the only people I was close to. However it was still hard for me to be close to them because I couldn't hear as well as they could. I felt ignored a lot, but they were important to me because we did a lot together. I could relate to them in tennis and school. My favorite tennis team was when I went to the Deaflympics, because most of us couldn't hear, I felt like I belonged there, I wasn't being ignored. This was important to me because I could relate to them on so many things, tennis, and hearing, how they go through life not hearing well. How they wake up in the morning. It was fun to talk about how they do things and how I do things. I learned that every deaf and hard of hearing person has their own way of living.

5. How have your experiences in tennis influenced other aspects (parts) of your life?

Sami: I have learned there are people out there that are not honest, and they will walk all over me if I let them. This has helped me to grow, because I can't let them walk all over me. I have to stand up to them. I have learned discipline. If I want to be good I have to be disciplined in my life and that will carry over into my game. I'm not a patient person, so I hate having long points, but sometimes I have to have long points, and that is where the discipline come in.

6. What suggestions do you have for tennis instructors or coaches who work with Deaf individuals?

Sami: There were a lot of incidents where I had no clue what my coach wanted from me, because I couldn't hear. It's hard to hear in the wind, or playing indoors, so it is important for coaches to know what kind of person they are teaching, deaf or hard of hearing. I think the most important thing is to walk up to them and tell them or show them what to do. And it's very important to be patient and don't rush them.

### **Deaf Tennis Interview**

Robbie: What is it like playing tennis?

Sami: I play for fun. I enjoyed playing against college teams and being involved in tournaments. Sometimes it was stressful and frustrating, but that is part of tennis. As strange as it sounds, that make tennis fun, because you have to figure out how to beat your opponent when you are not having a good day. It's challenging, and that makes tennis fun.

Robbie: What is your most memorable tennis experience?

Sami: My most memorable experience was my last year in college. We lost to our biggest rival a week before the conference tournament. Then we played them again at the conference tournament. I played #2 doubles; my partner and I had lost to the same team a week before. I looked around, and I saw that our #1 doubles team was down 0-3. I knew our #3 doubles team was losing, and it looked hopeless. However, every team was fighting, and we were determined to win. Our #1 doubles team pulled it out and won their match. Our doubles match was very close. We ended up winning our doubles match and clinched the doubles point. Singles was next, I played #5 singles. I lost the first set, then I went down 4-5 in second set, and little by little I scrambled back and won the second set 7-5, and finally, I won the third set 6-4. We needed to win my match to tie the whole team match. Our #2 singles player clinched the match with her win, right after I won my match. It was memorable for me because, it was exciting and we were out for revenge. Also it was my senior year in college. I wanted to have a good and fun senior year; I wanted it to be something that I will remember forever. And it was fun with all the excitement of being on a college team.

Robbie: Can you share more about your experiences involving the conference tournament? How were you able to come back from losing to winning your singles and doubles matches?

Sami: In my doubles match, it was neck and neck the whole time. I think we came out on top because we were tougher than our opponents, and all the pressure was on them to win, we were relaxed and pumped up, and ready to win. In singles, I knew exactly how to play my opponent, and I was ready to play her. However, I was thinking way too much and stressing myself out. For some reason I waited till I was down a set and losing 4-5 in the second set to calm down and play. That is another reason I love tennis, the match is never over until you shake hands. Sometimes all it takes to win a match is to be calm, play, and not think too much. And I have to remind myself that a lot, because I have been playing the game for many years. I know what I have to do to win a match, and even though sometimes it doesn't always work, I can always figure something out.

Robbie: What was the turning point that really got you to pursue tennis?

Sami: My parents got my older siblings involved in tennis and other sports. I wanted to do everything my siblings did, so once I was coordinated enough, I got involved with tennis and found that I loved playing tennis. I found tennis more relaxed.

Robbie: Is there anything else you would like to add that should be included in this study?

Sami: I am happy to help, and I enjoyed participating in this study.

---

#### **Narrative 4: Liz**

##### **Deaf Tennis Experience Questionnaire**

1a. In order of their importance with most important first, please list three individuals who have influenced your interest in playing tennis. (e.g., parent, sibling, friend, instructor, coach, or professional tennis player)

Liz: Dad, friend, instructor/coach

1b. What have you learned from each of them?

Liz: Dad taught me to stop hitting over high fence. Poor Dad was patient with me and my brothers. From Dad I learned patience and how to stop lobbing the balls over the chain-link fence. My friend helped me with my toss of the ball when serving. She said I do not have to accept a bad toss. My coach taught me to anticipate early, swing racket back, and get in ready position.

2. What motivated you to play tennis?

Liz: I liked hitting ball back and forth again and again. Just keep the ball in play. People told me that I am good at poaching from one side to another side near the net. They did not expect it cuz of my poker face.

3. Give some examples of what you do or did to improve your tennis game?

Liz: I joined tennis club and took group lessons with the USTA group. But coach demonstrated how NOT to do, and I copied how NOT to do because I did not hear his

instructions, I just copied what he did. I tried to explain to him and he did not understand so I just tried to copy other player during the drills. I played more often, morning match and again afternoon match. I was a sub for a higher level group, and that helped me to learn from them. They liked the way I poach in doubles, and I played lots of singles too. I was a working member at our indoor club so I could play for free and watch higher level players and matches. My daughter and sons played on high school teams, and I played lots of singles with them until they got better than me. Now the entire tennis club signs the scores, even the men learned to sign when I played and competed in mixed doubles with my husband.

4. How important is or was the tennis team as a social group for you? Why?

Liz: The social group was important for me to have during group lessons. It was fun to cheer for my team. Everyone I played with learned to sign the score and other basic signs for tennis. I got nervous sometimes playing in the singles competition. I played better at our own club. During competition, I blamed myself too much for making mistakes. I tried to force myself to "let it go" and keep trying my best. "It's just a game; you'll do better next time." When Mary joined the club and team, many players took sign language classes, and it became more fun.

5. How have your experiences in tennis influenced other aspects (parts) of your life?

Liz: I made so many friends playing tennis and working at the club. People told me I was very good, and some higher level players kept asking me to play singles with them or fill in for doubles. When I had shoulder surgery, I was afraid I'd hurt it again, so I quit tennis but continued working at the club for a few years. I still see those friends, but no more tennis for me. Our tennis club was almost like a church fellowship, we brought meals when someone had surgery or very ill. I never learned to stop blaming myself when I miss a big hit. Perhaps someday I will not let mistakes bother me and go on with my life, and think positive. I should teach my little grandchildren to play tennis as I remembered how patient my Dad was.

6. What suggestions do you have for tennis instructors or coaches who work with Deaf individuals?

Liz: ASL is crucial. If there is no interpreter, the coach MUST be clear when demonstrating which is the right or wrong way. If the coach is not willing to be patient, he or she must understand that I need my team players to shove me into the place he or she wants me to be. Don't hit the ball back to me if my side hit the ball out. Sign the word "out" and hold onto the ball.

### **Deaf Tennis Interview**

Robbie: What is it like playing tennis?

Liz: Tennis really makes me happy and I love it! I get excited when I make the moves to get the difficult shots. I was able to get the shots that were impossible. I got tense during the competition, but as the game progressed, I became more flexible. Watching other people play and how they get the shots is enjoyable to watch. I like competition and the challenge itself. I love all aspects of the tennis game in singles and doubles.

Robbie: What is your most memorable tennis experience?

Liz: My most memorable tennis experience was playing in a club league at the higher skill level. The club asked me to play tennis for them at the higher skill level. I then realized that my ability was equal to the higher skill level. It was an honor to play with them.

Robbie: What got you to get involved in the game of tennis?

Liz: I met a friend who encouraged me to play tennis with her at the tennis club. I started to work at the club cleaning and doing odd jobs. Then I was able to play for free at the club. I became addicted to the game as I want to play tennis morning and night. I was in my 30s. As for means of communication at the tennis club, I taught all the teams how to use the basic signs for tennis including keeping the score through signing and gesturing.

Robbie: You mentioned that you learned to play tennis in the public school. What do you meant by during the school program?

Liz: It was a short physical education program – basic teaching in tennis. There were 40 students in each class in the middle school. It was more of watching how the game was played. It was a 1 hour class and on 1 tennis court. There was not much actually physical doing tennis.

Robbie: You mentioned your coach as one of the individuals who has influenced your interest in playing tennis. Was this a high school coach or the one from your USTA/club league?

Liz: Both of them! The female PE teacher/tennis coach, former Olympian, who was my swim team and volleyball coach told me I should play for after school tennis team, too. I couldn't because my Mom didn't drive, and I had to go home on the school bus after school. That was the year my parents got divorced. My coach helped me get through the hard time by encouraging me to keep active in sports at the school. I swam laps during lunch hour rather than hang out with friends. Being hard of hearing at the public school was not easy. The hardest part of the day was the long lunch hour, because everyone just

stood around and talked. The divorces were really rare way back then in the 60s so I did not have any other guidance, and nobody else to talk to. The other one was my tennis club male coach/pro when I was about 30 until I stopped playing tennis in 2006 when I had to have shoulder and knee surgeries. I had both surgeries in 2006.

Robbie: Is there anything else you would like to add that should be included in this study?

Liz: I had a Deaf friend with a tunnel vision, Ushers Syndrome, who wanted to watch us play tennis. She could see only a narrow area so I needed to hit into her line of vision so she could return the ball. It was a challenge to hit in that narrow area where she could see, but I had become skilled enough to aim my shots to her so we both were successful in having a great rally. It was exciting to watch my Deaf friend get excited about the game. She got to feel the tennis ball and racket. We walked her through to hit and bounce the tennis ball. It made her really excited, and we got excited watching our Deaf Blind friend play tennis.

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## **Narrative 5: Nick**

### **Deaf Tennis Experience Questionnaire**

1a. In order of their importance with most important first, please list three individuals who have influenced your interest in playing tennis. (e.g., parent, sibling, friend, instructor, coach, or professional tennis player)

Nick: USTA coach and my tennis buddies from high school.

1b. What have you learned from each of them?

Nick: The USTA coach taught me many different techniques, and he had a lot of patience to help me on the court. He used different strategies to help me get through mentally on and off the court.

2. What motivated you to play tennis?

Nick: I used to play tennis every day, and I used to hit the ball against the garage door every night before I go to bed. I love playing tennis and finding a way to help me mentally. I always watch sports on TV to help me get motivated or visualized how I would win.



3. Give some examples of what you do or did to improve your tennis game?

Nick: I work on my backhand and forehand shots from one corner to another corner. I use cones to help me to place the shot I want to hit. I don't have any one who can help feed me the balls. I just learn to play tennis on my own. I learn by watching the film and tennis pro.

4. How important is or was the tennis team as a social group for you? Why?

Nick: I was not social with everyone in high school due to limited communication skills. I had a hard time understanding anyone, and it was not easy for me to understand anything during the group talk. In college, I played on the tennis team, and we had a tight bond. We would invent some gestures or make up some signs. Most of the time, we would provoke or kid each other. That is how we built our brotherhood, plus the coach helped us with our skills and strategies all the way.

5. How have your experiences in tennis influenced other aspects (parts) of your life?

Nick: My experiences helped me get through my rages and issues with the hearing people. I have been through the good and bad times in tennis. Sometimes, I would need help or someone to talk with. I had some tennis buddies to help me out. I learned many things from the tennis players on and off the court. Through tennis, I made new friends and received wise advices from them.

6. What suggestions do you have for tennis instructors or coaches who work with Deaf individuals?

Nick: My suggestion is for tennis instructors or coaches to take ASL classes, and so they can communicate more with the Deaf players. Also, they need to learn the Deaf culture and background. Some players come from different backgrounds and limited experiences in tennis.

### **Deaf Tennis Interview**

Robbie: What is it like playing tennis?

Nick: Tennis has helped me to escape, release tension and stress, how to accept defeat and face my fears, and not think about problems. Tennis has taught me how to get through life. It is a love/hate sport, not always a win, win situation. Sometimes we lose.

This creates another level of emotion that I have to deal with.

Robbie: What is your most memorable tennis experience?

Nick: The most memorable experience was when I was a sophomore in college. I played doubles under Intercollegiate Tennis Association.

We won the American Southwest Conference Third Flight Doubles Championship. We worked hard and worked on communication as well as our tennis. My doubles partner was hearing, so I taught him some signs. Communication was a work in progress.

Robbie: What made you want to stay with tennis?

Nick: I enjoy it. Love the game. Tennis keeps me busy and helps me to focus. It helps me to release the tension and stress in life. There is a strong tennis community out there. If I need a player, I can contact someone to play the game. There is a social aspect to it.

Robbie: In the questionnaire, you mentioned a person as one of the individuals who has influenced your interest in playing tennis. Is he a coach, tennis pro, or instructor?

Nick: He is an instructor. First I started playing for fun, and then he got me playing more against other players. He has helped me with tennis techniques. He helped me how to use my head in the game.

Robbie: How old were you at that time with the instructor?

Nick: I was 12 years old at that time. I had him for one year.

Robbie: How did the instructor communicate with you? By voice? Gesture? Sign language?

Nick: By voice, gesture, and writing. He used many demonstrations by showing the action with his body.

Robbie: In the questionnaire, you mentioned that your tennis buddies in high school have influenced your interest in tennis. Were your tennis buddies all hearing?

Nick: Yes, I was the only Deaf person that knew signs.

Robbie: Is there anything else you would like to add that should be included in this study?

Nick: There are not many Deaf tennis players, reason why, not sure. Most Deaf players tend to play doubles, not singles. Deaf individuals can't afford private lessons, equipment, or going to tennis camps. It is hard on the Deaf players. There is a huge communication problem in tennis with the Deaf. Communication and money is a stumbling block in tennis for the Deaf. There's a difference in race. Most of the players

are white. Tennis is a white abled bodied sport. There is not much of diversity in the sport, we are definitely a minority. Hard of hearing or oral individuals have gotten involved with tennis more recently – but where are the deaf people? I remember in the past that there were more Deaf involved in tennis, but now it seems that the number has dwindled significantly.

Robbie: We need more Deaf role models like you to get the Deaf involved with tennis.

Nick: Other issue is money, where do we play, and where is there a local venue. How many Deaf are willing to play against hearing? Another issue is time, family or friend support – comfortable in playing with another race, maybe more comfortable in a team setting. There's no single answer. Some Deaf people just won't be flexible. I have always been on the fence between the hearing and Deaf worlds. I learned how to deal and manage, but some people don't know how to handle it and lose temper. They want to give up because they lack the self-esteem or the confidence that it takes. Maybe they don't have support from other people or from other teams. This seems to have a big effect in the Deaf community. I have been working with another person on my project to get the exposure of tennis out there to the Deaf community, thus getting Deaf involved.

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## **Narrative 6: Kristi**

### **Deaf Tennis Experience Questionnaire**

1a. In order of their importance with most important first, please list three individuals who have influenced your interest in playing tennis. (e.g., parent, sibling, friend, instructor, coach, or professional tennis player)

Kristi: college coach, myself, Chris Evert

1b. What have you learned from each of them?

Kristi: 1 b I learned from college coach the most as she taught tennis strategies and techniques via ASL. She had the best body language when communicating and demonstrating tennis. Initially, I did not have anyone to teach me. I had to buy my own racket and just learned by hitting a tennis ball against the dorm wall by myself again and again. I did this until I was 11 years old, when a PE teacher happened to see me hitting against the wall. He told me about a tennis tournament. So I signed up for it even though I had no idea how to follow the rules. I played my first game and lost. Then I won every game after that and went on to win the championship. I learned more about tennis from watching Chris Evert on TV in Wimbledon. I studied her moves and plays. I learned more strategies.

2. What motivated you to play tennis?

Kristi: I quickly became motivated because I was the champion, and continued winning 4 years in a row. I met a Deaf friend who told me about the Deaf college tennis team.

3. Give some examples of what you do or did to improve your tennis game?

Kristi: I studied players by watching what they did. I served very hard and had many aces. I improved my game by teaching myself.

4. How important is or was the tennis team as a social group for you? Why?

Kristi: I loved the team spirit, and being part of the team. My college tennis team placed 3rd at the regional championships. The best part was having international players on our team. Following our wins or losses, we had fun chatting in ASL on the way to nice restaurants during away games. Being part of the tennis team was thrilling, and a super adrenaline rush!

5. How have your experiences in tennis influenced other aspects (parts) of your life?

Kristi: My college tennis experiences helped me to compete in the Deaflympics twice. I'll never forget that our first doubles match that my partner and I played was against my coach and assistant coach!!!! I wanted to compete against new players from other countries, but here I was playing for Canada against my own coach in USA!!!! That was unfair. I could not believe it, because the coach knew my weaknesses and strengths. So my doubles partner and I lost our first match. But in singles, I beat Japan so that made me feel better.

My tennis experiences taught me that "it's not the end of the world." I would go back and try again. This happened when I was told that I could not get a MA degree at a hearing university. I asked my major professor what I need to do to succeed. He told me that I need to add another major and then another. Finally I graduated with a MA degree. When the lousy weather stops me from climbing mountains, I go back at another time and try again. "Sometimes mountains conquer me, sometimes I conquer mountains."

6. What suggestions do you have for tennis instructors or coaches who work with Deaf individuals?

Kristi: Not many hearing instructors or coaches are willing to make sufficient changes

needed for Deaf players. They said it was too expensive to hire interpreters, and they cannot afford to pay for that. Hearing culture comes with their hearing attitudes, and it is impossible to change their ways. I would insist that tennis instructors or coaches hire ASL interpreters while they work with Deaf tennis players.

### **Deaf Tennis Interview**

Robbie: What is it like playing tennis?

Kristi: I enjoyed playing each game, using different strategies. I enjoyed the whole process of learning the game of tennis daily.

Robbie: What is or was your most memorable tennis experience?

Kristi: My most memorable tennis experience was playing on the university women's tennis team. The girls on the team were from different countries besides USA. We had a team bond. We came together as a team to win for the university with a great Deaf coach.

Robbie: Can you share more about your experiences playing on the university women's tennis team? What was your most challenging match? most enjoyable or exciting match?

Kristi: I remember I played singles with a really good player from a different team. We played 7 teams in a tournament. I worked my way to the finals after playing 3 sets. I was now in the top bracket finals of the tournament. The hearing girl beat me in the first game. Although I was playing hard, she still beat me again and again. I was still trying hard. But when she scored 5-0, some of my teammates told me "Don't give up, think strategy, you can, you can!" All of a sudden, adrenaline kicked in. I changed my tactics and dropped balls just short in front of her. This made my opponent to become frustrating. I did this again and won my first game in the finals 1-5. I could see my teammates supporting me by showing their high spirit. I won another game, then another and ended up winning 7-5 to help my team place 3rd out of 7 university teams.

Robbie: What got you to pursue tennis?

Kristi: I like to win. The more I play, the better I got. Continued to play and win! I enjoyed it!

Robbie: Is there anything else you would like to add that should be included in this study?

Kristi: Tennis was my first sport at the Deaf school. I became really interested in tennis

and wanted to play longer. Playing tennis for the university women's team and competing in the Deaflympics was a challenge. Afterwards I played on the hearing tennis team in the USTA league. Then I hurt my right shoulder. I had to stop playing tennis, but still enjoy watching the game. I really miss playing tennis.

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### **Narrative 7: Kody**

#### **Deaf Tennis Experience Questionnaire**

1a. In order of their importance with most important first, please list three individuals who have influenced your interest in playing tennis. (e.g., parent, sibling, friend, instructor, coach, or professional tennis player)

Kody: 1<sup>st</sup> - Friends

2<sup>nd</sup> – Father

3<sup>rd</sup> – Coach – He had much patience with me and my friend every afternoon after the school.

1b. What have you learned from each of them?

Kody: My friends made me very competitive. Father always was glad to give up his time to play tennis with me every evening. I appreciated it very much. Coach had much patience with me and my friend every day after school. I did not agree with the type of game I learned from him on how to keep the ball in play, but he wanted to see us to success. We often watched tennis matches on television and shared our thoughts about the matches. We learned from the mistakes we made. Later on I developed a skill called topspin and loved to use it. In one match against a hearing player, I tried everything on how to beat him. He was so good. Finally, I decided to hit high topspin balls to his backhand side. Then he hurt his wrist and decided to withdraw from the match.

2. What motivated you to play tennis?

Kody: Friend, father, and my coach motivated me to play tennis. I fell in love with tennis.

3. Give some examples of what you do or did to improve your tennis game?

Kody: In the past, I did not practice on my serves. I just warmed up hitting the balls for a

while, and then played the matches. Later I realized that I needed to improve on my serves. I practiced one hundred serves everyday including flat, slice, and topspin. At the college, I learned how to hit topspin. I loved it.

4. How important is or was the tennis team as a social group for you? Why?

Kody: I always enjoyed being with my tennis team. We always had fun on the road trips. We shared funny stories while we ate at the restaurants. One player often farted in the van. It smelt so bad. He laughed about it. On some road trips, he mooned at other cars. We would laugh so hard.

5. How have your experiences in tennis influenced other aspects (parts) of your life?

Kody: It helped me learn about individual sports. In individual sports, you have nobody to blame for the loss except yourself. It helped me to deal with others whether I like it or not.

6. What suggestions do you have for tennis instructors or coaches who work with Deaf individuals?

Kody: They should make it fun, and make them eager to play. Don't give them too much pressure. Learn sign language!!!

### **Deaf Tennis Interview**

Robbie: What is or was it like while playing tennis?

Kody: I never got bored of playing tennis while I was in high school and college. I played about 4 hours a day while I was in high school. At that time, I never felt like I was burned out. I just loved to play tennis. It could make me feel so emotional and competitive. I usually was a cool person, but tennis can make me so emotional. I loved that. I played tennis about 5 or 6 hours a day at one summer before the tryouts. It was so hot and humid. You might think that my friend and I were crazy playing under this condition, but we loved tennis so much. We took short breaks going inside a dorm to drink water. I was in a very good shape that summer. I missed those old days.

Robbie: What is your most memorable tennis experience?

Kody: At the tryout, I played very well in most of the robin round matches. Some players

were frustrated playing against me because I kept on passing them when they rushed to the net. I made them run and run. They felt that they couldn't compete with me. I won the berth to be on the USA Tennis Team to compete at the World Games for the Deaf.

Robbie: Is there anything else you would like to add that should be included in this study?

Kody: I wish many more Deaf schools would have tennis teams. If so, more Deaf players from Deaf schools would be on the tennis team to play at the Deaflympics. I guess about 3 Deaf schools in the USA have a tennis team.

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## **Narrative 8: Catherine**

### **Deaf Tennis Experience Questionnaire**

1a. In order of their importance with most important first, please list three individuals who have influenced your interest in playing tennis. (e.g., parent, sibling, friend, instructor, coach, or professional tennis player)

Catherine: My friend, coach, and brother

1b. What have you learned from each of them?

Catherine: I learned how to be a good individual and team player. I learned that following the rules in turn helps make you a better player. Also, I learned to have good sportsmanship.

2. What motivated you to play tennis?

Catherine: I liked the challenge of the game and I enjoyed the strategies that came with it.

3. Give some examples of what you do or did to improve your tennis game?

Catherine: Like they said, "Practice makes perfect."

4. How important is or was the tennis team as a social group for you? Why?



Catherine: I enjoyed creating new relationships with my team members. As a group we helped and cared for each other on and off the court.

5. How have your experiences in tennis influenced other aspects (parts) of your life?

Catherine: Through my experiences, I've gained more confidence in my actions. I learned that making a mistake won't hurt you if you try to do everything you can to fix it.

6. What suggestions do you have for tennis instructors or coaches who work with Deaf individuals?

Catherine: Deaf players are the same as hearing players, maybe even better because one of their senses is gone, therefore enhancing their vision.

### **Deaf Tennis Interview**

Robbie: What is or was it like while playing tennis?

Catherine: Playing tennis gave me joy and confidence. I always loved to play the sport because it made me feel good.

Robbie: What is your most memorable tennis experience?

Catherine: When I won the Maere Cup and my journey and participation in the Deaflympics.

Robbie: Can you share more about your experiences involving the Maere Cup? How were you able to win the match or matches to capture the Maere Cup?

Catherine: First of all, it was great experience to be on the USA team competing in the Maere Cup for fifth time. I was the first one to win the Maere Cup. It was a surprising and thrilling experience. I stuck to my game plan, and continued to win by using my strategy. I learned how to communicate with players from different countries and languages. I became interested in their different cultures. I never forgot how they treated us wonderfully - they gave us a tour everywhere and provided a lot of food. I enjoyed my journey.

Robbie: What was the turning point for you to really get involved in the game of tennis?

Catherine: I disliked being a team player so I looked for an individual sport that I could play. One of my friends asked me to play tennis. At first, I didn't understand the rules because I attended an all-hearing school. I eventually learned more about it and fell in love with tennis. The game gave me more challenges and taught me different strategies. It also made me very aggressive. As I played every day, my skills greatly improved. I enjoyed the tennis team touring all the cities we played in. When I went to Gally, I had no clue about the Deaflympics and Maere Cup. I am glad that I was involved in all of these events.

Robbie: Is there anything else you would like to add that should be included in this study?

Catherine: Yes, I think there should be more camps for Deaf people to get involved in sports. I also think that there should be more lessons for Deaf players.

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### **Narrative 9: Arthur**

#### **Deaf Tennis Experience Questionnaire**

1a. In order of their importance with most important first, please list three individuals who have influenced your interest in playing tennis. (e.g., parent, sibling, friend, instructor, coach, or professional tennis player)

Arthur: Friend, professional tennis players, college tennis players.

1b. What have you learned from each of them?

Arthur: My friend told me that tennis is not as easy as it looks. I learned from a college player that you can be as good as you want to be if you practice just as hard. A professional player advised me to copy the form of others, and then developed my own style and added ways to be more aggressive.

2. What motivated you to play tennis?

Arthur: I had assumed it was a sissy's sport and could be easily played – until I actually played it myself and realized differently. That got me hooked and determined to become skilled and proficient at this sport.

3. Give some examples of what you do or did to improve your tennis game?

Arthur: I watched any tennis game on TV or live. Also I talked with skilled players about their game strategies. I read tennis magazines, and tried to play or practice hitting as much as possible. Once my skill started to improve, it only drove me to play more. I kept hitting the ball and see how much better I can be or to develop a new better skill. For example: To develop a better “kick” serve, to make drop shots and lobs almost anywhere, and work on developing an offensive lob as well as a defensive lob.

4. How important is or was the tennis team as a social group for you? Why?

Arthur: While I did not have the enjoyment of social tennis due to my deafness, it was important enough that I knew it could be a point of enjoyment with others with whom I could communicate or socialize with. My tennis team also gave me support whether I was winning or losing. I was a confident booster. Lucky for me, I won more than I lost, but I was also one of the strongest team supporter and player for just about every team I played for even when I was a developing player and improving my game. I was also a motivator for others when they saw and felt the energy that I produced for them.

5. How have your experiences in tennis influenced other aspects (parts) of your life?

Arthur: Very influential because it helped me to develop self-confidence, and believe in myself as an independent individual.

6. What suggestions do you have for tennis instructors or coaches who work with Deaf individuals?

Arthur: Just make them hit many balls. Many! Many! Be sure to include form and technique as part of that practice while hitting balls. They need to let their body react instead of thinking to react, thus the need to hit many balls. Also, playing points or making practice challenging would be encouraging for the Deaf individual. Also, adding some fun every now and then. The coach needs to encourage much practice, as the development of this sport has to come from the individuals themselves.

### **Deaf Tennis Interview**

Robbie: What is or was it like while playing tennis?

Arthur: For me, it was always enjoyable playing, constructing a point, and trying to figure a way to win or close the match. Or fight back.

Robbie: What is your most memorable tennis experience?

Arthur: Playing a men's doubles match and down a set and double match points against my serving. Then my partner didn't put away an easy shot, but the other player made an error as well. The next point I served was an ace and we won that game. Then, we eventually went on to win that match. It completely made a believer out of me, that comebacks are possible, regardless of the situation that you find yourself.

Robbie: What was the turning point that really got you to pursue tennis?

Arthur: My own personal thought that tennis was an easy sissy game and that anyone could hit a ball over the net until I tried and failed. From that point on, I was determined to be as good like I thought the game should be played. Then, I fell in love with tennis and have stayed with this game.

Robbie: Is there anything else you would like to add that should be included in this study?

Arthur: While I had a late start in tennis and because of my own negative attitude towards it once I started, I was not aware that there was an Olympic sport for Deaf individuals. In fact, had I known that there was serious competition among Deaf individuals; I would have gotten involved much sooner instead of in my late thirties, 39. There is a need for advertisement or announcement on competition in many different sports for Deaf individuals, such as at the schools that have a Deaf education program, or special Deaf events, ASL programs or NAD, DeafNetwork, or hearing aid businesses, etc.

## Appendix K: Category Questions: CRQ, SQ, DTPQ, DTEQ, DTVI

**Flow Experience:****CRQ: What is the role of playing tennis in the lives of Deaf individuals?**

(DTPQ PI#2) How many years have you played tennis?

(DTPQ PI #3) What level of playing experience have you had?

(DTEQ #5) How have your experiences in tennis influenced other aspects of your life?

(DTVI #1) What is or was it like while playing tennis?

(DTVI #2) What is your most memorable tennis experience?

**Exposure:****SQ1: How do Deaf individuals become exposed to tennis?**

(DTPQ PI #1) How old were you when you learned to play tennis?

(DTPQ PI #11) How did you find out the Deaflympics or World Deaf Tennis Championships?

(DTEQ #1a) In order of their importance with most important first, please list three individuals who have influenced your interest in playing tennis.

**Learning:****SQ2: What are the learning opportunities for Deaf individuals in tennis?**

(DTPQ PI #4) How did you learn to play tennis?

(DTEQ #1b) What have you learned from each of them?

(DTEQ #3) Give some examples of what you do or did to improve your tennis game?

**Motivation:**

**SQ3: What are the underlying motivations for Deaf participants' engagement in tennis?**

(DTEQ #3) What motivated you to play tennis?

(DTVI #3P) What made you to get involved or pursue the game of tennis?

**Interaction:**

**SQ4: How does tennis competition impact Deaf participants?**

(DTPQ PI #8) Have you ever played on a hearing team?

(DTPQ PI #9) Have you ever played on a Deaf team?

(DTEQ #4) How important is or was the tennis team as a social group for you? Why?

**Suggestions:**

**SQ5: What suggestions do the participants have for tennis instructors and coaches who work with Deaf individuals?**

(DTEQ #6) What suggestions do you have for tennis instructors and coaches who work with Deaf individuals?

## Appendix L: Summary of Themes

**Summary of Themes**

| Theme  | DTPQ | DTEQ | DTVI |
|--|------|------|------|
| Tennis influencing other aspects in your life      |      | X    |      |
| Affective reaction while playing tennis            |      |      | X    |
| Most memorable tennis experience                   |      |      | X    |
| Learning from individuals who influenced your game | X    |      |      |
| Improving your game                                |      | X    |      |
| Underlying motivations to play tennis              |      | X    |      |
| Pursuing the tennis game                           |      |      | X    |
| Importance of tennis team as a social group        |      | X    |      |
| Suggestions for instructors and coaches            |      | X    |      |

## Appendix M: IRB Approval

**Subject :****Date :** Tue, Jul 09, 2013 02:39 PM CDT**From :** [IRB <IRB@waldenu.edu>](mailto:IRB@waldenu.edu)**To :** ["robbie.carmichael@waldenu.edu" <robbie.carmichael@waldenu.edu>](mailto:robbie.carmichael@waldenu.edu)**CC :** [Walden University Research <research@waldenu.edu>](mailto:research@waldenu.edu), [Sigrin Newell <sigrin.newell@waldenu.edu>](mailto:sigrin.newell@waldenu.edu)**Attachment :**  [Carmichael Consent Form.pdf](#)

Dear Ms. Carmichael,

This email is to notify you that the Institutional Review Board (IRB) has approved your application for the study entitled, "Learning Experiences of Deaf Individuals in Tennis."

Your approval # is 07-09-13-0088904. You will need to reference this number in your doctoral study and in any future funding or publication submissions. Also attached to this e-mail is the IRB approved consent form. Please note, if this is already in an on-line format, you will need to update that consent document to include the IRB approval number and expiration date.

Your IRB approval expires on July 8<sup>th</sup>, 2014. One month before this expiration date, you will be sent a Continuing Review Form, which must be submitted if you wish to collect data beyond the approval expiration date.

Your IRB approval is contingent upon your adherence to the exact procedures described in the final version of the IRB application document that has been submitted as of this date. If you need to make any changes to your research staff or procedures, you must obtain IRB approval by submitting the IRB Request for Change in Procedures Form. You will receive confirmation with a status update of the request within 1 week of submitting the change request form and are not permitted to implement changes prior to receiving approval. Please note that Walden University does not accept responsibility or liability for research activities conducted without the IRB's approval, and the University will not accept or grant credit for student work that fails to comply with the policies and procedures related to ethical standards in research.

When you submitted your IRB application, you made a commitment to communicate both discrete adverse events and general problems to the IRB within 1 week of their occurrence/realization. Failure to do so may result in invalidation of data, loss of academic credit, and/or loss of legal protections otherwise available to the researcher.



Both the Adverse Event Reporting form and Request for Change in Procedures form can be obtained at the IRB section of the Walden web site or by emailing [irb@waldenu.edu](mailto:irb@waldenu.edu): <http://researchcenter.waldenu.edu/Application-and-General-Materials.htm>

Researchers are expected to keep detailed records of their research activities (i.e., participant log sheets, completed consent forms, etc.) for the same period of time they retain the original data. If, in the future, you require copies of the originally submitted IRB materials, you may request them from Institutional Review Board.

Please note that this letter indicates that the IRB has approved your research. You may not begin the research phase of your dissertation, however, until you have received the **Notification of Approval to Conduct Research** e-mail. Once you have received this notification by email, you may begin your data collection.

Both students and faculty are invited to provide feedback on this IRB experience at the link below:

[http://www.surveymonkey.com/s.aspx?sm=qHBJzkJMUx43pZegKImdiQ\\_3d\\_3d](http://www.surveymonkey.com/s.aspx?sm=qHBJzkJMUx43pZegKImdiQ_3d_3d)

Sincerely,  
Jenny Sherer, M.Ed., CIP  
Associate Director  
Office of Research Ethics and Compliance  
Email: [irb@waldenu.edu](mailto:irb@waldenu.edu)  
Fax: 626-605-0472  
Phone: 612-312-1341  
Office address for Walden University:  
100 Washington Avenue South  
Suite 900  
Minneapolis, MN 55401

## Appendix N: Audit Trail

**AUDIT TRAIL****Learning Experiences of Deaf Individuals in Tennis: A Narrative Inquiry****Robbie Jane Carmichael**

This audit trail outlines the steps I have taken to collect and analyze the data for this narrative research study.

**Collection of Data***Participants*

- A. Facilitator of USA Deaf Tennis, a closed e-group of 60 members under Facebook, was contacted.
- B. Flyer was posted inviting the members this closed e-group to participate in this study. The purpose of this research in addition to the selection criteria and their voluntary role in this study were outlined.
- C. Received email from 11 individuals who were interested in participating in this study. The informed consent was sent via email. Nine individuals signed the consent form.
- D. The two questionnaires were conducted online. Upon completion of both questionnaires, an interview conference was arranged at the participant's convenience. Confirmation of the interview date was emailed to each individual.

*Questionnaires 1& 2*

- A. All nine participants completed the questionnaires 1 and 2.
- B. The following is a list of participants and the date they completed the questionnaires:

| Participant (Pseudonym)   | Completion of Questionnaires 1 & 2 |
|---------------------------|------------------------------------|
| Participant 1 – Cameron   | 09/22/2013                         |
| Participant 2 – Josh      | 09/23/2013                         |
| Participant 3 – Sami      | 09/24/2013                         |
| Participant 4 – Liz       | 09/25/2013                         |
| Participant 5 – Nick      | 09/25/2013                         |
| Participant 6 – Kristi    | 09/26/2013                         |
| Participant 7 – Kody      | 10/20/2013                         |
| Participant 8 – Catherine | 10/25/2013                         |
| Participant 9 – Arthur    | 12/04/2013                         |

*Interviews*

- A. All nine participants partaken in an interview.
- B. The participants' transcripts were emailed to them for their approval or changes as needed. The revised transcripts were sent back to the participants for their final approval.
- C. The following is a list of participants and the date they were interviewed:

Interviews:

| Participant (Pseudonym)   | Interview  |
|---------------------------|------------|
| Participant 1 – Cameron   | 10/04/2013 |
| Participant 2 – Josh      | 10/05/2013 |
| Participant 3 – Sami      | 10/07/2013 |
| Participant 4 – Liz       | 10/06/2013 |
| Participant 5 – Nick      | 10/08/2013 |
| Participant 6 – Kristi    | 10/08/2013 |
| Participant 7 – Kody      | 11/15/2013 |
| Participant 8 – Catherine | 11/02/2013 |
| Participant 9 – Arthur    | 12/07/2013 |

## CURRICULUM VITAE

Robbie Jane Carmichael  
[robbie.carmichael@gallaudet.edu](mailto:robbie.carmichael@gallaudet.edu)

### EDUCATION

- Currently in a doctoral program in Education at Walden University, Minneapolis, MN  
Specialization: Physical Education and Recreation
- M.A., Gallaudet University, Washington, DC, May 1981  
Major: Deaf Education
- B. S., Summa Cum Laude, Valedictorian, Gallaudet University, Washington, DC, May 1979  
Major: Physical Education; Minor: Biology.

### WORK EXPERIENCE

- Assistant Professor (promoted to present rank in 1992). Department of Physical Education and Recreation, Gallaudet University, Washington, DC, August 1987-present
- Assistant Aquatic Director. Department of Physical Education and Recreation, Gallaudet University, Washington, DC, September 1984-2008
- Head Coach; Women's Tennis Varsity Team: 15 years, October 1981-1998; Athletic Department, Gallaudet University, Washington, DC.
- Instructor; 2 years, August 1985-87; Health and Physical Education Department, School of Preparatory Studies, Gallaudet University, Washington, DC.
- Assistant Coach, Women's Field Hockey Varsity Team; 8 years, September 1979-87; Athletic Department, Gallaudet University, Washington, DC.
- Instructor; 4 years, August 1981-85; Physical Education Department, Model Secondary School for the Deaf, Washington, DC.

### SCHOLARSHIP/CREATIVE ACTIVITY/RESEARCH

- Participant, eCurriculum Course, Gallaudet University, June 2009
- Participant, PST95-OL2 Online Course Development for Instructors, Gallaudet University, May 2010
- Participant, Department workshops, revising course outlines to Gallaudet University's Student Learning Outcomes and Assessment
- Manual, Gallaudet University Lifeguard, updated September 2009
- CUE Proposal, Council of Undergraduate Education, Recreation and Sports Programming curriculum, approved May 2009
- Report, revised and updated Accreditation Self-Study Report, NRPA-AALR, June-September 2007
- CUE Proposal, Council of Undergraduate Education, Recreation and Leisure Studies curriculum, approved May 2006.
- Faculty Development Grant, Attendance at 4<sup>th</sup> International Conference on Deaf History & The American Deaf Community: Diversity and Change, Gallaudet University, Washington, DC, 2000.

### PROFESSIONAL SERVICE AND INVOLVEMENT

#### University/Department Service

- Scheduler, For all physical education and recreation courses offered Fall & Spring semesters
- Project, Development of Physical Education and Recreation Handbook/ehandbook

- Mentor, Physical Education and Recreation students and alumni
- Advisor, Recreation and Sports Programming Majors and Minors
- Evaluator, Evaluation Committee for other Department Faculty Member
- Chair, committee for Physical Education and Recreation Tenure-Track position
- Assistant, Integrated Physical Education and Recreation Major Curriculum 2011
- Presenter, for two retirees from our department, April 2010 & 2011
- Co-Coordinator, Program Prioritization Task Force (PPTF); Recreation and Sports Programming 2009-2010
- Presenter, Gallaudet University Awards Day, Dorothy Hamberg Memorial Leadership Award, April, 2010
- Presenter, Gallaudet University Internship Hall of Fame Award, April 2010
- Participant, Physical Education workshops on NCATE and NASPE materials
- Manual, Gallaudet University Lifeguard, revised September 2007
- Proposal, revised undergraduate curriculum in recreation and leisure studies, October 2005
- Self-Study Program Review, University Aquatics Program, December 2002
- Committee Member, Deaf Way II – Recreation, Sports, and Leisure, 2001-02.
- Committee Member, Outdoor Pursuits Minor Proposal, 1993-94.

#### **Outreach Service**

- Evaluator, Interpreters for Southern Maryland Interpreting Service
- Mentor, Southern Maryland Deaf Advocate, IEP meetings, crisis & disasters
- Facilitator, Recreational and Instructional Tennis Programs for the Deaf
- Recipient, Washington Tennis Education Foundation, umbrella of USTA, Tennis 1-2-3 Program, received 36 rackets, 2 portable nets, and 3 cases of balls in 2000, and 2 cases of balls in 2002
- Volunteer, USA Team/Deaflympics Training, Gallaudet University, July 2001.
- Director, National Deaf Tennis Championships, Springfield, Ohio, August 2000.
- Recipient, Player Development, USA Deaf Sports Federation and USOC, received 3 separated funds to support the USA Deaf Tennis Team at the 1999 World Deaf Championships, individualized development training in 2000, and USA Tennis Team 4-day intensive training in 2001
- Curriculum Team Evaluator, Access Nature sponsored by National Wildlife Federation, a 3-year grant by the Department of Education
- Representative, Monthly SOMD Deaf Community Meeting, resources for Deaf community

#### **PUBLICATIONS**

- Contributor, write-up (July 2007). *High point of persistence: Miriam Richard's story.* [www.lulu.com](http://www.lulu.com), 33-34.
- Article, Carmichael, R. (Spring, 2003). Praise for Our People, Dear Civista. *Civista Today*: 9(2), 13.
- Project, Curriculum Team Evaluator/Advisory Board Member, *Access Nature* published in 2001 (sponsored by National Wildlife Federation from a 3-year grant by the Department of Education).
- Article, Carmichael, R. (1999, August). Pfaff and Dzaupas captures Gold at USDG '99. *DeafNation* Web Page. Webby Nation, Inc.
- Article, Carmichael, R. (1999, May). US Deaf Tennis Association. *Silent News*, 31(8), 12.
- Compiled a list of signs and their descriptions for use by the U.S. Tennis Association in connection on their new book, *Teaching and Coaching to the Handicapped*. (1986, May).

- Class project printed in *Speechreading: A Way to Improve Understanding*. (Ch. 7) by Harriet Kaplan, Scott Bally, and Carol Garretson. Gallaudet Press (1985).

#### **CERTIFICATION STATUS**

- CED/Council on Education of the Deaf, Provisional, May 1981.
- WSI/Water Safety Instructor, American Red Cross, May 1978 – present.
- CPR Instructor, American Red Cross, May 1981- present.
- Standard First Aid/ Community First Aid Instructor, American Red Cross, May 1982 – present.
- CPR / First Aid / Automated External Defibrillation (AED) Instructor, May, 2001 – present.
- Wildlife/Forestry Conservation, School of Conservation, February 1999.

#### **HONORS AND AWARDS**

- Certificate of Appreciate Award, USA Deaf Sports Federation, 1997-2001.
- Certificate of Appreciation, US Professional Registry, Associate Instructor, 1986-2000.
- Wildlife/Forestry Conservation Diploma, ICS Learning Systems, February 1999.
- Professional Tennis Registry Commemorative Award (10 years) 1995.
- Athletic Hall of Fame Inductee, Gallaudet University Athletics, 1995.
- Coach's 50<sup>th</sup> victory, Gallaudet University Women's Team, 1995.
- Coach Appreciation Award, Gallaudet University Athletics, 1994.
- Coaches Award, Gallaudet University Athletics, 1992.
- Betty Miller Scholarship Award, National Alumni of Delta Epsilon Sorority, 1989.
- Kappa Delta Pi Honor Society in Education, 1988.

#### **MEMBERSHIP**

- American Red Cross, National Capital Branch, Volunteer Instructor for the Deaf
- U.S. Tennis Association, Referral Director for the Deaf
- World Recreation Association of the Deaf
- USA Deaf Sports Federation – USA Deaf Tennis
- National Alumnae of Delta Epsilon Sorority