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A Case Study: An Andragogical Exploration of a Collegiate Swimming and Diving
Coach's Principles and Practices at Lindenwood University

by

Hannibal Najjar

A Dissertation submitted to the Education Faculty of Lindenwood University

in partial fulfillment of the requirements for the

degree of

Doctor of Education

School of Education

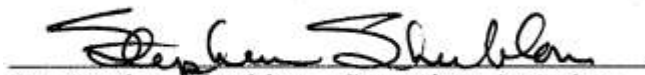
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This dissertation has been approved in partial fulfillment of the
requirements for the degree of
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at Lindenwood University by the School of Education


Dr. John Henschke, Dissertation Chair

4/25/17
Date


Dr. Stephen Sherblom, Committee Member

April 25 2017
Date


Dr. Ryan Guffey, Committee Member

4-25-17
Date

Declaration of Originality

I do hereby declare and attest to the fact that this is an original study based solely upon my own scholarly work here at Lindenwood University and that I have not submitted it for any other college or university course or degree here or elsewhere.

Full Legal Name: Hannibal George Najjar

Signature: _____

A handwritten signature in black ink, appearing to read 'H. Najjar', written over a horizontal line.

Date: Tue Apr. 25th 2017

Dedication

This dissertation component of my EdD is one that descends and rises from the deepest parts of my soul. It is the humbling pride of all of my educational accomplishments. I dedicate it to my precious parents, when they were able to physically touch me and now, spiritually bless me. To my wonderful wife, friend, girlfriend, wind-beneath-my-wings inspiration, and supreme confidante, for without your support and guidance, I would not have made this leap or accomplishment. You also provided a tempering of my pen, but never will anyone contain the freedom of my mind – one’s imagination can go where no other can follow. You are a blessing from God and 47 years of being together is that testament. To my four caring children, all of whom your mother and I are very proud of – now, all educated professionals and three with blessed-from-God spouses - thanks for letting me be part of your lives. To my five God-sent grandchildren, I hope you will remember the examples left to you and let them be an encouragement for you to soar even higher. I would also like to dedicate this study to the underserved and “left for dead” of this world - you are of consequence! Following the Acknowledgements, is, my prayerful poem-appeal to my Lord for those many of you plagued with never-ending Storms and Showers – indeed, “nobody is, a nobody; everybody is a somebody,” and those words are for you. I also reach to touch the minds of great but truly inspirational leaders like, Lebanese born American poet, Kahlil Gibran’s insightful of words to us, educators – “If the teacher is indeed wise he does not bid you enter the house of wisdom, but rather leads you to the threshold of your own mind”; Nelson Mandela for his conveyances of peace and reconciliation during his trials and climbs; Mahatma Gandhi for his charge that we “be the change we wish to see,” and

Mother Theresa, for her always-present and awe-inspiring smile and reminding words that, “everybody is Jesus in disguise.” Finally, to my Lord and Savior, Jesus Christ, thank You for Your guiding spirit and to You I dedicate this and every other achievement I have ever accomplished and those that I am about to undertake – keep me honest and forever focused on achieving those Shining Light awards, ones that tell, “let my light so shine that others would see the good works but give glory to God in heaven” (Matthew 5:16). I am further encouraged as a, servant-leader, to “act justly, love mercy, and walk humbly with my God” (Micah 6:8). And finally, thank You for taking me to the threshold of love, the feet on which wisdom’s legs walk – forgiveness. On a certain day in early 1980, You taught me forgiveness in a way that gave me a freedom to live and love abundantly and was the day that began to shape the rest of my life, forever. In 1993, after many walks with the Father of forgiveness, I penned two lines that have since brought me closer and more in tuned with Your purest self. Following the poem, Storms and Showers, are those two lines and they depicting the art and science of helping adults and children learn, for He said, “Truly, I say to you, unless you turn and become like children, you will never enter the kingdom of heaven. Whoever humbles himself like this child, he is the greatest in the kingdom of heaven” (Matthew 18:3-4).

Acknowledgements

A most wholehearted thanks goes out to my Adult Education Professor, Advisor, and Committee Chair, Dr. John Arthur Henschke. Thanks for the enthusiastic sharing of your “walking-library” experience and a memory that is the envy of anyone that seeks knowledge. Whether in the classroom, the hallways, over some coffee or the phone, socializing in a restaurant together or with our respective families, you have never once not shown to be a true fighter for the “art and science of helping adults learn,” by definition, Andragogy. You are the last standing “Mohican,” living legend, that came out of the direct charges of, this side of the Atlantic, Andragogy Trojan, Malcom Knowles. And, to have you as my teacher, committee chair, friend, and brother in Christ make me lucky as it does, a willing member of Andragogy’s baton-passing relay team. And lastly, Dr. Henschke, thanks for granting me, your protégé, the, permission to disagree with you, though, sometimes not without a fight, and even, presenting refutations and suggestions that only an accountability partner is afforded. I am also very grateful for the support and guidance I have received from my two other committee members, first, Dr. Stephen Sherblom, who allowed me to be even more confident in my passion to continue learning, growing, and exploring new ideas. Dr. S., thank you also for staying “tall” in your suggestions yet letting me enter a gradual but true friendship with you. Second, Dr. Ryan Guffey, I say thank you too for making the team of my committee members, one that is the envy of many. You have provided a scintillating and sport-minded youthfulness to the team that has guided my efforts and were always eager to give an exciting hope to my pursuits in this dissertation project and beyond, as with Dr.

Sherblom. I believe Dr. Ryan, we would have had an explosion of successes had I been your soccer coach at Lindenwood. A very sincere thanks to all of you for devoting your time, sharing ideas, and, giving me the freedom to responsibly own my project, but more so, my thoughts. With extreme gratitude, I also express my appreciation to Dr. Susan Isenberg for all your encouragement and easy-to-understand publications. And, to Dr. Robyne Elder I extend my thanks for the manner in which you entered my life as with Lindenwood as a new faculty member and embraced everything with that gracious smile and welcome. Your patient editing and numerous helpful and professionally astute suggestions have not gone by unnoticed.

How can I not include in this acknowledgement, the life-long learner, in her ripe-young mid-80's age who gave me inspiration as she climbed those many stairs, attended her every class, travelled exceeding distances to Illinois, and never without a smile – Jean Ann Eckert. And yes, Jean, you are welcome to stay at my wife's and my nearby home whenever there is inclement weather or just, if you feel to – no more driving in the late night snow!

To Dr. Sherrie Wisdom, wow! Andragogy is adamant that the facilitator must at least show traits of trust, empathy, sensitivity, and humaneness – well, Dr. Wisdom, you are a true andragogue. Thanks for your hard work, not only on my journey, but for those many others that I have come to understand that have been sent your way and you so selflessly and wholeheartedly attended to. Thanks for assisting me to meet my targeted goals, which have allowed me to be where I am today, at the finish line. You are greatly appreciated.

To Coach Owen, it was an extreme pleasure to be there, seeing you in various situations but particularly, when in your direct company sharing with you the central purpose of this study, and then witnessing your honest and timely partaking in the questionnaire, survey, observations, and focus group discussions. Your willingness to be honest and free in all of our collaborations, displayed strength and confidence in your student-athletes to participate in their sport but more so, this study, and instant readiness to embrace the principles and practices of Andragogy, were valued – you will be bountifully rewarded for embracing this philosophy in your coaching. The potential that you saw it can have on you as a swimming and diving coach is a testament to your fearlessness to be a part of new and empowering teaching-learning educational models. Hopefully, soon, you will be a part of Athlitigogy (Athlitis - Greek for athlete) the fetus of Andragogy, and is herein defined as is the art and science of helping athletes learn, by increasing their cognitive, affective, psychomotor, and social, servant leadership, and spiritual skills and abilities (CAPS). Without each of you in this Acknowledgement, this pioneering study, as it is said to be, would not have been possible.

The Story Behind “Storms & Showers”

Here lies a poem that was written in very quick time, kneeling at my bed following an early morning walk through the misty gardens of The FA's Lilleshall National Training Center in the Midlands of England. The Bust, undisturbed but for my stare, quietly seated on the pedestal and amidst the awesome shrubbery, trees, flowers, pathways, small mazes, and many species of frolicking birds, showed a man's face with the inscription beneath it, Storms and Showers. That touched me deep in my soul and led me straight to my room as I wanted to capture in words what his face, eyes, and message conveyed. I went to The FA for football edification and sharing of ideas, cultures, and to promote the universal brotherhood, through the “Beautiful Game” to/of all humankind. I got all that, always-to-be-cherished-and-remembered experience, but the “pink” diamond of it all was, the effect of that morning and the, in-soul exudes of the bust. Here is the result.

Storms & Showers

Many a life are filled with storms and showers
I thank You God for my sunny hours
Their lives are cold, barren, and without shelters
And mine, a choice of grand summers and winters

Tears and mourning are the order of their day
And carefree am I, come what may
Rags and bloodstains, to them, seem destined to stay
And for me, such things are far, far away

Cries of pain, broken bones, and last breaths
Famine, diseases, and many of life's threats
Yet, I see only joyfulness and plenty
In my life that is very full and healthy

I do not wish to lose my position
It's just God, I need an explanation
Why are these lives in shambles forever
And for others, such things are never

Still, I thank You God, for all that is mine
My life and my family, we are all thine
Continue to guard and protect us always
But please, please God, for those others, bring brighter days

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Forgiveness

When you open that oven door, and,
Comes out of the furnace burning no more.

Copyright© Hannibal Najjar October, 1993

All of my life, I seemed to have had an understanding that forgiving people and asking for forgiveness was a part of my everyday eat, sleep, and play, life. Age brought a kind of “wisdom” that hardened that process. And, the older I got the more the notion of forgiving on whichever side of the aisle it was on, the more I found myself calculating and measuring. Then in the beginning of 1980, at 26 years of age, forgiving knocked on my door, challenging me to render such, and though very hard to proceed with that most trying journey, God broke my back of resistance and, a, calm charmed me releasing from that mummy-wrapped bondage. It was His Holy Spirit, before me that brought an understanding tranquility to me. It was like surfacing after being anchored to the sea floor. Forgiveness said hi, and I, “hied” back!

Then in 1991, at about 37, I penned the two-liner that is, this poem. I saw that a person could only claim to have forgiven, and appreciate receiving same in return, reached the altar of true and absolute humility, when s/he is able to visit that once traumatic hurt, that pain that wears heavy and provokes their peace, when s/he meets face-to-face with that once fissiparous incinerating hurt, and there is burning no more – free-flying and with the wind behind them.

Absolutely, we will visit that pain, and other such, as memories are uncontrollably and randomly brought back – that oven is going to draw near to you or, spark your attention. You will visit that oven and its door, often, never of your own doing. You do not plan for it, happenstance plans for you. You shall have face-to-face encounters with that wished-to-be-forgotten, stealth, because, eradication is never an option. Aftershocks of these visits will come and go, but being the conqueror of that hurt and conductor of forgiveness’ orchestra, intensity is, dead. When the visit happens and that door begins its opening, forgiveness, in its fullest form, ensures well-oiled hinges - no reminding squeaks, no grating sounds, no humpy feelings, and, it guaranties a fireproof spirit that can withstand any blast. Forgiveness, in its freest form, assures and ensures that there is burning no more.

And, I am always sure to uphold the reminding fact, that, forgiveness does not equate to forgetting; for if it can be forgotten, it probably was never worth forgiving.

Abstract

Andragogy, defined as, “the art and science of helping adults learn” (Knowles, 1980, p. 43) has been used in education and organizations for more than five decades. This philosophy was examined in this study to explore to what extent Andragogy was being used, and perceived to be used, by the coach in a collegiate athletic program. Interviews, observations, and surveys of the coach, along with questionnaires, surveys, and focus group sessions of the student-athletes were used to determine whether an andragogically based coaching approach positively affected the performances and outcomes of the participants. By utilizing an adaptation of Henschke’s (1989) Modified Instructional Perspectives Inventory (MIPI) the coach’s as well as student-athletes’ perceptions of the andragogical model were examined, recorded, and scored. The coach and student-athletes were also asked to score their most important needs as a learner, using the assumptions Knowles employed to characterize the adult learner. The study concluded that although Andragogy and its principles and practices were not previously known or understood by the coach and student-athletes, there was a high degree of parity between the principles and practices of a successful sports coach and that of Andragogy. What appeared to be new revelations in concept and practice were the notions of the Learning Contract (LC) and Self-Directed Learning (SDL), both of which were being used by the coach in an informal manner. Although not categorically concluded in the study that Andragogy would guarantee better results, the coach confessed that he saw both Learning Contracts and Self-Directed Learning as a way of enhancing his approach to becoming a better coach with increased skill to help unleash the potential, responsibility, and independence of his athletes. The adoption of andragogical principles

and practices were acknowledged as an approach that could greatly add to Coach Owen's style and approach in dealing with his athletes, especially the very competitive. Future studies of this nature will be useful in promoting Andragogy and in the education of coaches.

Abbreviations

AL	Adult Learning
ASCA	American Swimming Coaches Association
CAPS	Cognitive, Affective, Psychomotor, and Social, Servant leadership, and Spiritual
CMPI	Customized Modified Instructional Perspectives Inventory
CO	Coach Owen
FA	Football Association (England's Soccer)
FEED	Facilitate, Encourage, and Empower others that they may in turn, Deliver
FIFA	Fédération Internationale de Football Association (Soccer's World Association)
IPI	Instructional Perspectives Inventory
LC	Learning Contract
LPGA	Ladies Professional Golfers' Association of America
LU	Lindenwood University
MIPI	Modifies Instructional Perspectives Inventory
NABC	National Association of Basketball Coaches
NBA	National Basketball Association
NCAA	National Collegiate Athletic Association
PGA	Professional Golfers' Association of America
PI	Principal Investigator
SDL	Self-Directed Learning
SDLRS	Self-directed Learning Readiness Scale

UEFA Union of European Football
YMCA Young Men's Christian Association

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Chapter One: Introduction to the Study

Introduction

The art and science of teaching has long been examined to find the principles that lead to the best learning. From the Greek philosophers, through the Age of Enlightenment, to our Founding Fathers, there has been a quest to discover what is, true learning, what are the conditions that best promote this, and therefore what is the best approach to teaching? In 1839, Horace Mann, while grappling with this issue, stated, “A teacher who is attempting to teach without inspiring the pupil with the desire to learn is hammering on a cold iron” (Nick Ip, 2013, para. 3). Here lies the root of the Dewey revolution in education in general, and later, the birth of the particular discipline of Andragogy. ‘In the 1950s, European educators started using the term “Andragogy” (from the Greek word *anere* for adult, and *agogus*, meaning “leader of”) to differentiate it from pedagogy (from the Greek word *paid* for child) (Knowles, 1970, p. 37). They used this term to discuss the growing body of knowledge about adult learners in parallel with pedagogy. For all intents and purposes, in pedagogy, development is based upon a content plan. Of particular importance is, the establishment of what content needs to be covered, how this content will be organized into manageable units, and, what was the most effective method for transmitting this content. In Andragogy, it is the contention that development is based upon a process whereby facilitators design and manage a process for facilitating the acquisition of content by the learners, serve as a content resource, and also provide leads for other content resources.

In 1970, Malcolm Knowles, borrowing from the work of the earlier European writers, identified Andragogy, “the art and science of helping adults learn,” (p. 38) as a distinct branch of education. He popularized its concept and intended it to be different from pedagogy. He had to face off those who presented evidence that adults do not always learn best with Andragogy and children do not always learn best with pedagogy, and that it can sometimes be vice versa. In Knowles’ 1980 work entitled, *The Modern Practice of Adult Education: From Andragogy to Pedagogy*, he conceded, in his early expositions that four of Andragogy's five key assumptions apply equally to adults and children. The sole difference is that children have fewer experiences and pre-established beliefs than adults and thus have less to which they can relate the new information. Within two decades, advancements in technology made the area of adult learning the hot-button business idea. Knowles’ characteristics of the adult learner were massaged and fortified and he added a sixth assumption. Knowles’ eight-step process (1984, 1996) was dissected and all of the right terminology appeared in the many new programs designed for adult learners.

Another prolific writer on Andragogy since 1973 was John Henschke. He was noted for his highlighting the role of trust in the andragogical process, and for his 1989 development of the Instructional Perspectives Inventory (IPI), which is utilized in this study. The IPI was “a self-reporting assessment instrument revealing philosophical beliefs as well as personal and contextual identification, actions, and competencies for guiding conduct in adult education” (Henschke, 1994, p. 75). The IPI has been used many times to provide a measure of the following seven factors identified as beliefs, feelings, and behaviors of adult educators:

- 1) Teacher Empathy with learners
- 2) Teacher trust of Learners
- 3) Planning and Delivery of Instruction
- 4) Accommodating Learner Uniqueness
- 5) Teacher Insensitivity toward learners
- 6) Experienced based learning techniques (Learner-centered learning process)
- 7) Teacher-centered learning process. (p. 75)

The measurement of these seven factors are integral to this study. Also, of prime concern to this study, is the role of trust in the athletic coaching-athlete relationship. From the beginning of time, trust has been praised as an essential ingredient for successful relationships, successful business partnerships, indeed – a successful world economy.

Andragogy places trust at the center of the facilitator-learner relationship. Henschke's IPI (1994) measures the trust between facilitator and learner on the following 11 items:

- 1) Purposefully communicate to learners that each is uniquely important;
- 2) Express confidence that learners will develop the skills they need;
- 3) Trust learners to know what their own goals, dreams, and realities are like;
- 4) Prize the learners ability to learn what is needed;
- 5) Feel learners need to be aware of and communicate their thought and feelings;
- 6) Enable learners to evaluate their own progress in learning;
- 7) Hear what learners indicate their learning needs are;
- 8) Engage learners in clarifying their own aspirations;
- 9) Develop supportive relationships with their learner;
- 10) Experience unconditional positive regard for your learners; and,

11) Respect the dignity and integrity of their learners. (p. 4)

In the last 15 years, Andragogy has spread its applications outside of the hallowed walls of universities to corporate training programs, on-the-job learning modules, and further, to personal self-help courses. Coaching (athletic), is aptly referred by coaches to be “the purest form of teaching” (as recalled by the PI in a personal communication while attending a coaching conference in Canada hosted by the Canadian Soccer Association in September, 1991). In coaching adults therefore, do andragogical principles and practices offer superior results? A current review of the literature that related Andragogy to adult coaching reveals that there are numerous training videos and instructional designs for personal coaching mainly in areas of leadership and motivation; business coaching in finance and project management; and life coaching in literacy and weight-loss programs. There are a few scholarly works on Andragogy that include sporting and other physical and exercise-based learning programs. Wlodkowski’s 1985 book *Enhancing Adult Motivation to Learn*, detailed the very important role of player motivation in achieving excellence. He treated each athlete as a unique learner and focused on what needs to come before and after direct training to encourage learner motivation. In 2008, Morris-Eyton researched the coaching of swimming amongst the Masters’ adult population of South Africa as she noted the increase in the numbers of mature aged participants in the sport. Her research was in an informal, non-competitive YMCA program, but Morris-Eyton concluded that andragogical principles and teaching methods of these highly motivated Masters’ swimmers could be applied to help improve coaching through flexible and accommodating practices, and consequently, to ensure higher outcomes.

A 2010 study by Callahan on facilitating Physical Education Programs with Andragogy, showed that Andragogy may help physical educators in their battle for increasing physical activity adoption among adults. And Nicholls and Jones, in their 2013 book *Psychology in Sports Coaching: Theory and Practice*, gave one of the most lucid accounts of the links between teaching, coaching, sport psychology, and andragogy, as they fully developed Malcolm Knowles' eight principles that formed a process for maximizing performance. Another very useful book published in 2013 – *The Ultimate Coach: What Great Coaches Get Right* by Hanson, four time Olympian and coaching consultant – discussed what he considered to be the top seven strategies that the best coaches have mastered. Hanson stated that great coaches know that they are the most significant determining factor in athletic performance. He quoted liberally from Penny Wurthner's Study of the 2008 Canadian Teams for the Beijing Olympics, which found that the most significant contributor to a medal winning performance or a personal best performance was a strong, high quality, coach-athlete relationship.

Outside of the scholarly works also, a look at sports training books and manuals as well as the websites of leading sporting associations revealed that many of the principles espoused by Andragogy were prominently highlighted. Further, almost all the recounts of successful sports coaching, in either a team or individual sense, featured some form of discussion of the role of self-directedness, experiential learning, problem centeredness, goal orientation, and especially – internal motivation. These are the crucial assumptions about adult learners on which Andragogy rests. In describing their programs, coaches often cited the importance of establishing an organizational climate and structure, of assessing needs, of defining objectives, and of designing and operating a

comprehensive program – the exact phases outlined by Knowles. The discussion never used the term Andragogy, never referenced Knowles or any of the other leading writers in Andragogy, and never came down on any side of any esoteric, intellectual debate. It just advocated, from all its millions of participants, in dozens of different sports, over thousands of years of fiercest competition, the ingredients for success.

Rationale and Research Questions

There is great need for further research on applying andragogical principles and practices to sports coaching in general and in particular, to varsity level coaching.

Principles and practices, such as, self-directed learning (SDL) and the use of learning contracts (LC) appear to be particularly suited to athletic coaching yet there is no evidence, after decades of use in the classroom, that these principles and practices have been applied to sports coaching. This study entitled, A Case Study: An Andragogical Exploration of a Collegiate Swimming and Diving Coach's Principles and Practices at Lindenwood (LU) University has been shaped by four questions.

The four main research questions are:

- (i) To what extent, if any, does the Coach of the LU Men and Women's Varsity Swimming and Diving Programs practice the principles of Andragogy in his coaching?
- (ii) To what extent, if any, does the coach of the LU Men and Women's Varsity Swimming and Diving Programs perceive that he practices the principles of Andragogy (using Henschke's [1989] Modified Instructional Perspectives Inventory [MIPI])?

- (iii) To what extent, if any, do the student-athletes of the LU Varsity Swimming and Diving Programs perceive that the coach practices the principles of Andragogy (using Henschke's [1989] Modified Instructional Perspectives Inventory [MIPI])?
- (iv) What is the comparison between the coach's perception and those of the student-athletes regarding the extent to which he practices the principles of Andragogy?

The Case Study and Methodology

The nature of this research was to seek unknown answers to known questions related to the use of Andragogy in a particular varsity level sports program. The study drew on a few other related works, but was groundbreaking in the area of varsity sports. The study therefore required a comprehensive, holistic approach. The study was designed to start with a straightforward interview of the coach on his coaching beliefs and practices, then developed into a storytelling of the experiences, of the coach and athletes sourced from their both responses to quantitative and qualitative data collection instruments, poolside observations and focus group discussions. An interpretive inquiry method, set within a case study design, was adopted for this study. The case study is of the Swimming and Diving Program at Lindenwood University, a mid-size, Midwestern private university located in St. Charles, Missouri. With 55 athletic programs and over 1,750 student-athletes, the university has one of the largest athletics programs at any college in the United States. It is the stated mission of the Athletics Department "to advance learning, enliven campus life, develop leadership skills, and foster the personal growth of the student athlete through offering a high quality athletics program"

(Lindenwood University [LU], 2015, para. 4). The department strived to ensure that all coaches provide “model programs that develop meaningful standards of scholarship, athletic performance, leadership, community service, and sportsmanship conduct” (LU, 2015, para. 4). The research method triangulated a five-prong data collection process which included:-

- (i) One-on-one Interviews with the Coach - this method provided the opportunity to gain an understanding of Coach Owen’s past coaching experiences and allowed him to express his ideas, motivations, and reasons for coaching. In the four, one-hour interviews, data collection relied on unstructured as well as semi-structured techniques. The interviews were set one week apart.
- (ii) A Survey two-part Instrument completed by the Coach:
 - Part A – A customized version of John Henschke’s Modified Instructional Perspectives Inventory (MIPI)
 - Part B – A table created by the PI on the needs of adult learners using Malcolm Knowles’ six assumptions about the adult learner.
- (iii) Non-participant Poolside Observations - this research method included six, one-hour long non-participant observations of swimming/diving practice sessions. The designated practice sessions were all poolside, and the Coach’s instructions, other communications, beliefs, feelings, and behaviors were noted in a logbook and later coded and analyzed.
- (iv) A Questionnaire and Survey Instrument completed by the Student-athletes – this was a four-part data collection instrument as follows:
 - Part A – General Information

Part B – Open-Ended questions about their experiences with their coach

Part C – A customized version of John Henschke’s Modified Instructional Perspectives Inventory (MIPI)

Part D – A table created by the PI on the needs of adult learners using Malcolm Knowles’ six assumptions about the adult learner.

- (v) A Focus Group Discussion - seven senior and eight junior randomly selected members of the team participated in an open prearranged discussion of their experiences while under Coach Owen.

The research findings from all five information sources provided a rich, interwoven, descriptive, and quantitative (mixed) picture of the coaching principles and practices that operated in the Lindenwood University Men and Women Swimming and Diving program. Details of the findings of each method are presented in Chapter Four. The findings were then used to provide direct answers to the study’s research questions. These are presented in Chapter Five along with eight broad conclusions, recommendations for further research, and closing remarks.

Study’s Validity and Limitations

This study has sought to be comprehensive in its methods and procedures in order to rule out threats to its validity and reliability and ensure its acceptance and application to future research. It attempted to gather all pertinent information and data that would lead to unambiguous answers to its research questions. Every effort was made to minimize researcher bias. Also, the study sought to continuously include the cross-checking of information and checks for the reliability of the information given. The

study's validity was further verified since the data collection and analysis directly aligns with the theoretical framework outlined in Chapter Two. Further, this study attempted to include all the ethical considerations of human subject research. However, this was a case study and as such, its findings and results cannot be generalized to other populations or situations. Rather, this study provided a platform for future studies that investigated the tie between Andragogy and the effective coaching of adults in all different types of sports, at all different levels of competitiveness. The term Athlitigogy was born out of this study – the art and science of helping athletes learn, increase their cognitive, affective, psychomotor, and social, servant leadership, and spiritual skills and abilities, and conquer, and during and thereafter, effectively pass the baton.

Definition of Terms

Adult Learning: Feeling the need to learn and when there is a sense of responsibility for what, why, when, and how to learn. It is when adults use experience as a resource in learning so the learning content and process must bear a perceived and meaningful relationship to past experience. What is to be learned should be tied to the learner's developmental changes and life tasks. This learning experience will be used to enhance one's feeling of freedom. Adult learners tend to learn best in a non-hostile, nonthreatening environment and where different learning styles are recognized and encouraged (Brookfield, 1986, pp. 30-31).

Andragogy – “The art and science of helping adults learn”; it involves “the study of adult education theory, processes, and technology toward that goal” (Knowles, 1980, p. 43).

Another definition of Andragogy, as espoused by a leading andragogue may be, “a scientific discipline for the study of the theory, processes, technology, and anything else of value and benefit including, teaching, instructing, guiding, leading, and modeling/exemplifying a way of life, which would bring adults to their full degree of humaneness” (Henschke, 1998a, p. 8).

Assumption of adult learners (AL): The good reminder to how adults generally perceive learning content and processes, and with them in mind, adult educators can accordingly develop learning contents and processes. There are six assumptions of adult learners include self-concept, experience, readiness to learn, orientation to learn, motivation to learn, and the need to know (Knowles, Holton & Swanton, 1998).

Competencies in leadership: Skills and abilities which are associated with leadership effectiveness. There are four leader competencies considered as the major driving factors to successfully leading in an organization, which includes management of attention, of meaning, of trust, and of self (Bennis, 1984).

Diffusion of Innovations: “Diffusion is the process by which an innovation is communicated through certain channels over time among the members of a social system. It is a special type of communication, in that the messages are concerned with new ideas” (Rogers, 1995, p. 5).

Fiduciary – “Someone who puts your interests ahead of his or hers own. Fiduciaries put themselves in another’s shoes when giving investment advice” Fleck, 2015, para. 3).

Learning Contract –

Is a means of reconciling [these] imposed requirements from institutions and society with the learners’ need to be self-directing. It enables them to blend these requirements in with

their own personal goals and objectives, to choose their own ways of achieving them, and to measure their own progress toward achieving them. The learning contract thus makes visible the mutual responsibilities of the learner, the teacher, and the institution.

(Knowles, 1975, p. 130)

Self-directedness or self-directed learning (SDL) is learning that, “Takes place in association with various kinds of helpers, such as teachers, tutors, mentors, resource people, and peers” (Knowles, 1975, p. 18).

Trust and Trust Reciprocity:

Trust reciprocity and trust in every relationship, team, family, organization, nation, and economy, is the one thing that changes everything. It is considered by some as the key leadership competency, belief, feeling, and behavior vital in our personal, professional, and interpersonal lives (Covey, 2008, p. 3).

Summary

This chapter introduced the concept of Andragogy by first placing it in the long history of efforts to fully understand the principles and practices of better learning, particularly in adults. The chapter also introduced the work of two gurus of Andragogy, Malcolm Knowles and his protégé and student at Boston College, John Henschke. The chapter discussed the spread of the application of Andragogy outside of academia and into numerous disciplines. Of particular interest to this study, was the use of Andragogy in the coaching of sports, and some major contributions to this area were introduced in this chapter. The chapter highlighted the rationale and research questions for this study and provided an introduction to the study’s methodology. This chapter also presented a list of definitions of terms used in the study. In Chapter Two a detailed review of the literature of Andragogy is presented using a Roots-Body/Trunk-Branches analogy. In the

“Branches”, amongst the many applications of Andragogy discussed, the literature that links Andragogy to sports coaching is presented.

Chapter Two: Literature Review

Introduction

This chapter provides a general chronological account of the major scholarly works that have resulted in Andragogy being able to take its rightful place amongst the accepted branches of the field of education. Section one of the chapter recounts the early roots of Andragogy by discussing the ancient Greek and Hebrew antecedents of its methods, then moves into the 1800s and early 1900s when the concepts of adult education were being discussed on both sides of the Atlantic. In this first period, the social and psychological perspectives of the yet un-named discipline were being added to as the number of adults returning to the classroom, after wars, increased significantly. Section two of the review details the formal start of the body of this theory in 1970, with the writings of Malcolm Knowles. His assumptions of the adult learner and his outline of the processes that these assumptions required for learning to be effective, were discussed, developed, and criticized. Knowles continued to write, and many other scholars added to this field of Andragogy. So, that by 1990, if an academic field is defined as a common body of knowledge with its own experts, studies, communities, and challenges, then, by all counts, Andragogy became a recognized field of education. Section three of the literature review shows how the principles and practices of Andragogy widen its scope to reach numerous applications. The new discipline became truly inter-disciplinary and cross-disciplinary, but as its recognition for adding value to the learning process grew, Andragogy began to be applied to a growing number of new learning environments outside of academia. This was particularly observed within corporations in Human Resource training and development, professional organizations like real estate courses,

self-help coaching like weight-loss programs, and life coaching in general. The chapter then goes on to discuss some of the main points of the detractors of Andragogy, outlining their academic skepticism that Andragogy was intrinsically not different to Pedagogy. The detractors claimed that Andragogy rests on the same old assumptions of humanistic clinical psychology, and that it was not a new field but just strands of thinking and practice, or style, common to all teaching. This study was a research into the application of Andragogy to sports coaching. The chapter therefore moves on to a detailed discussion of this application. Early work in the development of the body of knowledge on Andragogy only alluded to its application to coaching adults in a particular sport. More recently, there have been few studies that directly researched Andragogy and sports coaching, and these are outlined. Through the use of numerous sports coaching books, websites, and training manuals, however, the link between the principles and practices of Andragogy, and success at coaching in the specific sports of soccer, basketball, golf, and swimming are then reviewed.

The Roots of Andragogy: Prior to 1968

Henschke (2009b) traced the use of the word, Andragogy, suggesting that all the signs pointed to it being first authored by Alexander Kapp in 1833. At that time, according to Wang and King (2009) citing from Henschke (2009b), “Beginnings of the History and Philosophy of Andragogy 1833-2000,” Kapp developed the term while trying to describe the practice Plato exerted when instructing his pupils who were young adults (Wang & King, 2009, p. 1). However, Wang (2010) went further to credit Henschke (1998b, 2010) for shedding important light on the roots of Andragogy:

Long before the term Andragogy appeared in published form in 1833, ancient Greek and Hebrew educators, if not others, used words that although they were antecedents to Andragogy, included elements of the concept that has come to be understood as some of the various meanings and definitions of Andragogy.

(Wang, 2010, p. 21)

In addressing Henschke's (1998a), *Antecedents of Andragogy*, Wang (2010) showed that the language and word meaning of the Hebrew prophets and their Greek counterparts, before and concurrent with the time of Jesus Christ – learn, teach, instruct, guide, lead, and example/way/model – provide an especially rich and fertile resource to interpret Andragogy (Wang & King, 2009, p. 21).

Further, Wang (2010, p. 25) reporting on Henschke's (2009b) work showed the corroboration of Savicevic's (2006) with Henschke's findings about the deep historical roots of Andragogy in practice. Savicevic wrote that the antecedents to and background of Andragogy rests in an exploration of adult learning before literacy such as in ancient Greek, Roman, Jewish, and Middle Ages culture (Wang et al., 2010, p. 25). Another noteworthy scholar who agreed that the roots of Andragogy lie in early Grecian practices is Isenberg. Chapter Two of her 2007 book on *Applying Andragogical Principles to Internet Learning* gave one of the most lucid recounts of the development of Andragogy. She traced the literature on the art and science of adult learning from its early, unnamed Grecian roots, through to the significant contribution by 17th century writer, Comenius. She gave the credit for first espousing the comprehensiveness of education to Comenius - that learning should be interesting and practical, and that learning involves portions of the mind other than cognition. Isenberg traced her recount through the ideas of Benjamin

Franklin on books and libraries for adult education in the 1728 Junto project (Isenberg, 2007, pp. 14-15).

Wang (2010) presenting Henschke's (2009b) work on "Beginnings of the History and Philosophy of Andragogy 1833-2000," revealed that between Kapp's 1833 use of the term and the 1920s, the concepts of adult education were being developed on both sides of the Atlantic without reference to the name Andragogy. However, in 1921 in Germany, Rosenstock revived the term Andragogy at a Frankfurt conference and in 1925 Rosenstock-Huessy "posed Andragogy as the only method for the German people and Germany, dispirited and degenerated in 1918 after World War I, to regenerate themselves and their country" (Wang, 2010, p. 2). As the number of adults who began to return to academia in the early 1920s increased, the concept of adult education became more popular. Two streams of inquiry in the 1920s developed around adult education. First, the psychological perspective based on the psychologist Thorndike (1928) espoused views on connectionism and comparative psychology helped forge his approach to adult capacity and ability to learn. He complimented this by suggesting that the intellect, character, and skill possessed by any man were more than likely the product of certain original tendencies and the training, which they have encountered. Some of his findings suggested a bleaker learning future for adults, especially those over 35 years of age whence, from there, it would decline about 1% per year, thus somewhat reinforcing that "one can't teach an old dog new tricks" (p. 2). But this "old age" learning slighting did not seem to last too long, since he later advocated that it was the speed of learning, not the power to learn that declined with age; indeed a relief to andragogues then, as it must be, now (Knowles, 1980, p .55). His essential belief, revealed in his 1928 classic study, *Adult Learning*, was

that instruction should pursue specified, socially useful goals. Further links to the philosophy, principles, and practices of Andragogy, came with Thorndike's (1928) formulation of the Law of Effect, whose overall contention is that, behaviors and strength of connection followed by satisfying state of affairs and pleasant consequences, tend to be more likely to be repeated in the future. Conversely, the law maintains that the strength in connection will decrease for states of affairs that are annoying. Thorndike, generally ranked as the ninth most researched psychologist was also known for other behavioral laws such as the Law of Exercise – learning by doing, and the Trial-and-Error theory of learning. According to Knowles (1980), the only drawback of Thorndike's work on adult learning might be that, it was conducted in a controlled environment, mainly with, animals and more precisely, cats.

Lindeman's scholarly and much cited 1926 work on "The Meaning of Adult Education" is widely acknowledged to mark the beginning of mainstream discussion on adult learning. Lindeman explored the methods by which adult education could become more effective. He adamantly believed adults need to learn and best learn through experience, and that "too much of learning consists of vicarious substitution of someone else's experience and knowledge" (Lindeman, 1926, p. 9). Stewart (1987) asserted that Lindeman did not use the term "Andragogy" in his adult learner masterpiece, *The Meaning of Adult Education*, but that he did "introduce the term Andragogy to Americans for the first time in an odd one-paragraph article published in the journal Workers' Education in 1926" (p. 108). Lindeman did not develop his themes around this term, but rather, he chose "adult education." Stewart (1987) cited that Lindeman, declared in his contribution to the 1926 Worker's' Education journal article, that it was not until then

that he became aware of the term, *Andragogik*, which was coined by Professor Eugen Rosenstock of the Frankfurt Academy of Labor. There, Rosenstock spoke of the need to know the difference between, *Pedagogy*, which was described to be “the method of learning for children and youth,” *demagogy*, the “the method of miseducating adults,” and *Andragogy*, “the true method by which adults keep themselves intelligent about the modern world” (Stewart, 1987, p. 109).

Later, in 1998, Henschke (1998b), in his article, “Modeling the Preparation of Adult Educators,” interpreted Lindeman and professed that,

Andragogy is the true method by which adults keep themselves intelligent about the modern world, and that its use would make a qualitative difference in the life of our time, and that the practical nature of *Andragogy* theory becomes fact. That is, words become responsible acts and accountable deeds and the practical fact which arises out of necessity is illuminated by theory. (p. 12)

In essence, “*Andragogik* represents the learning process as one in which theory and practice become one – a process according to which theoretical knowledge and practical affairs become resolved in creative experience” (Stewart, 1987, p. 109).

Too many highly regarded educators, experience stands as the strongest element behind one’s learning – through experience, one has more confidence in going forward and being steadfast in their learning. Lindeman, and psychologists and psychotherapists, Thorndike and Rogers, are just three such stalwart writers of this; and a, healthy self-concept notion.

In the days when education referred only to the kind acquired in formal academic institutions, Lindeman (1926) wrote about what he learned from his visit to Denmark and

the Danish model of “peoples” colleges (Volkshochschulen), where adults studied for the purpose of making life easier, more productive, more enriching, and more rewarding. Lindeman’s Chapter IV, “In View of The Need For Self-Expression,” and Chapter V, “For Those Who Require Freedom,” read like an epistle for Andragogy - “Intelligence is consciousness in action – behavior with a purpose. The person who is vividly aware of his activity, as well as, the goal toward which the activity is directed, becomes conscious of both his powers and limitations” (Lindeman, 1926, pp. 63-65). The under-lying philosophy is that the purpose of education is teaching the person how to arrive at his goals. These goals can be self-determined or made in conjunction with other trusted educators in a partnership that could also include another or others in the learner’s workplace and life. For example, Lindeman discussed the aspect of freedom in learning. This is an area where those in control of all learning have held tightly. But as clearly espoused by Lindeman (1926), freedom in learning is not about the absence of control or about some “theological doctrine of free will, by false separations of inseparable entities such as individual versus society; but only by knowing what we can be free with” (pp. 65-66). Lindeman stated, “We are free in proportion to the number of things we can create (not de novo out of nothing) or invent by utilizing what we already have” (p. 70). He suggested that adult learners do not tend to discard old patterns of behavior in favor of new ones. Rather, they combine the old and the new and enter into an ever-evolving, new and renewing set of patterns. Lindeman went further to insist that freedom is an achievement, not a gift and that adult learners do not acquire freedom, but grow into it (p. 71). Sensing the passion that Lindeman exuded for adults in an adult education setting it might be safe to assume that while adult learners grow they are drawn in and into

freedom and its limitless path, freedom itself. His inferences further seem to whisper in the learners' ears that they will "enjoy" a continuous and heightening pushing to, and pulling from, freedom that promises to produce more for us, the learner. This is sensed in Lindeman's concluding chapter – "In Terms of Method" as he develops his principles of learning into some direct advice for the field of adult education.

The Body of Andragogy: 1970-1990

The body of the discipline of Andragogy can be said to have developed in the period from Malcolm S. Knowles' publication of his first edition of *The Modern Practice of Adult Education* in 1970 to the end of the 1990s. It is in these near 30 years that the philosophical and practical ideas for better facilitating the needs of adult learners were effectively described and developed. Knowles had previously published two articles on Andragogy in 1968 and 1969, however, it was the heralded, "The Modern Practice of Adult Education" that opened the doors to the special philosophy and meaning of Andragogy. Knowles' writings on Andragogy have been the most cited, expanded, translated, and criticized, of any of the writers of Andragogy. In his 1970 edition of his book, Knowles stated that,

The basic concepts and assumptions about adult learners and adult learning that have been flowing through our stream of thought for half a century have remained intact; it is remarkable that the propositions made by Eduard C. Lindeman in 1926 in his *The Meaning of Adult Education*, have been largely supported – and enriched – by experience and research ever since (p. xvi).

In his 1980 rewrite of *The Modern Practice of Adult Education*, Knowles recounted the introduction of the label "Andragogy" and sets off an entire new field of

specialized education. He stated that his “Chapter 4 is a highly personal statement of a beginning theory about adult learning for which I have borrowed the label ‘Andragogy’ from my European colleagues” (p. 19). By the mid-1980s, the ideas for modern learning had started to progress into schools and universities, with changes to course content, courses offered, and the make-up of majors. And, by the 1990s, adult education and self-directed learning started to take root with the recognition of the potential of the computer and the introduction of electronic learning. By 1996, almost every tertiary, educational institution had incorporated some form of the thinking of Knowles. Through it all though, the progressions had largely remained in academia.

For Knowles, Andragogy is premised on at least six (an original four, and a fifth and sixth that were added in 1995) crucial principles/assumptions about the characteristics of adult learners that are different from the assumptions about child learners on which traditional Pedagogy is premised. The following Table 1 represents the six assumptions/principles:

Table 1

Knowles' 6 Assumptions/Principles

1. Need to know	In order for an adult to be a successful learner in any program, s/he must know the importance of learning what is being taught and why they need to learn something.
2. Self-concept	As a person matures his self-concept moves from one of being a dependent personality toward one of being a self-directed human being and responsible for their own decisions.
3. Experience	As a person matures he accumulates a growing reservoir of experience that becomes an increasing resource for learning and making an overall contribution to education.
4. Readiness to learn	As a person matures his readiness to learn becomes oriented increasingly to the developmental tasks of his social roles and showing that they are ready to learn what they need to know
5. Orientation to Learning	As a person matures, his time perspective changes from one of postponed application of knowledge to immediacy of application, and accordingly his orientation toward learning shifts from one of subject- centeredness to one of problem centeredness and one of life centeredness
6. Motivation to learn	As a person matures the motivation to learn is driven internally and also by external pressures (Knowles, 1984, p. 12)

Based on these processes of adult learners, Knowles (1984) outlined a manual for the effective facilitation of instruction for adults. His seven and then eight (added in 1995) processes (Components of an Andragogical Process Design) for involving the learner, include the following components, marked as Table 2:

Table 2

Knowles' 8 Processes - Components of an Andragogical Process Design

1. Preparing the learners for the program	The most common introduction of a program to potential learners is an announcement that describes the program's purpose, objectives, meeting time and place, audience, registration procedures, cost, and potential benefits.
2. Setting the climate (Rational climate and Structure)	This refers to the inculcation of a learning environment which is characterized by a concern for the development of persons, a deep persons, a deep which is characterized by a concern for the development of persons, a deep conviction as to the worth of every individual, and faith that people will make the right decisions for themselves if given the necessary information and support (p. 67).
3. Involving learners in Mutual planning (Assessing needs and interests In program planning)	An educational need is something people ought to learn for their own good, for the good of an organization, or for the good of needs and society. It is the gap between their present level of competencies and a higher level required for effective performance as defined by themselves, their organization, or society." (p. 88) Knowles continues, "the more concretely individuals can identify their aspirations and assess their present level of competencies in relation to them – the more exactly they can define their educational needs and the more intensely they will be motivated to learn." (p. 89).
4. Involving learners in needs (defining purposes and objectives)	The starting point for developing program objectives is the pool of needs that have evolved from step (ii). This list will lead to a list of specific goals and will guide what particular activities and schedules should form the program. The goals should be prioritized, these objectives and goals will help identify the resource needs, the institutional support needed, the performance and behavioral outcomes that can be expected. (p. 120-125)

continued

Table 2. Continued

5. Involving learners in forming their objectives (Designing a Comprehensive programs)	The process of translating a program design into a flow of people and materials through a system of activities is the function of administration, and it is in this process that the principles of Andragogy are most frequently ignored or violated. This is because the early evolution of administrative theory and practice in this country was dominated by adherents to the cult of efficiency, for whom the highest value was to achieve the highest production at the least cost regardless of the consequences to such human values as self-esteem, love, and self-actualization” (p. 155) Knowles goes on to suggest a marrying of efficiency with respect for all participants, freedom of expression, and availability of information in the way the facilitator operates the program.
6. Involving learners in plans designing their learning plans (Operating a Comprehensive Program)	The process of translating a program design into a flow of people and materials through a system of activities is the function of administration, and it is in this process that the principles of Andragogy are most frequently ignored or violated. This is because the early evolution of administrative theory and practice in this country was dominated by adherents to the cult of efficiency, for whom the highest value was to achieve the highest production at the least cost regardless of the consequences to such human values as self-esteem, love, and self-actualization” (p. 155) Knowles goes on to suggest a marrying of efficiency with respect for all participants, freedom of expression, and availability of information in the way the facilitator operates the program.
7. Helping learners carry out their learning plans (Designing and Managing Learning Activities)	Knowles provides essential insights into the practical Organization of a learning experience in line with the principles of Andragogy, and presents several designs for specific learning scenarios, including formats for individual Learning, like internships, and correspondence study courses, and for group learning, like workshops and clubs. These learning activities are presented with useful planning guides, questionnaires, and exhibits.

continued

Table 2. Continued

8. Involving learners in evaluating their learning outcomes (Evaluating	Knowles attempts to remove the guilt and pressure normally associated with the evaluation step of any program by stating that, “adult education is, unlike youth Comprehensive Programs) education, an open system in which participation is voluntary, so that the worth of a program is more readily tested by the degree of persistence and satisfaction of its clientele.” (p. 199) This chapter forces home the point that in a learning environment, informal evaluation is actually going on all the time (p. 203), and regular feedback to participants, as well as the use of good evaluative questionnaires (p. 205) are crucial (Knowles, 1995).
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Another prolific writer on Andragogy since 1973 is John Henschke. He was noted for his highlighting the role of trust in the andragogical process, and for his 1989 development of the Instructional Perspectives Inventory (IPI). The IPI was “a self-reporting assessment instrument revealing philosophical beliefs as well as personal and contextual identification, actions, and competencies for guiding conduct in adult education” (Henschke, 1994, p. 75). The IPI has been used many times to provide a measure of the following seven factors identified as beliefs, feelings, and behaviors of adult educators:

- 1) Teacher Empathy with learners
- 2) Teacher trust of Learners
- 3) Planning and Delivery of Instruction
- 4) Accommodating Learner Uniqueness
- 5) Teacher Insensitivity toward learners
- 6) Experienced based learning techniques (Learner-centered learning process)
- 7) Teacher-centered learning process. (p. 75)

From the beginning of time, trust has been praised as an essential ingredient for successful relationships, successful business partnerships, indeed – a successful world economy. Its role in education was more amorphous. Henschke (2011) stated that Combs, in his 1966 book, *Fostering Self-Direction*, asserted that learners need to believe in self-direction and to trust that the human organism is able to exercise self-direction. He recommended fostering self-direction in learning by providing opportunity for self-direction to be practiced and learned (Henschke, 2011, p. 1). Henschke's (1989) writings talk about the most common practices of adult educators that, the element of trust was brought to the forefront. Henschke's IPI asserted that trust between facilitator and learner was the strongest factor which guided most of what was present in the professional practice of Andragogy. In this very year, Henschke's instrument had "teacher trust of learner" assessed on the following 11 items:

- 1) Purposefully communicate to learners that each is uniquely important;
- 2) Express confidence that learners will develop the skills they need;
- 3) Trust learners to know what their own goals, dreams, and realities are like;
- 4) Prize the learners ability to learn what is needed;
- 5) Feel learners need to be aware of and communicate their thought and feelings;
- 6) Enable learners to evaluate their own progress in learning;
- 7) Hear what learners indicate their learning needs are;
- 8) Engage learners in clarifying their own aspirations;
- 9) Develop supportive relationships with their learner;
- 10) Experience unconditional positive regard for your learners; and,
- 11) Respect the dignity and integrity of their learners. (p. 4)

In the earlier years of the development of the body of the discipline of Andragogy, the term Self-Directed Learning (SDL) was used almost interchangeably with Andragogy. Even Knowles published his 1975 Guidebook under the label of Self-Directed Learning, but by the 1980s had become firmly established in the literature, that Andragogy was the philosophy, pillars, and principles/assumptions used in helping adults learn, while SDL was the most important way Andragogy was to be implemented. Henschke (2009b) spoke of Suanmali (1981) who looked at 10 of Mezirow's (1981) 12 core concepts related to self-direction in learning and what he characterized as, "a charter for Andragogy," and concluded that,

to assist adults to enhance their capability to function as self-directed learners, the educator must:

- a) Progressively decrease the learner's dependency on the educator;
- b) Help learners understand how to use learning resources – especially the experience of others, including the educator, and how to engage others in reciprocal learning relationships;
- c) Assist learners to define his/her learning needs – both in terms of immediate awareness and understanding the cultural and psychological assumptions influencing his/her perceptions of needs;
- d) Assist learners to assume increasing responsibility for learning – defining their learning objectives, planning their own learning program and evaluating their progress;
- e) Organize learning that is relevant – in relationship to their current personal problems, concerns and levels of understanding;

- f) Foster learner decision-making and choices – facilitate taking the perspectives of others who have alternative ways of understanding;
- g) Encourage learner judgment – things that are increasingly inclusive and differentiating in awareness, self-reflexive and integrative of experience
- h) Facilitate problem-posing and problem-solving – including those associated with individual and collective action and knowing the relationship between personal problems and public issues
- i) Provide a supportive learning climate – reinforce the self-concept as a learner and doer by providing for progressive mastery with feedback to encourage provisional efforts to change and to take risks; to competitive judgment of performance and engage in appropriate use of mutual support groups;
- j) Emphasize experiential, participative and projective instructional methods and the appropriate of modeling and learning contracts. (pp. 6-7)

The two not used by Suanmali were Mezirow's numbers 8, and 12, originally h and l respectively:

- 1) Foster a self-corrective reflexive approach to learning – typifying and labeling, perspective taking and choosing, to habits of learning and learning relationships;
- 2) Make the moral distinction of helping the learner understand their full range of choices and how to improve the quality of choosing versus encouraging the learner to make a specific choice (p. 7).

Mezirow (1981) advocated that failure to follow these guidelines will “perpetuate a dysfunctional dependency relationship between learner and educator” (p. 21).

The adult educator is one of the single most important keys to foster self-directedness. Mezirow (1981) suggested that even though the core responsibility of adult learning tends to rest on the experience of others as resources in problem solving, the learner would run into those occasions where they would recognize the need to reach out to a helping hand – the adult educator (pp. 20-21). This educator ought to be attentive, and ready to FEED the learner. This FEED principle reflects the environment where the educator *facilitates, encourages, empowers*, and takes the adult to that self-assured stage where s/he is ready to *deliver*.

Mezirow (1981) clearly has sought to strengthen the resolves of both the adult learner and educator that the enhancement of the learner's ability for self-direction has breadth and power and represents the mode of learning characteristic of adulthood (p. 21). He however cautioned that,

A self-directed learner must be understood as one who is aware of the constraints of his efforts to learn, including the psycho-cultural assumptions involving reified power relationships embedded in institutionalized ideologies which influence one's habits of perception, thought, and behavior as one attempts to learn. (p. 21)

The Branches of Andragogy: 1990- Present

In the last 25 years, the field of Andragogy has flourished, with an ever-increasing number of universities having or considering to add, a department of Andragogy, numerous dissertations and scholarly writings discussing the characteristics of adult learners and the programs designed to facilitate their learning, and more and more applications of Andragogical principles to new and diverse areas of learning. Henschke (2016) cited Savicevic (2006) as saying,

That since his first visit to the USA in 1966 to the present time in 2006, the identifiable trace of Andragogy on USA universities is that there has not been a single serious study on adult education and learning that did not refer to Andragogy as a conception. (p. 64)

These 25 years have seen a voluminous amount of research and publication on Andragogy mainly along four lines: (i) discussions and translations of the work of Malcolm Knowles; (ii) Andragogy used in curriculum development for adult learners; (iii) the spread of Andragogy across the globe; and (iv) applications of Andragogy to increasingly wider fields of learning. This later line of research sought to gather empirical evidence to ascertain if Andragogy does indeed provide better results to learning in adults, compared with other approaches. This literature review will develop this fourth trend in research as it is to this trend that this present research hopes to contribute.

As cited in Henschke's (2016) vast collection of andragogical works, the principles and practices of Andragogy have been applied to: Music Learning (Kruse, 2006); Real Estate Courses (Board of Registration of Real Estate Brokers and Sales persons, 2006); Industrial Training (Chivers, 2007); Human Resource Development (Cooper & Henschke, 2007); English as a Foreign Language (Deveci, 2007); Computer Software Training (Hurt, 2007); Internet Learning (Isenberg, 2007); New-Hire Training (Woodard, 2007); Workplace Learning (Fenwick, 2008); American Association of Family and Consumer Sciences (Traore, 2008); Basic Police Training (Vodde, 2008); Developing and Managing Human Capital (Henschke, 2009); and The College Writing Center (Moberg, 2010).

In particular, Human Resource Development and On-Line Learning are two areas in which there has been a great deal of research on exactly what Andragogy offers learning in those fields. Since the 1970s, the great potential that Andragogy has offered industrial corporations, with managers functioning as facilitators in improving both interpersonal relationships and task effectiveness, has not gone unnoticed. Citing Henschke's (2009b) work on the "Beginnings of the History and Philosophy of Andragogy 1833-2000," Wang (2010) showcased the important works of Ingalls (1972) who "provided the first handbook as a guide to using Andragogy in helping adult educators, referred to as trainers, become more systematic and consistent in their engaging learners in the learning process" (Wang, 2010, p. 5). Then, Wang (2010) drawing on Henschke's discussions on Knowles' (1975) guidebook for learners and teachers on the topic of Self-Directed Learning (SDL), showed Ingalls' (1976) encouragement of this and he "added to the idea of using Andragogy identified nine dimensions that the manager needs to function as a person who helps his workers learn and keep up-to-date in their various fields" Wang (2010, p.5). They were:

- (1) creating a social climate in which subordinates feel respected;
- (2) treating mistakes as opportunities for learning and growth;
- (3) helping subordinates discover what they need to learn;
- (4) assisting the staff to extract learning from practical work situations and experiences;
- (5) letting staff members take responsibility for designing and carrying out their own learning experiences;
- (6) engaging staff members in self-appraisal and personal planning for performance improvement;
- (7) permitting or encouraging innovation and experiments to change the accepted way of doing things if the plan proposed appears possible;

(8) being aware of the developmental tasks and readiness-to-learn issues that concern his staff; and, (9) trying to implement a joint problem-finding and problem-solving strategy to involve his staff in dealing with day-to-day problems and longer-range issues. (Wang, 2010, p. 5)

Henschke has been one of the more prominent contributors to the application of Andragogy to Human Resource Development (HRD). His 1999 work which explored the gap between “learning” and “performance” as he related the concepts of Adult Education with those of Human Resource Development (HRD), concluded that “the two distinct terms together are different sides of the same coin; and their close relationship is the key to HRD” (pp. 20-23). He used the parallel of the eaglet’s need to learn to fly and the parent’s experience and guidance to help bring such about (Henschke, 1999, p. 616, 20-J). In Henschke’s (2009a) work, *On Developing and Managing Human Capital*, he stated that, “in recent years there has been extensive monetary investment in human capital because of the rapid and continuing changes in the ways products and services are made and distributed” (p. 1). He pronounced that within organizations, the idea of continued learning, as a lifelong process for Human Resources, has gained momentum and will continue to do so as these changes accelerate. In the perspective of Andragogy, he recommended that companies shift from HR Training Departments, TD’s, to:

Performance support while in the work setting: managing, leveraging, and implementing the total system of its own human capital resources to transform itself into a cooperating and flourishing entity for accomplishing the corporate mission; and applying what is known to what is done with the various constituencies they serve. (Henschke, 2009a, p. 2)

The other area of rapid development over the last 25 years, in the use of Andragogy, has been in the recognition that the Information Age has only made andragogical concepts more relevant and urgent. Wang (2010, p. 20) used Conner (1997),

Andragogy refers to learner-focused education for people. Thus, in the information age, the implications of a move from teacher-centered to learner-centered education are staggering. Postponing or suppressing this move will slow our ability to learn new technology and gain competitive advantage...Andragogy's major focus is understanding and adjusting our experiences and beliefs in relationship with the world we face on a daily basis. (Wang, 2010, p. 20)

Another noteworthy contribution on the application of Andragogy to the information age was Isenberg (2007) who focused on applying andragogical principles to learning via the Internet. Writing in 2006, *the age of the wonders of the Internet*, Isenberg appropriately used these principles to connect to the ever-growing field of Internet Learning for adults. Isenberg's most valuable addition was in her development of the Learning Contract (LC). Knowles first introduced the idea of using learning contracts for adult learners in 1975 while sharing his insights on self-directed learning. In his 1980 update, using a five-column table construct, he developed the benefits of including this tool as an essential part of any adult learning program, but it might be argued that it is Isenberg (2007) who fully developed the modern construct of a Learning Contract. Isenberg propositioned that a Learning Contract reduces the problems of dealing with wide differences within any group of adult learners. She noted, "Learning Contracts help you avoid the downfall of aiming for the middle" (p. 29). She laid out a detailed five-

column plan showing that in Column 1 of the Contract, Learning Objectives, the learners can state their objectives in their own words and can even arrange their objectives in different sequential order. In Column 2, Learning Resources and Strategies, they can identify learning resources and strategies that take into account their preferred learning styles. By having to write their objectives in their own words, using the instructors' objectives as a reference point, they are likely to understand them better and to have more of a sense of personal commitment to them. Column 3, Target Date for Completion, provides a self-disciplining device that better ensures that the learners schedule their time more efficiently by specifying target dates for completing each objective. Column 4, Evidence of Accomplishment of Objectives, and Column 5, Criteria and means for Validating the Evidence, which especially places the responsibility on the learners to think for themselves what evidence they might collect to show that they have accomplished their objectives and how they can get that evidence judged. This results in a sense of responsibility and a degree of creativity in the learners that is totally missing when the instructors take full responsibility for evaluation (p. 30). In applying Learning Contracts to Internet learning, Isenberg makes strong use of peer group support through Internet Discussion Forums.

Many proponents of self-directed learning on the one hand, and, learning contracts, on the other, have come to coalesce around the notion that though uniquely distinctive, they work in tandem, as with a two-horse buggy, to facilitate a smooth ride for the adult learner. To this point, many educators, including Knowles (1975, 1980) supported the interactive and push-pull relationship between self-directedness and learning contracts. Also, Brookfield (1986) described learning contracts as “the chief

mechanism used as an enhancement of self-direction (in learning)” (p. 81). And, Anderson, Boud, and Sampson (1998) purported that, “careful attention to orienting the users and to developing their skills in using learning contracts is seen as important, or else the use of contracts may produce anxiety or frustration with the learner” (p. 2). Taylor (1986) shared that “a study of learners’ weekly reports of experience in a course which promoted self-direction and its other functionally related parts, in their own course work revealed considerable personal transition, something of a cultural journey” (p. 55). Overall, as pointed out by Centre for Teaching Excellence (n.d.a) at the University of Waterloo, Canada on the aspect of Learning Contracts, there seems to a consensus that “self-directed learning can be a challenging proposition this, being true even for the brightest and most motivated students” (p. 1). The Centre for Teaching Excellence (n.d.b), in its Four-Step Process version of Self-Directed Learning, also went to “decree” that, “Learning contracts are argued to be the most important tool for successful and positive independent study experiences for both students and advising faculty members” (p. 1).

There is a certain truth that SDL is a challenging procedure and this is seen to be quite the case even for those studying medicine. Ramnarayan and Shyamala (2005) of John Hopkins University shared that “many students find that the idea of self-learning for the first time is so strange that they become over anxious” (p. 4). They further commented, with profundity that, “self-directed learning (SDL) has been identified as an important skill for medical graduates” (p. 1). What is important here is not just that SDL is a vital tool but that, it is more valued, by both faculty and students of a graduate, more adult, and seriously responsible level. The authors stated that “the main purpose of

education must now be to develop the skills of inquiry, and more importantly to go on acquiring new knowledge easily and skillfully the rest of his or her life” (p. 1).

Ramnarayan and Hande went further to pronounce that one of the most important benefits of the SDL approach is that learners can take some significant responsibility for their own learning over and above responding to instruction. In addition, learners can show the initiative and tackle an enduring problem of the medical profession, namely, “the exponential growth of knowledge especially since the course cannot teach everything that the doctors consider relevant” (p. 2).

A 2014 report by the Center for Teaching Excellence at the University of Waterloo, Canada, listed the following four very possible and practical limitations associated with the use of Learning Contracts. They suggested that the Learning Contracts may:

- 1) Be challenging to create for students who are used to lecture/exam types of courses;
- 2) Not be suitable for content with which the student is totally unfamiliar, and a lot of initial guidance may be required;
- 3) Require modifications as the unit progresses, and careful thought is needed on how much modification is acceptable;
- 4) Require faculty members to redefine their traditional roles and make the transition from teacher to advisor. (p. 5)

The Detractors of Andragogy

Throughout the development of the field of Andragogy, academic skepticism on its contributions has continued unabated, with much debate over the assertions and claims

of the differences between Andragogy and Pedagogy. Henschke (2009b) provided useful critiques of Andragogy from Davenport (1993), Hartree (1984), Jarvis (1985), Savicevic (1999), and Tennant (1996). These writers have noted that much of the recommendations of the father of Andragogy, Knowles, simply follow the qualities of good facilitation argued for by the 1961 works of Carl Rogers, and Edward Thorndike's 1928 classic study, *Adult Learning*, and make extensive use of assumptions derived from humanistic clinical psychology and psychotherapy. Critics saw this as a problem because Knowles added in other elements, which stem from the field of scientific curriculum-making and behavior modification. These encouraged the learner to identify needs, set objectives, and enter into Learning Contracts. The critics claimed that Knowles uses ideas from psychologists working in two different and opposing therapeutic traditions - the humanist and the behavioral traditions. Henschke (2009b) shared another line of criticism that centered on whether Andragogy is a theory/set of assumptions about learning, or a theory/model intended to create a name or, to 'baptize' a certain segment of society that for long have been 'fatherless'. Henschke (2009b) cited Ferro's (1997) assertion that because of its relatively new inclusion in academia, and its rather unclear term, Andragogy, had not been a ready-to-be-embraced component of education (p. 20). Henschke (2009b) continued to cite Ferro who was pushing for more accuracy of meaning of the term, Andragogy, and charging that it seemed only to foster the creation of additional unclear terms in an attempt to define an aspect of adult education (p. 20).

Detractors would often claim that all of Andragogy rests on the notion of the self-concept of, the adult learner, that is – that as a person matures, his self-concept moves from one of being a dependent personality toward one of being a self-directed and

independent human being – this, many feel increases as one becomes more and more “adult.” Knowles (1984) pointed to critics who questioned his claim that, the point at which a person becomes an adult, psychologically, “is that point at which he perceives himself to be wholly self-directing. And at that point, he also experiences a deep need to be perceived by others as being self-directing and independently capable” (p.

56). Knowles (1984) shared another open critique of Andragogy. This critique spoke to Andragogy’s assumption that as a person matures he accumulates a growing reservoir of knowledge acquired through direct and indirect experiences. This accumulation of knowledge and mountain-growing set of experiences lend to a larger resource pool for learning. Therefore, adults learn more effectively through experiential techniques of education such as discussion or problem solving (p. 43).

The critics called to mind the many times when experiential learning appears not appropriate – such as when substantial amounts of new information, or, very technical information is required. Is the success of the andragogical method therefore dependent on what is being learned? Further critique of Andragogy has come from the educational progressives following in the tradition of John Dewey (1933). This school of thought believes that if young children were not conditioned to be subject-centered then they would be problem-centered in their approach to learning – thus Andragogy’s focus on the unique orientation to learning of adults comes into question. They believe that the question does not relate to age or maturity but to what makes for effective teaching and that andragogues need to be cautious about claiming that there is anything distinctive about adult learners. Jarvis (1985), in his reference to romantic and classic notions of curriculum, stated that what lies behind the Andragogy / Pedagogy debate are competing

conceptualizations of education itself. He believed that these are not directly related to the age or social status of learners, but are just various ways of categorizing strands of educational thinking and practice. Wang (2010) in summarizing the history of Andragogy also detailed the 1999 criticism of Knowles by Savicevic in which Savicevic claimed that Knowles had made six mistakes and thus “caused much confusion and misunderstanding” (p. 23). As much as there are discoverers or “inventors” of any new phenomenon there will be at least an equal number of “mutineers” or critics, and this is natural as it is healthy for the growth and purification of the declared, “new” idea. As so, for all true and open-minded educators, as with Savicevic and his identified six mistakes of Knowles, and Knowles with his proclamations of Andragogy versus Pedagogy, they know that their voices are being heard when they garner critiques of all kinds. Critics and critiques serve to bring to the table of holistic education, a brave and unrestrained mindset where the only fight for all “scientists,” and friends and family of teaching and learning communities, is to ensure that the educational race is not put in blinkers. For in the end, no suggested process should ever limit education and its principles and practices to only the visuals of the teacher-rider’s eyes. As with Leavenworth and the Pike's Peak Express Company of 1859, the new education mail’s main goal is to continue its baton passing, each time, improving on the immediately preceding delivery effort.

Andragogy and Coaching of Sports

While a first glance may appear to show that there is little research on Andragogy as applied to learning in a sports program, a closer look at sports training books and manuals, as well as the websites of leading sporting associations reveal that many of the principles espoused by Andragogy are prominently highlighted. Further, almost all the

recounts of successful sports coaching, in either a team or individual type sport, featured some form of discussion of the role of self-directedness, experiential learning, learning contracts, problem centeredness, goal orientation, and especially – internal motivation. These are all the crucial assumptions about adult learners on which Andragogy rests. In describing their programs, coaches often cited the importance of establishing a supportive organizational climate and structure, of assessing needs, of defining objectives, and, of designing and operating a comprehensive program by which one can search and research resources and strategies, set timelines, produce evidence of things accomplished, and also present means that validate the evidence. These are the exact phases outlined by Knowles. The discussion never used the term Andragogy, very seldom referenced Knowles or any of the other leading writers in Andragogy, and never came down on any side of any esoteric, intellectual debate. It just advocated, to all its millions of participants, in scores of different sports across our 200-plus nations and thousands of years of fiercest competition, the ingredients for success.

Malcolm Knowles' 1980 edition of *The Modern Practice of Adult Education* has many recommended practices that seem to be directly applicable to sports coaching. He did not specifically mention coaching but his ingrained passion for a genuine holistic teacher-student co-learning experience, is observed throughout his writing, and appears to exactly parallel the coach-athlete co-learning model. In his discussion on the purpose of education, Knowles (1980) stated

The mission of education is to produce competent people – people who are able to apply their knowledge under changing circumstances. ... We now know, also, that the way to produce competent people is to have them acquire their knowledge

(and skills, understanding, attitudes, values, behaviors, and interests) in the context of its application. (p. 19)

As if directly speaking about sports coaching, Knowles (1980) emphasized that the first step is to set the right climate for inquiry by making the learners engaged, enthusiastic, and creating the climate of mutual respect. He stated; “My attitude is that I am sharing my experience, training, and point of view with you rather than imposing them on you” (p. 13). Here, Knowles was in fact speaking to the co-learning community where the coach can add to his/her body of knowledge by being ready to listen to other varied-aged adults who bring “older” or “newer” experiences and knowledge to the table of learning. The first applications of Knowles’ Andragogy were, of course, in university programs, but a close look at Part II of Knowles’ book, the how-to-do-it manual part, shows that his phases for this learning process can be closely matched to the phases for a successful sports coaching program. While his extensive discussion of various types of learning programs did not include sports teams, in his samples of different designs applicable to different programs, Knowles did include “For Your Body – Beginning Yoga; Tennis; Golf I; and Slimistics / Nutritional Diet Control” (p. 151) showing that he envisioned his andragogical model as applicable to all forms of adult learning. It is fair to infer that Knowles might have had his exploratory tentacles out and pointing to and preparing the stage for this study, and others that seem destined to follow.

Another scholarly work on Andragogy that seems to include sporting and other physical and exercise-based learning programs was Wlodkowski’s (1985) book, *Enhancing Adult Motivation to Learn*. He stated that his book is a practical and immediately usable resource for, among others, trainers and coaches (p. ix). Many books

on sports coaching in just about every sport have sighted the very important role of player motivation in achieving excellence, however, Wlodkowski's approach to the player as a learner was unique. His book focused on what needs to come before and after directly training or teaching adults as to encourage learner motivation. His practical guides of little jargon, no psychological babbling, quite a bit of humor, many examples, and meticulous and consistent planning (pp. x-xi) are all as relevant to coaching as they are to academia. Wlodkowski's (1985) Chapter Two on the Characteristics and Skills of a Motivating Instructor opened with a quotation from Joseph Epstein,

What all the great teachers appear to have in common is love of their subject, an obvious satisfaction in arousing this love in their students, and an ability to convince them that what they are being taught is deadly serious. (p. 16)

The chapter then develops what Wlodkowski called, the four cornerstones, "expertise, empathy, enthusiasm, and clarity" (p. 17). In discussing the cornerstone of "Showing Enthusiasm: The Power of Commitment and Animation," he used the eight indicators of high teacher enthusiasm:

- 1) Rapid, uplifting, varied vocal delivery
- 2) Dancing, wide-open eyes
- 3) Frequent, demonstrative gestures
- 4) Varied, dramatic body movements
- 5) Varied, emotive facial expressions
- 6) Selection of varied words, especially adjectives
- 7) Ready, animated acceptance of ideas and feelings
- 8) Exuberant overall energy level. (Wlodkowski, 1985, p. 34)

This issue of enthusiasm stands out as one of the prime, measurable characteristics of a motivating instructor. In Wlodkowski's (1985) framework, it presupposed as given, Expertise – The Power of Knowledge and Preparation; and Empathy – The Power of Understanding and Consideration. He admitted that,

There is no one best way to instruct, but quoting from Ames and Ames (1984) he states that there are certainly better ways than others. He acknowledges that variables such as individual learner differences, type of learning task, learning environment, instruction style, and unconscious motives all work together in such complex ways that no scientific or psychological theory has yet discovered a way to make learner motivation consistently predictable through any method of instruction. (Wlodkowski, 1985, pp. 13-14)

Yet another scholar, Savicevic's (1999), whose work in *Understanding Andragogy in Europe and America*, was alleged to be, "the most comprehensive of all publications on Andragogy" (Wang, 2010, p. 22), gave a certain confidence about Andragogy's future, and the role it has to play in broader learning applications. He "addressed how Andragogy has and will shape the literacy, the workplace, universities, training and research, the humanistic philosophies, the evolution and future of Andragogy and, the practice of adult education" (Wang, 2010, p. 22). This sharing by Savicevic supported the open border mentality that is on constant display by all andragogues. Surely, this includes the field of sports coaching.

Further work by andragogical experts that can be directly aligned to coaching a sports program are Henschke's (1994) IPI Survey instrument and Isenberg's (2006) expansion of the Learning Contract. Henschke's use of 45 questions, which help assess

how closely a learning facilitator is to the ideals of Andragogy, can be easily customized for sports coaching. His IPI was modified by Stanton in 2005 from a 4-point Likert Scale to a 5-point Likert Scale. It is this Modified Instructional Perspectives Inventory (MIPI) that is used in this current research on sports coaching. Another instrument commonly used in Andragogy, the Learning Contract, also appears to be ideally suited to the physical preparation and fitness part of a sporting program. For an individually-focused sports like swimming and diving, as with this study, or golf, it is possible that a Learning Contract might be suitable for the entire season of training and competition. A Learning Contract reduces the problems of dealing with wide differences within any group of adult learners. In sports coaching, one gets players with widely varying backgrounds, previous experience, interests, outside commitments, language barriers (especially in college settings), cultural differences, attention spans, and learning speeds. Isenberg (2007) noted, "Learning Contracts help you avoid the downfall of aiming for the middle" (p. 29). While in a team-focused sport like soccer, a Learning Contract cannot be used for the full training and practice sessions required, this instrument can play an integral role in the coaching of even team-focused sports. While not an andragogical expert, the work by Callahan (2010) on facilitating Physical Education Programs with Andragogy, showed that Andragogy may help physical educators in their battle of increasing physical activity adoption among adults. Callahan explored the process of applying Andragogy's assumptions to adults in a physical activity setting by comparing results for students enrolled in diet and exercise classes that employed a traditional teaching method, and an Andragogy-based teaching style. Although he found no statistical difference in the results, his discussion of the particulars of the study shed important light on the potential

of Andragogy in improving outcomes in physical activity types of courses (Callahan, 2010, pp. viii – ix).

In reviewing Andragogy, transitioning out of academic research into the literature on sports coaching is rather difficult. First, there is such a wide variation in coaching philosophies and practices depending on the sport, the country, the age group, the gender, the level of competitiveness, and particularly, the personal philosophy, and manner of each coach. Second, coaches draw on their personal core beliefs and values, their educational and training background, their sensitivities, their trust factors, and the particular circumstances of the coaching need to select their coaching model (Jenkins, 2010, p. 238). Nicholls and Jones, in their 2013 book, *Psychology in Sports Coaching: Theory and Practice*, gave one of the most lucid accounts of the links between teaching, coaching, sport psychology, and Andragogy. Citing Lyle (2011), Nicholls and Jones (2013) stated, “sport coaching refers to the process of preparing an athlete or team to perform within sports competition, whereas teaching refers to developing a person’s skills not for competitive purposes” (p. 2). “As such, sport coaching is concerned primarily with performance enhancement within competitive sport” (Nicholls, & Jones, 2013, p. 2). Nicholls and Jones then differentiated by sharing,

psychology refers to the scientific analysis of the way human beings behave, think, and feel, so sport psychology refers to the scientific analysis of the way humans behave, think, and feel within sporting contexts, such as training and competition. (p. 2)

Thereafter, Nicholls and Jones (2013) considered the previous work of Nicholls and Callard (2012) citing,

There are two primary goals of sport psychology: 1) to ensure the psychological well-being of athletes and, 2) to maximize performance. As such, sport psychology and coaching have the common purpose of performance maximization of athletes or sports teams. Unlike sport psychology, coaching is not primarily concerned with maximizing psychological well-being, it does have the potential to improve well-being by creating positive experiences for athletes.

(p. 2)

Then, in their Chapter 13 on Coaching Adults, Nicholls and Jones (2013) went on to discuss Lindeman's (1926) key principles among adult learners and then fully develop Malcolm Knowles' eight principles that form a process to help adults learn more effectively as applied directly to coaching. They astutely and systematically used Knowles' eight principles with specificity to a pure sporting application. Their focus in Chapter 13, Coaching Adults, was about Andragogy: learning and motivation; effects of coach behavior; and antecedents of coach behavior. They discussed enhancing learning through control (pp. 136-140), enhancing learning and motivation (pp. 138-139), and enhancing learning via instruction (pp. 139-140). With a clear vision of different learning dynamics for different age groups, Nicholls and Jones included chapters on Coaching Children, Coaching Adolescents, and Coaching Athletes with Learning Disabilities.

Another very relevant study is "The Ultimate Coach: What Great Coaches Get Right" by Hanson, four-time Olympian and coaching consultant, was revised in 2013. Hanson discussed what he considers to be The Top 7 Strategies that the best coaches have mastered. Hanson cited a 2003 Study by the American Football Coaches Association in which player survey data revealed that "90% of players stated that the

coaching staff was very important in determining which college to attend (AFCA Study 2003)” (Hanson, 2013, p. 5). He also referenced a 2007-2008 Barriers NCAA Study found that, “42% of the 9,000 student athletes surveyed would not consider a future in college athletics because of the poor relationship with their college sports coach or their coach just prior to college” (Hanson, 2013, p. 4).

Hanson (2013) stated that great coaches know that they are the most significant determining factor in athletic performance, and quoted liberally from Wurthner’s Study of the 2008 Canadian Teams for the Beijing Olympics. The study found that,

The most significant contributor to a medal winning performance or a personal best performance was a strong, high quality, coach-athlete relationship. This was ahead of four other factors including, effective training environment, management of the competition environment, athlete self-awareness, and strong support network. (Hanson, 2013, p. 4)

In all the top seven strategies, an athlete-centered approach was the key. In Andragogy, the facilitator is encouraged to see the learner as a whole person, with his/her own interests and goals, past experiences, and skills and abilities. The facilitator does just that – facilitates learning and improvement – s/he encourages, motivates, provides feedback and resources, and helps the person to set and reach their goals. The Ultimate Coach, without ever using the word “Andragogy,” exactly describes and unknowingly prescribes the andragogical process.

Hanson (2013) spoke of ‘Best Coaches’ and shared:

In the 2008 Evolution of the Athlete Conference survey, coaches were asked ‘What characterizes a phenomenal coach?’ The results showed how important the athlete coach relationship is.

- 1) 61% said phenomenal coaches not only focus on the technical and physical aspect of the athlete, but see the athlete as a ‘whole person’ with a life outside of the sporting environment.
- 2) 55% of coaches also stated the importance of being able to teach and have strong communication skills.
- 3) 33% suggested coaches must always be looking for ways to improve themselves, their understanding and be innovative in their approach to creating better outcomes for their athletes. (pp. 5-6)

In 2008, Morris-Eyton researched the coaching of swimming amongst the Masters’ adult population of South Africa as she noted the increase in the numbers of mature aged participants in the sport. Her research was in an informal, non-competitive YMCA program, but Morris-Eyton concluded that andragogical principles and teaching methods of these highly motivated Masters’ swimmers could be applied to help improve coaching through flexible and accommodating practices, and consequently, to ensure higher outcomes.

Morris-Eyton’s work revealed several encouraging aspects about Andragogy and coaching Masters’ swimmers, a key one being, that these older swimmers adds further complexity because of the “diverse variety of needs, motivations and health related problems they bring to the training environment” (p. 65). Among several findings, she pointed out that coaches need to,

- Understand the needs and motivation for adults coming into a swimming training environment.
- Demonstrate awareness of the physical and physiological differences that adult swimmers present during training and make the necessary adjustments.
- Engage in democratic coaching strategies with effective communication between the coach and swimmers. This is crucial to developing an inherent understanding of what the training and performance goals are and how the coach is going to assist in their achievement.
- Increase the amount of interaction between the coach and swimmer to enhance adult motivation and to fulfill the self-directedness of the adult swimmer. (p. 65)

The above references to scholarly research in sports coaching that marries with Andragogy are strongly supported by numerous books, websites, and other coaching information in all sports. The following review has been limited to four major sports: two team sports – Soccer and Basketball, and two individual sports – Golf and Swimming, the latter being the case study for this research.

Soccer

Soccer, a sport played across Britain and Europe from the eighth century, developed in a spontaneous and diverse manner until 1863 when, The Rules of Football, were first established. Today, “The Beautiful Game,” as it is known worldwide, is played in every country in the world and coaching of the game in every age group is big and

serious business. None more so than at the varsity and professional levels where coaches attempt to instruct adult players in the techniques required for individual skills and the tactics and team strategies required for victory. In the United States, the governing body for coaching education is the U.S. Soccer Federation (USSF). In describing its licensing pathway, the Federation stated that its aim was to expose coaches to high quality programs. A coaching information video on this website gave its coaching philosophy:

Developing players is a combination of proper coaching and setting up a positive learning environment. In the flow of the game, players have to think for themselves and make their own decisions. They cannot rely upon the coach to solve the problems. The coach is the facilitator of the learning environment and he or she should guide the players during the process of individual development. By improving the coach and creating a better training environment, our players will continue to develop (USSF, n.d., para. 3).

The website did not use the term Andragogy or self-directed learning, or even adult-education, yet its message is one of Andragogy.

In England, the governing coaching body is the English Football Association (FA). The website stated that each year the FA runs 57 different coaching courses that sit across seven coaching pathways. This researcher chose to investigate the UEFA A License because he had completed this course in 1998 and wished to look for any progress along andragogical lines in the way this course was presently structured and presented. The site stated that varied coaching styles and methods are encouraged, and that the course curriculum includes theoretical aspects of problem-solving exercises, performance and match analysis, strategies and tactics, principles and systems of play,

communication skills, player development, psychology - how players learn, what motivates them, and planning for performance. Reserving judgment, since this perception was based only on what was presented on the website, it would appear that the English course is still teacher, content, and process-centered (For All, n.d.).

Vogelsinger (1982), former Goal-Keeper and now coach, tells in his, *The Challenge of Soccer* that, “Coaching is the ability to resolve problems, to recognize and develop natural abilities, to motivate and instill a sense of purpose, and to recognize and remove inhibitions so that the players and the team may realize their potential” (p. 279). He maintained that the trademarks of successful coaches, show case their “human qualities, personal abilities, and their professional knowledge. The coach instantly becomes a teacher, leader, psychologist, public relations representative, among several other things – anything basically that take the players from here to there as charted by both parties” (p. 279). Particularly at the high school and college level, Vogelsinger believed that “the coach must have a common-sense approach to the game, ensuring that it stays within proper perspective and, within the institutional and administrative policy” (p. 279). He stressed that “the key goal is objectivity and allowing all stakeholders to experience enjoyment and satisfaction,” (p. 279) and maintained that although the improvement of personal performance is understandably the main objective, there should be an attempt to expose all athletes to all aspects of the game, including its history and future projections. As much as what Vogelsinger has said of coaching is thorough and correct, there is a more simple, true, and all-encompassing definition of coaching that umbrellas every other definition, and that is, “coaching is the purest form of teaching” (as recalled by the PI in a personal communication while attending a coaching conference in

Canada hosted by the Canadian Soccer Association in September, 1991). Vogelsinger also discussed the role of coaches with superstar players. He believed that a super coach would more likely come from a mediocre player as less talented players tend to work harder and be better students of the game.

Basketball

The inventor of basketball, James Naismith's very character epitomized Andragogy. He was self-driven and self-taught, and used all the tools and inspiration handed to him by his parents, his teachers and especially, his uncle, Peter Young. His "uncle wanted him to learn to solve problems by himself and not take foolish chances and this was a tough lesson for Naismith" (Rains & Carpenter, 2009, pp. 1-17; Wyckoff, 2008, pp. 5-6). For young Naismith as he faced the challenges in his hometown, near Almonte, Ontario, Canada, growing up was tough. From the illness and death of his father and mother within two weeks of each other, Naismith quit high school and compromised with his uncle Peter to pursue being a Presbyterian Minister. He soon found a love in helping church members learn sports for he was very good at many. He took up a YMCA sports coaching job in Massachusetts where he caught the eye of college scouts and was drafted to Yale's football team. There he also student-taught baseball, field hockey, football, and rugby. He was commissioned to invent an exciting indoor game and borrowing from his "duck-on-a-rock" exploits back in his hometown, he created the game of basketball using peach baskets and forming 13 rules, all of which are still standing today. Naismith became the director of physical education at the largest YMCA in the country, then later, stricken by the death of his brother, he entered medical school. In 1916, he became a Minister in the United States Army where he helped American

soldiers during WW I. In 1925, Naismith, became an American citizen and in 1936 he was invited to the Olympic Games in Berlin to witness the first basketball games. He died in Lawrence, Kansas in 1939, a relatively poor, but supremely, rich man and no other person better depicts the storyline, “rough seas make great sailors.” This message is Andragogy’s hugest advocate. It expresses freedom within a structure, and a constant striving to excel. Naismith was a consummate student and teacher of basketball, but he was more so, a consummate student and teacher of life (Rains & Carpenter, 2009; Wyckoff, 2008).

The National Association of Basketball Coaches (NABC) was founded in 1927 by legendary University of Kansas coach Forrest C. "Phog" Allen. In 1992 the NABC strategically moved its national office to Overland Park, Kansas to be in closer proximity to the NCAA headquarters. The relocation was made in an effort to improve the working relationship with the NCAA. In 2000, the NABC held its “Stages Century Celebration” during which John Wooden was named Coach of the Century, and Oscar Robertson named Player of the Century. UCLA’s Wooden, arguably the most successful coach of all time, shared some of his personal philosophy in his 1997 book, “A Lifetime of Observation and Reflections On and Off the Court.” An opening tribute by Bill Walton, college Basketball Hall of Fame and NBA Hall of Fame, stated “John Wooden is the greatest basketball coach of all time, but what I learned from him had much more to do with living life than with playing ball” (p. vii). In his reflections, Wooden (1997) suggested that the gym is a classroom. He discussed the detailed plans he made for his training sessions – “otherwise, you waste an enormous amount of time, effort, and talent” (p. 132). He expressed that he recognized how important it was to learn about each player

and then study that player so he would know what the player needed. Coach Wooden described how he became wrapped up in the lives of his players, and that “there was a great deal of love involved in my coaching” (p. 151). The NABC (n.d.) website offered coaching resources through a team of experts which the website stated are all certified in “behavioral style analysis and interpretation” (para 1). The website continued that, “most are listed as, personal coach, or, work/life coach, or career coach” (para. 2). The website further expressed its philosophy similar to career and business coach, Dave McKeon’s version that, Coaching is a relationship of equals, where accountability for moving oneself forward lies with the individual being coached, and responsibility for providing the insightful and challenging coaching to support that happening for the client lies with the coach. A search of several websites related to coaching in the sport of basketball revealed little reference, outside of these for-hire personal coaches, that made any mention of the principles and practices of Andragogy. Also, while there were several useful coaching literature that discussed exchanges between coach and athlete at the college and professional level, they too failed to make any connection to Andragogy.

Auerbach, in the classic book, *Bird on Basketball* (Bird & Biscoff, 1983) stated that,

Larry Bird has come closer to reaching his potential than any athlete I have ever seen. He was born with great hand-eye coordination, but then he learned good form and all of the game’s key skills ... Larry Bird is the best-motivated athlete I have ever seen in my life. (back cover)

Auerbach paid much tribute for Bird’s success to psychology, self-motivation, and the power of the mind. Likewise, Michael Jordan (1994), in his book, *I Can’t Accept Not*

Trying, declared that goal-setting and overcoming obstacles, in a “Step by Step” manner is the only way to accomplish anything. He spoke about confronting fear and self-doubt, embracing teamwork, never parting from fundamentals, and leading by example, as the lessons he learned from his parents and his UNC coach, Dean Smith (Jordan, 1994, p. 36). Dean Smith (2004) added much to the discussion of the player-coach relationship. He remarked that, “the best leaders really do care about the people entrusted to them and want to see them succeed” (p. 61). Smith suggested that such leaders have carried in them a sincerity and gentleness that made followers want to be guided by them. He suggested that college faculty carries similar leadership qualities only if they display a caring spirit for their students’ end-of-semester outcomes and life-long learning application of the subject matter. As a coach himself, he suggested that coaches are the real deal and a great deal was needed to facilitate and encourage athletes if they were to reach their fullest potential in the sport that they love dearly. ‘Teachers and coaches that demand much from their students and athletes but displayed a good job in preparing and assisting in their learning are the ones that are remembered and cherished by the students and athletes (Smith, 2004, pp. 61-63). Smith went further to suggest that students and athletes that are encouraged to learn and excel, to unleash their potential, are the ones that have shown to cherish the inspiration and help they received from their respective teachers and coaches. He believed that caring and honest teachers and coaches have guided their learners to create a greater purpose to learn and to increase their desire to be responsible and take ownership of their learning beyond the teacher-coach instructions, facilitations, and constructs. Smith advocated that successful coaching is all about a trust reciprocity and,

“caring, honesty, teamwork, and equal representation, goals and expectations, building confidence, and continuous learning” (Smith, 2004, pp. 61-278).

Further, Coach Krzyzewski, Coach “K”, in his book, *Leading with Heart* (Krzyzewski & Phillips, 2000), stressed the need for continual learning by coaches. He stated that this needs to be a priority if one is to stay ahead of the learning curve. He pointed out that after Duke’s basketball team had won two consecutive national championships with him as head coach, he thought to himself, “So where was I supposed to go and learn after that? How does a successful leader continue to get better?” (p. 227). Coach K was a man that valued the need to learn continually. He accepted being an assistant coach to two other stalwart coaches with the 1992 Olympics Dream Team. There, he stated, he was exposed to an array of new people and styles of play, coaching, and competitive situations. All these new experiences provided a wealth of knowledge but also, they helped reinforce his confidence in himself – becoming self-actualized. To learn more and experience better things, he engaged in other than coaching experiences that helped his abilities to speak in public and to groups that he could learn from including, varying business and life-coaching engagements. The challenge grew as he went from forum to forum, level to level, and the varying questions and appeals for further clarification helped him understand how much he did not know very well and enabled him to master the skill of communication. Those set of changing experiences he shared, brought more wisdom to him. He stressed that continual learning is the key to effective leadership and self-discovery because no one can know everything there is to know. He pointed out that a great deal of learning not only comes from successes but especially, failures and defeats. Learning comes from possessing an attitude to get better

and to improve, and to lead oneself to and through situations (pp. 227-231). Self-direction was seen to be a master key in Coach K's coaching-learning philosophy and his coaching and learning experiences encompassed adults at the college level as well as with full-fledge, professional NBA players and coaches.

Golf

The PGA, established since 1916, has a website that is very user-friendly and caters for a variety of needs and interests. There was no direct information on the Association's coaching philosophy but the website suggested that choosing a coach is as individual as choosing a doctor. It encouraged athletes to seek compatibility between themselves and the instructor with regard to 'personality type, beliefs, and organizational coaching philosophy (PGA, n.d., para. 1). Under its link "find the perfect course in your area", the website recommended choosing an instructor who has the ability to relate to the golfer's individual needs. The checklist includes questions that ask, does the instructor: use modern methods of communication that provides the athlete instant feedback and contact; have the education and experience to take the athlete's game to any level he or she desires; have a history of creating positive results for the clients he or she serves? The website recommended that one cannot get any better golf instruction than from a member of the PGA or LPGA. It suggested that the programs that the men and women coaches undertake are intense, include first-hand experiences over a longer course of time, and the coaches are constantly required by the organizations to re-educate themselves on a regular basis. The organization recommended that the instructor ultimately chosen, should be someone to trust, can communicate and relate to as a person foremost, and possess the skills and tools to get the athlete where he or she wants to go as

a golfer. The instructor's intuitive ability to know when to fix the swing and when to leave the swing alone also remains a constant. The other variable factors, like similar interests and beliefs off the course, can add up to establishing a great relationship with the golf instructor, but the bottom line is to look for an instructor who is still "practicing" golf instruction - much like a doctor "practices" medicine, on a full time basis. It is in this general sense of good communication, feedback, relationship, etc. that the PGA shows itself as related to the principles of Andragogy. A further search of golf coaching books and the internet, especially the many golf video instructions, were very broad and recommended good Pedagogy and sport psychology, like dealing with anxiety. For example, there are You-Tube videos that teach adults how to improve their swing, with drills, and personalized lessons that guarantee 95% success rates but none mention the term Andragogy.

There are many books on coaching golf that address the same characteristics of the adult learner discussed by Malcolm Knowles. Harvey Penick and Shrake's (1992) *Little Red Book, Lessons and Teachings from a Lifetime in Golf*, for example, addressed freedom in learning. He said that when he is teaching, "I never say never, and I don't say don't whenever I can help it" (p. 71). He maintained that his refusal to use these instructions when he teaches his students, comes with very good reason - imagine "being on the range with club in hand and need to learn while under the stress of being watched and mentally graded" (p. 71). Penick shared that while someone is under the stress of performing, any negative thought brought on by anyone but especially, the mentor-coach-teacher, is, "pure poison" (p. 71). His beliefs would suggest that, any over-the-shoulder coaching is ill advised. His overall message pointed to the need to allow the athlete the

freedom to take what was given to him/her by the coach previously, and encourage and empower them to explore, experiment, and make self-driven calculations enroute to becoming the athlete they see themselves becoming. Another classic, *The Golf School*, by Jim McLean (1999) addressed the four ways that people learn – (i) verbal communication (coach’s instructions or audio recordings, words of a book that speak at you); (ii) visual demonstration (pictures, videos or live performances); (iii) kinesthetic experiencing (feeling what one’s body is doing throughout the motion s/he is making or trying to learn); and (iv) practicing and rehearsing through drills which help in the filtering and purification process. McLean believed that it is this fourth process of learning that synthesizes everything. His ideas are therefore clearly aligned to the andragogue who believes that the releasing power of learning is in the doing. McLean also discussed the coaching issue of a player needing to unlearn in order to learn. He stated, that sometimes, when a player did not have good instruction in their formative years, then both coach and athlete must agree to wipe the slate clean (pp. 4-6). This unlearning-to-learn component is an ever-ingrained encouragement of Andragogy’s teaching/learning philosophy. McLean also aligned his coaching philosophy to that of the andragogue in his discussion of the implications of the fact that golfers learn in different ways. He stated that at his academy,

We do not teach a strict system. However, I do have a system and a strict method of how we teach. I leave a lot of room for individual differences, allowing my teachers to use all their creativity. We do not believe that everyone will fit into the same golf swing. (pp. 6-8)

McLean encouraged both teacher and learner to run freely as they circumnavigate their exchanges but advised that they should not go outside the “corridors of success.” Everybody is built differently, so there is a great deal of different ways to do something and do it well (p. 7).

Another aspect essential to Andragogy is the role of trust and mutual respect. This principle forms the base of the coaching philosophy to which Jack Nicklaus (2005), in his book, *Golf My Way* attributed his success. He talked about the relationship between his coach, Jack Grout, and himself. Essentially, Nicklaus maintained that there would likely be no success if the coach and student-athlete did not share in trust and/or respect reciprocity (p. 277). Nicklaus stated, “many coaches could teach the few key fundamentals but what stood out in Grout far beyond his teaching and tuning of the mechanics, was the degree of interest he took in me as a person” (p. 227). This commitment was observed in the huge amount of time and energy that Grout gave so generously and graciously over many years. Grout, Nicklaus claimed, also exhibited a great deal of patience in Nicklaus’ own impatience and frustration. Nicklaus further claimed that Grout’s encouragement was unrelenting and always, upbeat. He also shared that “the main difference between a good and great coach was, that great coaches, believe in their player-students more than they did believe in themselves and that great coaches can bestow no greater gift” (p. 277). Nicklaus further discussed an andragogical tool, Learning Contracts, without ever using the term Andragogy. He stated he managed himself by observing, analyzing, and strategizing in order to attain his desired outcomes (Nicklaus, 2005, p. 283). In an affable manner, Nicklaus pointed out just how yoked together course management and self-management were and stressed that written, self-

development plans were “mostly, a learned quality” (p. 283). He also talked about the value of age and learning from experience,

A tour player at 25 is unlikely to be as good at thinking his way to low scores as he will be at 35, no matter how mentally gifted or emotionally stable he is by nature. The reason of course is that experience counts as much as intelligence and I was fortunate to possess an excellent memory. (p. 283)

Nicklaus (2005) further encouraged the more mature player to take note that, “when the chips were down, his strategic approach was smart as opposed to stupid” (p. 283), in essence, he chose “to apply his feelings, education, experiences, associations, and concepts” (Glancy & Isenberg, 2013, p. 23) to better guarantee the best, most thoughtful course of action. Nicklaus indicated that he became increasingly convinced that the key to his achievements lay in his preparation and personal attitude to compete and overcome. He would self-talk about the things that he had learnt and, he coupled that with the things that he garnered by his wholesome self, using his very own personal, learning contract and strategizing compass (Nicklaus, 2005, p. 285). Also tightly related to Andragogy, Nicklaus, lamented how horrifying it would have been to have someone super analyzing him and talking mechanics during all training sessions and even in competition – “my goodness, that wouldn’t have helped me one bit, the reverse in fact” (p. 289). Speaking of his coach, Jack Grout, Nicklaus stated that his “chief objective ... was to build him up, to encourage him, to help him believe in himself” (p. 291).

Swimming

The American Swimming Coaches Association (ASCA, n.d.), with its national headquarters located in Fort Lauderdale, Florida, has a busy, informative website. In its

website, the ASCA described itself as having an active mentorship program for young coaches, and reported that it has been working extensively on supporting male swimmers in inner cities, and is committed to preserve, protect, and expand NCAA swim programs. The ASCA also offered many Training and Workout resources, from Developing a Perfect Pull, to Gaining Powerful starts and Turns and, also, provided details on a number of upcoming regional, national, and world swim coaches clinics. A thorough search of all coaching related material failed to produce one over-arching coaching philosophy for the Association. However, a particular Level 2 Clinic, taught by John Leonard, the Executive Director of the ASCA since 1985, and an ASCA Level 5 Coach, hints at the principles and practices of Andragogy. Leonard (ASCA, n.d.) stated that the course is about “fundamentals.” He explained that the course was primarily for constructing strokes and correcting strokes. He suggested several questions and provided encouraging themes to help discern the correct approaches to coaching – ‘When constructing a stroke, which fundamentals does one teach first – what is the progression? What are the teaching techniques? When correcting strokes, how does one spot the difficulty and how to approach it? Coaches will view Olympians and look at the latest trends and techniques but will spend the majority of the time talking about the young swimmers that they coach. Tons of video clips are available and presentations are very energetic! He further suggested that coaches will learn things that they can put to use the next day’ (ASCA, n.d.).

The website stated “Leaders are not born, they are made. This course can help make them” (ASCA, n.d., para. 1) and suggested that coaches and their styles and methods would be developed from the association’s highly successful clinic course. It

further boasted that its Leadership School manual teaches specific skills and steps that help coaches master how to lead children, or other adults, effectively (ASCA, n.d., para. 2).

Leonard was cited in *The Swim Coaching Bible* of Hannula and Thornton (2001) as having discussed “how to adapt your coaching approach to meet the needs of the entire spectrum of swimmers. He specifically addressed differences in age, ability, and gender, as well as, the particular concerns of high school and college teams” (p. xi). The sweet spot of Leonard’s declaration came when he wrote in his Chapter Four contribution, “Tailoring Your Approach to Specific Competition Levels,” in Hannula and Thornton (2001) that,

Coaches who work with multiple skill, interest and ability levels are adept at changing their style and approach to fit the situation, in some cases, hour by hour. The flexible mental approach comes from the ability to create true empathy with the athletes in the group. This empathy, in turn, comes from the coaches’ honest desire to serve the needs of their athletes. (p. 36)

These references to empathy, flexibility, and servant-leadership, are hallmark traits of the basic, and simplest andragogue. Many of the books on coaching swimming have a strong psychological bent. In Chapter Four of Hannula and Thornton (2001), Leonard went a step further to present a more precise example of which one component constitutes the best coach. In Leonard’s revelations in his Chapter Four, he spoke of Indiana University’s coach, Doc Counsilman’s psychological coaching style where Counsilman asked attending coaches to answer the question, “who would win a swim meet if four coaches given identical teams: a physiologist, a biomechanist, a nutritionist,

or a psychologist? His answer, of course, was the psychologist, because the psychologist could best communicate with the team” (pp. 37-38). In his Chapter Four of Hannula and Thornton (2001), Leonard also addressed the differences in coaching styles as athletes changed from kids, to high school, to elite collegiate, national, and international-level swimmers. He stated that for the older elite swimmers, “effective coaching now depends on individualizing training to be maximally effective within the team concept” (p. 45). He stated that for the truly elite athlete, “coaches must be prepared to shift their approach to something close to one-on-one coaching with a plan for each individual swimmer” (as cited in Hannula & Thornton, 2001, p. 45). This is the theme of the andragogue use of a Learning Contract for self-directed learning. This theme was again addressed in Chapter Eight of Hannula and Thornton (2001), where Sterkel spoke on the unquestionable contribution of planning and its sizable impact on successful swimmers. All types of planning were discussed, and her principles directly aligned with Andragogy when she showed, by her tables and master calendar of events, that athletes and coaches were in fact engaging in learning contracts with a measurable focus on personal initiative and responsibility (pp. 97-110).

An important and longstanding institution of learning and teaching is the, ever-faithful, dependable and holistic-minded, Young Men’s Christian Association (YMCA). This institution is one that epitomizes andragogical principles greatly because of its holistic approach to teaching and learning. In its, *“Teaching Swimming Fundamentals”*, the YMCA declared its purpose as “using programs as a vehicle to deliver our unique mission of putting Christian principles into practice to build a healthy body, mind, and

spirit for all. The goal is to help people grow spiritually, mentally, and physically”

(Sammann & Slane, 1999, p. ix). The Y’s seven main objectives were outlined:

Grow Personally – build self-esteem and self-reliance; Teach Values – develop moral and ethical behavior based on Christian principles; Improve Personal and Family Relations – Learn to care, communicate and cooperate with family and friends; Become Better Leaders and Supporters – Learn to give-and-take necessary to work toward the common good; Develop Specific Skills – Acquire new knowledge and ways to grow in spirit, mind, and body; and, Have Fun – Fun and humor are essential qualities of all programs and contribute to people feeling good about themselves and the Y. (pp. xii-xiii)

The Y rallies around the secured belief, feelings, and behaviors that teaching styles and methods are used to accomplish the involvement of students in the learning process as this would have the desired long run effect. To attain this, the Y stressed that the most appropriate styles and methods of teaching must be used. They also stressed the need to increase the ability of leaders to observe performance and provide effective feedback. Finally, the Y believes that its leaders learn how to create an atmosphere in which students feel comfortable learning at their own pace. Together, these make a huge case for student-centered teaching styles and methodologies (pp. 46-57). This all seems to fit perfectly with the learner-centered andragogical styles and methods of teaching.

Summary

Almost 100 years since Lindeman’s classic “The Meaning of Adult Education”, educators are still trying to “free education from (its) stifling ritual, formalism and institutionalism” (Lindeman, 1926, p. xiv) and striving to incorporate individuality,

freedom, and respect into the accepted methods of educating our population over the age and generation continuum. Further, we are still trying to confirm that learning, in fact takes place in more than the classroom-only setting. When thinking of adult learning, the principles and practices of Andragogy have proven to be useful and applicable. In the field of sports coaching, as recounted by so many great coaches of athletes – great and not so great, alike, the application of the principles and practices of Andragogy offers new horizons. Andragogy, defined as “the art and science of helping adults learn”, and in the case of sports - perform at their highest level, is new only in the use of its name as applied to coaching, but the principles and practices have been employed by successful coaches, for hundreds of years. To quote from one of sports all-time greats, Coach Wooden (1997), “How close to 100 percent of our potential can we get? That was my challenge to them: how close can we get to perfect” (p. 142). Andragogy provides a humanistic, philosophical perspective that broadens the traditional parameters of learning. Since its inclusion in the Webster Encyclopedic Unabridged Dictionary in 1996 (Wang, 2009, p. 20), its philosophy and methods have spread internationally and across many disciplines and applications largely because a significant number of facilitators/educators have recognized its value. The addition of the term Andragogy to the dictionary may be seen as relatively recent, but many educators of adult education know it to be quite age old in its practice, only lacking in name. So, the once nameless “orphan” of adult education, has now found its “biological” parent and with it, the scope and horizons are now limitless.

Chapter Three: Methodology

Introduction

This research uses a case study approach that combined qualitative and quantitative instruments in the hope of accurately assessing, from both the coach and the athletes' perspectives, the actual and perceived coaching principles and practices employed in the Lindenwood University Men and Women's Swimming and Diving programs in the fall 2016 season. As a case study, the participants were of a non-choice selection nature – a purposeful, non-probability, convenience sample. This sample method was chosen because participants “are likely to be knowledgeable and informative about the phenomena the researcher is investigating” (McMillan & Schumacher, 2006, p. 319).

This study's key focus was to investigate and explore the use of Andragogical principles and practices by the Swimming and Diving coach. Lindenwood University is a mid-size, Midwestern private university located in St. Charles, Missouri. With 55 athletic programs and over 1,750 student-athletes, the university has one of the largest athletics programs at any college in the United States. Since 1998, these programs have captured 68 national championships and have had 10 student-athletes or alumni compete in the Olympic Games. The Swimming and Diving Program started in 1999. The Head Coach was hired on a full-time basis in 2011. The demographics and classifications of the student-athletes vary from year-to-year, but tend to be approximately 50-50 male / female ratio. On a year-by-year basis, the program's overall size ranges from 50-70 students. All the student-athletes involved in this research must have met all three of the following requirements:

- Be at least 18 years of age,
- Be enrolled as a full-time student, and
- Meet the minimum GPA and code-of-ethics standards of Lindenwood University, the Mid-America Intercollegiate Athletic Association (MIAA) and, the National Collegiate Athletic Association (NCAA).

This chapter is organized to first provide the rationale of the study and the research questions involved. This is followed by a discussion of the study's overall design, with the importance of triangulation where various methods and approaches to questions are brought into a coordinated understanding. The chapter then goes on to describe the study's population, and the timeline of the research procedure. Next, the chapter provides a detailed description of each research method used – for the Head Coach, interviews and training/practice observations along with the use of a survey instrument, the quantitative-inclined, Likert scale, MIPI; and for the student-athletes, a combined open-ended questionnaire format and the MIPI, and a focus group session. The chapter concludes with an account of the techniques used for processing and analyzing the information collected, as well as notes on the validity and limitations of the study.

Rationale and Research Questions

Immediately preceding chapter the literature addressed Andragogy and adult learning in educational institutions, business organizations, and life coaching programs. It was clear that there was a great need for research on applying Andragogical principles and practices to sports coaching in general and in particular, to varsity level sports coaching. Principles and practices such as self-directed learning (SDL) and the use of learning contracts (LCs) appear to be particularly suited to athletic coaching, yet, there is

little evidence, that after decades of extensive and successful use in especially the teaching-learning environment of the classroom, that these principles and practices have been formally applied to sports coaching. And while the main focus of this study is to explore to what extent, if any, the Head Coach of Lindenwood University's Men and Women Varsity Swimming and Diving Teams employs Andragogical Principles and practices as part of his coaching philosophy and strategies, it also sought to analyze the realities and the perceptions, the actuals and the ideals, that both coach and student-athletes have of the coaching process.

This study has four main research questions:-

- (i) In what ways, if any, does the Coach of the LU Men and Women's Varsity Swimming and Diving Programs practice the principles of Andragogy in his coaching?
- (ii) In what ways, if any, does the coach of the LU Men and Women's Varsity Swimming and Diving Programs perceive that he practices the principles of Andragogy (using Henschke's [1989] Modified Instructional Perspectives Inventory [MIPI])?
- (iii) In what ways, if any, do the student-athletes of the LU Varsity Swimming and Diving Programs perceive that the coach practices the principles of Andragogy (using Henschke's [1989] Modified Instructional Perspectives Inventory [MIPI])?
- (iv) What is the comparison between the coach's perception and those of the student-athletes regarding the ways in which he practices the principles of Andragogy?

Research Design

The choice of a research design is dependent on several factors. The most telling factor, as espoused by Bruce (2013) “is best determined by the nature of the research problem” (p. 33). Bruce cited Cornbleth (2008) and described her research problem as one that appeared to lack information and she used this to justify her choice of a methodology centered on personal interviews (as cited in Bruce, 2013, p. 33). The nature of this research was to seek unknown answers to known questions related to the use of Andragogy in a particular varsity level sports program. The study drew on other related works, but is ground-breaking in the area of varsity sports. The study therefore requires a comprehensive, holistic approach in which, as Walcott (2009) described, the researcher “invites the reader to look through his eyes at what he has seen” (p. 27). The study was designed to start with a straightforward description of the setting and events, and develop into a storytelling of the experiences of the coach and student-athletes. Isenberg (2007) warned that with regard to qualitative research, “there are no value-free or bias-free designs, and that the values and beliefs of both the researcher and the phenomena studied are important variables” (p. 50). She also stated, quoting from Gay, 1966, that an interpretive inquiry methodology is best when a study,

is not just concerned with describing the way things are, but also with gaining insights into how things got to be the way they are, how people feel about the way things are, what they believe, and what meaning they attach to various activities.

(Isenberg, 2007, p. 51)

Acknowledging this, the interpretive inquiry method, set within a case study design, was adopted for this study. Yin (2009) shared that, “Case Studies, like Experiments, are

generalizable to theoretical propositions,” (p. 15) although not to populations and universes. In this sense, the case study does not enumerate frequencies and lead to statistical generalizations, but it does facilitate expansion and analytical generalization (p. 15). Case studies are purposeful and convenient. Isenberg further quoted from Creswell (1998) and stated that “a case study is an exploration of a bounded system over time through detailed, in-depth data collection involving multiple sources of information rich in content” (p. 52). She also supported this with a quotation from Yin (2003) which stated that “a case study’s unique strength is its ability to deal with a full variety of evidence – documents, artifacts, interviews, and observations” (p. 52). One of the few published papers that directly relate to this study was Morris-Eyton’s 2008 work on Andragogy and a South African Masters swimming program. Morris-Eyton explained her choice of the case study design by stating that, “a case study was selected as it allowed detailed and rich information to be gathered and recorded” (p. 29) and helped in that it provided “a detailed description of the coaching environment, and (allowed her to) seek interpretations and explanations of the athletes’ interactions between each other and with their coach” (Morris-Eyton, 2008, p. 29). She further stated, “by developing a detailed understanding of the learning environment, a platform to explore the principles of adult education and learning within this particular context was created” (Morris-Eyton, 2008, p. 29).

Creswell (2013) noted that there might be limitations with the case study approach, namely, “a lack of data to provide an in-depth picture as well as limiting the boundaries in terms of time, events, and processes” (p. 64). This served as a caution to this study as the Principal Investigator (PI) had to negotiate with the Swimming and

Diving Coach, the specific times to observe training sessions, and was careful to include a representative cross-section of training. However, because of the program's competition schedule, and the staggered manner in which the Coach had to arrange his training and practice sessions to coincide with each group (swimming, diving, and spin-offs within each such as training of "sprinters" versus "distance" events), as well as catering to individual student-athletes' class schedules, several timing issues arose.

Triangulation (Trustworthiness and Transferability)

The case study design employed for this research uses a mix of enquiry methods (qualitative and quantitative) and this, according to Jones-Clinton, 2011 quoting Sharp and Westat (1997) was intended to decisively "sharpen the understanding of the research findings" (p. 47). Jones-Clinton continued to quote Tashakkori and Teddlie (2003) and cited that the mixed methods approach "may provide a complete picture of a research problem" (p. 47) or question. Jones-Clinton went further to quote Greene and Caracell (1997) and suggested that with the mixed methods approach, one "can yield richer, more valid, and reliable findings than evaluations based on a single method" (p. 47). There are other writers, including proponents of the mixed methods, as with Tashakkori and Teddlie (2003) that spoke of the benefits of using the single method approach and these include, "reduced costs; lesser training of the researcher; zero chance of having duplicitous information; reduction of workload and need for background information; and, a greater ability to provide analyses, conclusions and recommendations" (p. 47). However, for the research questions of this study, in order to "uncover trends in thought and opinions, and go deeper into the problem" (Wyse, 2011, p. 1); and to afford a methodology that was 'flexible rather than fixed' (Robinson, 2011, p. 331); and one that

was “inductive rather than following a strict sequence or derived from an initial decision” (Maxwell, 2013, p. 2), the mixed methods approach was deemed best. The blend however, is much more qualitative than quantitative, but the quantitative data sources of the closed-ended questionnaire, and the MIPI Instrument, are expected to add much rigor to the generalizable stories derived from the interviews, pool-side observations, open-ended questionnaire, and focus group discussions. This methodological triangulation is strongly recommended for primary research in new areas of investigation. While quantitative methods tend to provide objectivity and readily useable statistical data that can be used in future planning, qualitative methods can provide a limitless and continuous volume of information through transcriptions (Maxwell, 2013, pp. 102-105, 128, 137). But most importantly, for a first-study of this kind, qualitative records are more sensitive to the truths that come out in observations, and participants’ storytelling of their experiences (Walcott, 2009, p. 27). Also, Maxwell (2013) was of the compelling view that in qualitative research there may be aspects that,

need to be reconsidered or modified during the study in response to new and emerging developments or to changes in some other component....., and the activities of collecting and analyzing data, developing and modifying theory, elaborating or refocusing the research questions, and identifying and addressing validity threats are usually all going on more or less simultaneously, each influencing all of the others. (p. 2)

Olsen (2004) contested that, despite some people who argue against mixing qualitative and quantitative methods “recent developments in the philosophy of science have argued that the two traditions should not have a separate, but equal status, and

should instead interact” (pp. 2-4). In her work on triangulation, Olsen further presented three positions, empiricist, constructionist, and realist, and suggested several empirical examples that illustrate the realist position and its strengths. She resolved that triangulation is more than serving the purpose of validation but at “deepening and widening one’s understanding” (p. 6). She petitioned that ‘triangulation, as with pluralism, tends to support interdisciplinary research rather than a strong bounding discipline of sociology’ (pp. 10-14). Olsen maintained that data triangulation validates one’s data and research by cross verifying the same information. This triangulation of data strengthens one’s research paper because the data has increased credibility and validity and occurs when multiple theories, materials or methods are used. Lincoln and Guba (1985) agreed that triangulation can enhance research projects and make them more trustworthy and the findings, conclusions, and recommendations, more transferable (pp. 73-78). This study used (i) data source triangulation – coming from different data sources as with primary and secondary research; and, (ii) methodology triangulation - combining multiple methods to gather data, such as documents, interviews, observations, questionnaires, surveys, and focus groups. The structure of this research design has each of the component parts working together to address the research questions.

The Case Study

This study researches coaching at Lindenwood University (LU) in the Men and Women Swimming and Diving collegiate-level program. LU’s athletics is one of the largest athletics programs at any college in the United States. The school has 55 athletic programs and over 1,750 student-athletes. Since 1998, these programs have captured 68

national championships and have had six student-athletes or alumni compete in the Olympic Games (LU, 2015).

Athletics at LU is divided into two departments – NCAA Division 1 and Student Life Sports. The NCAA Athletics Department has 27 sports, with 24 competing at the NCAA Division II level and three competing for NCAA National Collegiate Championships, which includes mostly NCAA Division I programs. LU officially became an NCAA member in 2013 and has already experienced success including 12 conference championships and nine top-10 national finishes over the last three school years. The University has had a full-time Athletic Director since 1976. A review of the LU's 2016 fall website for information on the mission and philosophy of the Athletics Department, as well as guidelines for the principles and practices of coaching student-athletes, reveal the following:

Athletics Philosophy - Lindenwood University is committed to the development of the whole person within a value system that acknowledges our Christian heritage and focuses on a four-dimensional personal growth: mental, social, physical and spiritual. The actions of the student-athlete affect both himself/herself and others. In choosing to be a part of the LU learning community, the student-athlete agrees to be responsible and to choose his/her actions in such a way that they reflect favorably on the student-athlete and the Lindenwood community. Athletics Department Mission Statement: It is the mission of intercollegiate sports at Lindenwood University to advance learning, enliven campus life, develop leadership skills, and foster the personal growth of the student athlete through offering a high quality athletics program. Athletic

department personnel strive to provide model programs that develop meaningful standards of scholarship, athletic performance, leadership, community service, and sportsmanship. Through sports, Lindenwood seeks to contribute to a sense of collegiate identity and positive perception in the community. The Athletics Department shall strive for excellence in the competitive environment in accord with the philosophy, rules, and regulations of the NCAA and other sports governing bodies in which Lindenwood has membership. The website also lists the Men's Swimming and Diving team as NCAA Conference Champions in 2014 and 2015. (LU, 2015, para. 6).

In a qualitative study, the decision regarding the number of participants should largely be a reflection of the study's purpose. The general consensus of literature suggested that 10-12 participants may prove sufficient in qualitative inquiries involving the understanding of experiences and perceptions of participants (Guidelines for Conducting a Focus Group, 2005, p. 5). Once the Swimming and Diving Teams were selected as the case study for this research, given the convenience of accessing all the participants and the relatively manageable size of between 50-60 student-athletes, the study was designed for 100% participation. However, because participation was voluntary (athletes must give their consent to be surveyed), and because student-athletes less than 18 years of age cannot be surveyed without parental consent (and therefore were not included in the study), participation was estimated based on one coach and 57 student-athletes. The coach was the most important single participant of this study.

Research Procedure and Timeline

Early in the semester of spring 2016, the PI met with Lindenwood University's Athletic Director and explained the purpose, rationale, and nature of his proposed research. The PI obtained the necessary written approval for the study (Appendix A). Given that a new Athletic Director (AD) was to assume duties at the start of fall 2016, the outgoing Athletic Director also provided an introductory note advising the new AD of the agreed-upon approval (Appendix B). The PI discussed with the AD that he was proposing a case study of one of the LU's sports teams. He explained that for this pioneering study of the link between Andragogy and sports coaching, the need was for a sport that focused more on individual rather than team performance. The AD felt that the research would be best served by using either the Swimming and Diving Team or the Wrestling Team. Both programs were very successful programs regionally and nationally. Also, both programs' coaches were themselves former high-achieving college student-athletes who also had experienced competition in higher settings. The AD opined that they may have been more exposed a variety of coaching styles. After consideration of the larger size of the Swimming/Diving Program, and the more flexible schedule for interviews, observations etc., the Swimming/Diving Program was conveniently selected for the case study. The PI met with the coach of the Swimming/Diving team and outlined the purpose and nature of the intended research. He agreed to provide all the needed assistance to the study. Appendix C shows this approval letter. The Research Prospectus was prepared, approval was received from the Lindenwood University Institutional Review Board, and finally, from the Office of the Academic Provost by the end of the summer, 2016.

At the beginning of the fall 2016 semester, Swimming/Diving Coach Owen signed the Consent to Participate Form (Appendix D), and dates were arranged for four, one-hour interview sessions, and for six, one-hour observations of training/practices. The interviews between the PI and the coach were conducted in September. The Interview Script is attached (Appendix E). The coach was also asked to complete a two-part survey (Appendix F). Part A of the survey is a customized version of John Henschke's Modified Instructional Perspectives Inventory (MIPI) with its scoring rubric. Part B of the instrument is a table created by the PI to assess the needs assessment of the adult student-athlete learners. Henschke's permission letter for the use of the MIPI is attached (Appendix G). During the first week of October, Coach Owen arranged for the PI to meet with the team for 10 minutes at the start of practice to explain the nature and purpose of the study and to request their confidential, and as much as possible - anonymous, participation in the study. Students were given a Consent for Participation in Research Activities Form (Appendix H) to request their participation in the established on-line survey, jotform.com instrument (JFI). This consent form clearly advised that, (i) student-athletes under the age of 18 were prohibited from participation; (ii) participating student-athletes will be treated with respect; (iii) their participation is totally voluntary; (iv) any participant has the option to withdraw from the survey at any time; (v) any participant has the right to refuse to answer any questions s/he wishes and; (vi) all information will be treated as private and confidential. Student-athletes were asked to voluntarily participate, or decline, with no negative consequences to anyone declining. The coach did not know which student-athletes agreed to participate and which declined, as all student-athletes returned their signed form in a sealed envelope. The student-athletes who agreed to

participate were also asked for their email addresses to which the survey was to be sent during the first week of November. Student-athletes were told that in some cases, in studies with a small sample size, there may be risk of identification. The survey instrument can be found in Appendix I.

In mid-November, the Coach arranged for the PI to again meet with the team for approximately five minutes at the start of practice. The PI thanked the student-athletes for their contributions in the survey-questionnaire and requested the participation of junior and senior student-athletes for a focus group session. Another Informed Consent Participation Form (Appendix J) was distributed to all junior and senior student-athletes who were asked to voluntarily participate in the focus group with no negative consequences to anyone declining. Students returned the completed forms and intentions in a sealed envelope to the researcher. The aim was to randomly select eight junior and senior student-athletes (the rationale for the junior and senior participants is that they would have had more experience with the Coach). To compensate for no-shows and late withdrawals, 12 junior and senior student-athletes were invited to participate in the exercise. If more than 12 student-athletes volunteered, the researcher (PI) would use a random sample method to select the final 12. The PI called each one to confirm interest and availability, and gave the participants the location, date and time of the Focus Group. A Confirmation Letter (Appendix K) was emailed to each volunteer, and a reminder phone call was made two days prior to the meeting. The focus group interview took place in the prearranged private meeting room on the Lindenwood University campus. This meeting lasted two hours. The entire session was audio recorded, transcribed, and coded

for analysis. The PI also completed the National Institute of Health's certification for conducting human-subject research. Details of this certificate are attached (Appendix L).

Methods

Pilot study. To develop and better validate the instruments, the PI first vetted the soundness of all of the data collection and scoring instruments with his committee members and former college student-athletes. These instruments included Henschke's MIPI and the PI's created needs assessments of adult student-athlete learners, both based on Knowles' six assumptions/principles of Andragogy. Given the experience and qualifications of the committee, the PI gained substantial insight and adjusted wording and sequencing of questions and statements accordingly. As part of the piloting process, the student-athlete's survey was also given to a male and female, former competitive, college-level, student-athletes. Their comments were used to sharpen the precision of the survey instructions and questions. These participants were not a part this study, although they both were former Lindenwood University student-athletes themselves. A pilot run of the coach's interview script was also conducted using an experienced college coach who is also not a part of this study. These pilot studies helped to ensure a more stable alignment of the questions for the coach and the student-athletes to the stated research questions.

1. Interview – Coach. The interview method was adopted as one of the pillars of this study's methodology because of the study's exploratory nature. This method provides the opportunity to gain an understanding of Coach Owen's past coaching experiences and allowed him to express his ideas, motivations, and reasons for coaching. In the four, one-hour interviews, data collection relied on unstructured as well as semi-

structured techniques. The interviews were set one week apart. The first session was very informal, where the goal was building rapport between interviewer and interviewee.

Spradley (1980) suggested that “interviewing involves two distinct but complementary processes: developing rapport and eliciting information” (p. 44). He cited that the interview process goes through four stages:

- (1) Apprehension – anxiety is always going to be a part of a, one-on-one getting-to-know-you experience and this tends to impact both the interviewer and the interviewee. This of course is so unless both parties are either super experienced, they know each other or, belong to the same profession or career;
- (2) Exploration – as rapport begins to be established, both parties become more at ease with each other and both are listening, observing, and testing. In this stage, the interviewer understands that it is imperative to “make repeated explanations.” The researcher then must understand the power of restating what the informant says which serves to reinforce what has been said by way of explanation and also must demonstrate interest. The researcher fully understand too that, s/he should never ask for meaning but, for use;
- (3) Cooperation – it is in this element that both parties begin to develop mutual trust; and
- (4) Participation – with Exploration and Cooperation now behind both stakeholders, it is at this appoint that the interviewee/informant begins to perceive his/her role as teacher to the interviewer/teacher. It is here, at that stage, Spradley projected that “complete participation is achieved” (p. 44).

However, Hyman, Cobb, Fledman, Hart, and Stember (1954) contested that overdoing rapport might lead to certain degrees of distortion of the informant's initial interview and communication. It is clear that overly persisting on the four-point approach as presented by Spradley, an interviewee can be kneaded into reconstructing one's initial account of a matter; in other words, the interviewee can be corralled into a cognitive dissonant corner leading the informant/interviewee to reconfigure what was initially stated in the initial interview – there is little doubt that such measures as presented by Spradley, as tactically functional as they might be, can ultimately lead to some degree of discordancy with the original declarations or, “truth.” In this first interview, the questions elicited responses about Coach Owen's background as a competitive swimmer using questions one to six of the interview script.

The second interview focused on Coach Owen's coaching background and information using the prompts of questions seven to 16 of the interview script. The questions required him to recount his early days of coaching and his highest levels of coaching, but they also solicited responses as to the major differences he saw in coaching younger athletes versus coaching adults, and coaching competitive athletes versus coaching recreational athletes. At this stage the rapport was intended to be very professional and non-confrontational, but to encourage interest in an in-depth analysis of his coaching beliefs and style, and to trigger critical reflection. The third interview moved on to questions regarding aspects of coaching adults in the co-ed environment of a college program (questions 17 to 21). As well as the all-important questions related to coaching styles (questions 22 to 29), with reference to best practices and worst practices of the best and worst coaches he ever had. However, the rubber met the road in the fourth

and final interview where Coach Owen was asked to describe himself as a coach. The goal was to get a contemplative but factual recount of his coaching philosophy with his most used practices.

Other than coding for big themes, responses to all interview questions were cross-checked with responses on the Coach's MIPI, and the responses that the student-athletes report on the MIPI section of their survey. The interview protocol was developed to result in a consistent process of data collection across all the four sessions. The primary research questions were never directly asked, but the prompts for the second, third, and fourth interviews became progressively more structured as they channeled Coach Owen to discuss his philosophy of coaching, his views on the principles and practices of Andragogy, and his assessment as to the potential effectiveness of these methods in his coaching of his present team. Throughout the four interview sessions, Coach Owen was treated with utmost respect and it was clearly explained that his participation was voluntary, and that he had the option to refuse to answer any particular question. The only disadvantage of this method of one-on-one interviewing, as also noted by Morris-Eyton (2008) in her study, was that Coach Owen and the PI sometimes "veered off track and talked about issues that were not immediately relevant to the question asked" (p. 34). All four interview sessions were audio recorded. The Interview Script can be found in Appendix E.

2. Questionnaire and survey – Coach. To give quantitative support to the results of the interview, Coach Owen was asked to complete a two-part survey instrument, the MIPI, an instrument originally created by John Henschke was used. Part A contained a 45-question inventory of his beliefs, feelings and behaviors as a coach and Part B, a

needs assessment survey instrument, was a table created by the PI as a quantitative tool based on Malcolm Knowles' six assumptions about the adult learner. The PI intended for Coach Owen to assess himself on what he saw that he would have liked to have ideally delivered versus what he thought he actually delivered in his coaching during the season as they pertained to the needs of the student-athletes. The instrument used a Likert scale from 1 to 5, with 5 being greatest. This instrument was vetted by both the dissertation committee and to ex-collegiate student-athletes. Jones-Clinton (2011) stated,

The Instructional Perspectives Inventory (IPI) was designed by Henschke (1989) to be a self-reporting assessment instrument revealing philosophical beliefs as well as personal and contextual identification, actions and competencies for guiding conduct in adult education. The IPI was “developed and used in the staff development program with 410 instructors in Adult Basic Education (ABE), General Educational Development (GED), and English as a Second Language (ESL)” (Henschke, 1994, p. 75). It is currently used most often to provide a measure of seven factors identified as beliefs, feelings, and behaviors of adult educators. This inventory originally consisted of 45 questions with responses arranged on a four-point Likert scale. In determining construct validity for the instrument, Stanton (2005) modified the scale of responses to a five-point Likert scale with values ranging from *almost never* = 1 point to *almost always* = 5 points. (p. 51)

The MIPI, or Modified Instructional Perspectives Inventory, has become a key instrument for persons studying adult education, including in sports educational settings. As of 2011, there have been “eight studies using the IPI in educational literature” (Jones-

Clinton, 2011, p. 51) and to date, the instrument has been used in 20 additional dissertations, with this study moving the tally to 21. The IPI has been used by various educator types as it was seen as very applicable to various disciplines and studies. Jones-Clinton (2011) cited the following uses of the IPI:

Thomas (1995) and Seward (1997) both used the IPI for dissertation research with groups of parent educators; Dawson (1997) and Drinkard (2003) used it with groups of nurse educators; Stanton (2005) investigated construct validity for the IPI (First to modify instrument, thus, MIPI); Stricker (2006) with school teachers and principals; and McManus (2007) used the IPI with full-time mathematics faculty at the community college. (pp. 51-52)

Risley (2012) also mentioned other that had since used the instrument, and included, Reinsch (2007) who used the IPI regarding the relationship among lifelong learning, emotional intelligence, and life satisfaction for adults 55 years and older; Rowbitham (2007) for teacher perspective and the psychological climate of the classroom in a traditional BSN program; Ryan (2009) used in adult learning satisfaction and instructional perspective in the foreign language classroom; Manjounes (2010) used in adult accelerated degree program; Student and instructor perspectives and factors that affect retention; Vatcharasirisook (2011) used in organizational learning and employee retention: a focused study examining the role of relationships between supervisors and subordinates; Jones-Clinton (2001) principals and facilitators of professional development with teachers and adult learners; and Moehl (2011) in exploring the relationship between Myers-Briggs Type and Instructional Perspectives among college

faculty across academic disciplines. (pp. 63-64)

Jones-Clinton further cited that:

Construct validity for the IPI was tested by Stanton (2005). The overall Cronbach's alpha was .87. The IPI and six IPI factors (teacher empathy with learners; teacher trust of learners; planning and delivery of instruction; accommodating learner uniqueness; teacher insensitivity toward learners; and learner-centered learning) were correlated with Guglielmino's (1977) Self-directed Learning Readiness Scale (SDLRS). "Three IPI factors, planning and delivery of instruction; teacher insensitivity toward learners; and teacher-centered learning processes, explained 19.4% of the variance for self-directed learning readiness" (p. i). Stanton found five "reported andragogical IPI factors had a significant relationship with each other: teacher empathy with learners; teacher trust of learners; planning and delivery of instruction; accommodating learner uniqueness; and learner-centered learning processes" (p. i). Stanton developed andragogical principles category levels for the IPI based upon an overall IPI score. IPI score, in a range from less than 123 to 225, indicated a specific category level on a five point scale. Revised versions of the IPI for principals and teachers were developed to reflect the research questions. (pp. 52-53)

The MIPI added significantly to this study as it provided a quantitative measure against which the opinions and values expressed by Coach Owen in the interviews and those noted in the poolside observances of practice sessions, can be compared.

3. Non-participant poolside observation. This research method included six one-hour long non-participant poolside observations of swimming/diving practice sessions. The designated practice sessions were all poolside, and the Coach's instructions, other communications, and behaviors were noted in a logbook and later coded and analyzed. The notes were then coded. The PI also took notes on instructional techniques, moods, behaviors and athlete's reactions. In order to reduce the disruptions or distortions for both the coach and the athletes, caused by an outsider observing the practices, the PI's role was non-intrusive. Similar to the Morris-Eyton (2008) study sighted earlier, she quoted Creswell (2003) by stating that "I did not participate in any aspect of the training sessions and was a non-participant observer" (p. 32). Pool observations one, two, and three in this study were aimed at getting an understanding of the relationship between the coach and his student-athletes. However, for observations four, five, and six, a template was developed using the six assumptions and methods of Andragogy, and this template was used to ensure that the information gathered was consistent from one observation to the next, provided some depth of examples, and was directly related to the research questions. The greatest advantage of this method of observation was that information is captured in real time, without the distortions of memory and/or perceptions.

4. Questionnaire and survey – Student-athletes. The survey instrument used to collect data from the student-athletes is a four-part data collection instrument. The survey was converted to an electronic version using the popular on-line survey instrument jotform.com (JFI). Several of the question responses utilized a simple drop-down menu.

Part A questionnaire and survey asked nine, close-ended demographic and personal identification questions such as gender, age, and academic standing, which was

used to facilitate correlations between the open-ended responses to Part B, as well as the scores generated from the quantitative Parts C (a PI instituted customized version of the MIPI, or, CMIPI), and Part D, a PI created Needs Assessment survey instrument. Under the general information requested in Part A, student-athletes were also asked to give some background on their swimming/diving experiences before attending Lindenwood University, and on the particular swimming/diving event in which they participated. The last question of this section, “the number of semesters under Coach Owen” was essential in assessing the comments and scores of the rest of the questionnaire.

Part B of the survey instrument asked 18 open-ended questions where each student-athlete was required to think of his/her current season and speak about personal goals, assistance from the coach, learning from the practices, and their evaluations of Coach Owen in several areas of effectiveness.

Part C of the survey instrument used to collect data from the student-athletes was the same Customized Modified Instructional Perspectives Inventory (CMIPI) completed by Coach Owen and discussed in method two but tailored to suit the student-athletes. Because Andragogy values respect and trust reciprocity between facilitator and learner as a key to the entire process, the MIPI was included in this study to be completed by both the coach and the student-athletes where the coach assessed his perceptions of his performances and the student-athletes (SAs), in turn, provided their perceptions of the coach’s performances. For each of the following seven main factors in Table 3, derived from Henschke’s (1989) IPI and later, MIPI (2006), the results from Coach Owen were compared to the average scores given by his student-athletes (SAs). Table 3 represents those seven factors of beliefs, feelings, and behaviors.

Table 3

Seven IPI Factors (Henschke 1989) – Beliefs, Feelings, and Behaviors

-
1. Coach's empathy with athletes
 2. Coach's trust of athletes
 3. Planning and delivery instruction
 4. Accommodating athletes' uniqueness
 5. Coach's insensitivity toward athletes
 6. Athlete-centered learning process
 7. Coach-centered learning process
-

Part D of the survey instrument was the table created by the PI as a quantitative tool based on Malcolm Knowles' six assumptions about the six needs of the adult learner. It is the identical table that appeared on Part B of the survey instrument which Coach Owen completed. The table was worded so that the student-athletes could assess the six needs on what they thought was ideal versus what they thought they actually received. The instrument used a Likert scale from 1 to 5, with 5 being greatest. This instrument was vetted by both the dissertation committee and two ex-collegiate student-athletes. Triangulation, by cross tabulation of data, helped give validity to the findings. The PI's main aim in this Part D of the questionnaire was to have the student-athletes give a sincere assessment of their season of learning by answering these six questions (which were closely related to the 45 questions on the MIPI) and by assisting them to confirm their perceptions of the coaching they received during the season. As shown in Table 4, the table captures the main needs of adult learners as discussed by Malcolm Knowles. He believed that all adult learners have a strong need to self-direct and be given freedom and involvement in their learning. He believed that adult learners needed to draw on their past

feelings, education, experiences, concepts, and associations (FEECA), and to connect all new learning to the practical, real life problems they faced.

Table 4

Needs of Adult Student-Athletes Learners (SA)

1. Empowered to be more self-directed in the learning of new things
 2. Given freedom to draw on past feelings, experience, education, concepts, and associations
 3. Encouraged to draw on real life situations as a means to learning more readily
 4. Given greater freedom to explore individual or group-centered problem solving practices
 5. Given more intrinsic motivation/incentives that encourage greater drive to overcome and accomplish
 - 6.1 Greater involvement in the instruction
 - 6.2 Greater involvement in the assessments and evaluations
-

5. Focus Group – Student-athletes. A focus group was included in the research methodology to add rigor and verification to the findings reached from the observations of practice sessions, and the student-athletes responses to Parts B, C, and D of the questionnaire (JFI). Focus groups tend to create a relaxed, more regular social atmosphere where participants feel engaged and comfortable to add detail. Citing the 2006 work by McMillan and Schumacher, and by Morris-Eyton (2008) in her study, reported that focus group discussions “increase the quality and richness of data through a more efficient strategy than one-on-one interviewing” (p. 34). In this study, the focus group session encouraged each athlete to discuss his/her learning, and development as a swimmer or diver during the season, with emphasis on the roles played by various coaching techniques, tactics, and strategies. The participating student-athletes were encouraged to explore how they felt about their level of performance and which factors impeded or enhanced their progress. The focus group session also included a check for understanding, an opportunity to add anything not previously discussed, and an

appreciative closing statement. One of the major drawbacks of the focus group was that the athletes may have been afraid to be openly critical of their coach in the presence of other team-mates. To minimize this, care was taken to comfort and ensure participants that everything said was strictly confidential and anonymous. Also, because a number of the participants were younger in age and classification, and were also less accomplished, they were encouraged that this was the appropriate forum to blossom in their self-expression and to reduce and remove any fear in sharing their truthful overtures and showing their sincerest feelings.

Processing and Analysis

In processing and analyzing all the information collected from the five distinct methods employed in this study, several analytic strategies were employed. All four interviews with the coach were audio recorded, transcribed, given to the coach for verification, and then appropriately coded. The focus group with the student-athletes was audio recorded and also coded. Notes from the six poolside practice sessions were also coded. Coding is a process for both categorizing qualitative data and for describing the implications and details of various categories. Initially, open coding was used in this study in considering the data in minute detail, and after some initial categories were selected, a more selective coding to the core concepts of Andragogy was utilized. This study also actively utilized “memoing,” particularly through the observation of the teams’ practices, to recording the thoughts and ideas of the PI as they evolved throughout the poolside observations. Extensive marginal notes and comments were recorded on the observation sheets. All qualitative information were processed utilizing integrative concept maps as there were a wealth of details when all the sources were accumulated,

and the maps helped to make sense of the ideas and increase oversight of the themes and sub-themes. In discussing her process of data analysis, Morris-Eyton (2008) quoted Henning et al. (2004) as stating:

In order to make sense of the enquiry, we elicit meaning from the data in a systematic, comprehensive and rigorous manner. Thus, the ongoing process of analyzing data requires rigorous attention in terms of coding, classifying, interpreting, and managing the data collected. (p. 36)

Isenberg (2007) in discussing her process of data analysis, stated that she used an “inductive process which allowed for categories and patterns to emerge from the data... (and) to get a sense of the whole, the topics were classified into categories by looking for relationships that connected statements and events” (p. 61). In essence, inductive tends to go from big to small, making broad generalizations from specifics observed or studied; the reverse of deductive.

The processing of the quantitative information gained from the MIPI completed by the coach, the MIPIs completed by the student-athletes, and the responses to Part D of the survey instrument (JFI) completed by the student-athletes used Excel spreadsheets for summarizing and calculating score ranges and score averages. The scoring process for the MIPI has a specific rubric. It takes the A-E scores from the numbers of the 45 questions, uses a numerical conversion for A-E (1-5 and in some cases, 5-1), and places that value alongside the respective statement number. There are certain questions that have ‘reverse values’ (3, 5, 11, 13, 18, 20, 25, 27, 32, 34, 36, and 41, and are scored as follows A = 5; B = 4; C = 3; D = 2; and, E = 1). The scoring rubric is illustrated in Appendix F. Again,

the survey was distributed to the student-athletes using the “jotform” free online survey software.

Internal and External Validity

Maxwell (2013) stated that, “although methods and procedures do not guarantee validity, they are essential to the process of ruling out validity threats and increasing the credibility of your conclusions” (p. 125). Maxwell’s voicing of the importance of validity is one of any qualified researcher, and all understand that with it, there would be an ease of mind to rely on and apply the stated conclusions. Validity and with it, reliability are crucial to the acceptance and future application of this study.

Regardless of whether a self-designed or validated instrument is used to collect data, or whether it is a qualitative or quantitative study, validation is a must consideration. In this study, every effort was made to clarify researcher bias. A conscious effort was made not to allow the PI’s personal bias to influence the data collection, analysis, or interpretation. Also, the study continuously included the triangulation of the methods to gain different perspectives of the results, and there was also continuous cross-checking of facts, and even of expressed beliefs and attitudes and further, checks for the reliability of the information given. The study’s validity was further verified since the data collection and analysis directly aligns with the theoretical framework outlined in Chapter Two. Further, this study attempted to include all the ethical considerations of human subject research.

Research Limitations and Advocates of Case Studies

From all searches, trying to define the term “case study” can be nothing short of “a definitional morass” (Gerring, 2006, p. 17). It is clear that the term, case study,

“touches” many different things and “reaches” many different places, but has been unable to land on “soft” feet. That said, the truth is, just as there are strengths and limitations to every research method, there are too, for case studies. In particular, case studies do tend to limit the boundaries as they may relate to events, operatives/processes, and time. These boundary tendencies makes one more inclined to understand that, a, “fixed period needs to be set in order to give the case study a beginning and an end” (Morris-Eyton, 2008, p. 29). This disclosure by Morris-Eyton did show itself somewhat in this study. Other anti, case study personnel profess and argue that the limitations are real and also, can be many. According to Hodkinson and Hodkinson, (2001) case studies can have a tendency to, produce, data for easy analysis; be too expensive if large scale, be too complex; lend themselves to numerical representation; not be generalizable; raise doubts about objectivity; be easily dismissed by its “enemies”; and avoid a large number of research questions (pp. 7-9). In this case study, the PI did not sense any difficulty with these claims and had done everything possible and with the astute help and guidance of committee members and reading and writing specialists, to avoid any conviction of subjectivity.

Although the general consensus is that limitations of the case study do tend to include insufficient, one-dimensional data to help provide a clearer and more wide and deep picture (Morris-Eyton, 2008, p. 29), they do provide a platform for encouraging and launching future studies. Further, they provide real, readily available, and close-to-the-heart-and-soul accounts of the “thing” under investigation. Hodkinson and Hodkinson (2001) spelt out several pros of case studies, namely, they “help people understand complex inter-relationships; tend to be grounded in lived reality; facilitate unlimited

exploration; show the processes involved in causal relationships; and, facilitate rich conceptual/theoretical development” (pp. 1-2).

Summary

This chapter outlines the complete methodology employed for this research on the use of Andragogy by a coach. Each of the methods is described and its strengths and limitations as related to this study were discussed. Using a case study approach, information gathering relies more heavily on closed-ended and open-ended interview questions and surveys, as well as observations and focus groups. This study combines qualitative as well as quantitative instruments. The major quantitative instrument is The Modified Instructional Perspectives Inventory (MIPI), which measures the philosophical beliefs as well as personal and contextual identification, actions and competencies for guiding conduct in adult education. The MIPI was customized for the assessment of the same in a sports coaching situation. This chapter also outlines the procedure and timeline, as well as the processing and analysis utilized in this study.

Chapter Four: Research Findings

Introduction

As outlined in Chapter Three, this study employed five main data gathering methods – two from the coach’s perspective (Interview and Survey); one from the objective perspective of interviewer poolside observation; and two from the student-athletes’ (SAs) perspectives (Survey-Questionnaire and Focus Group). The results provided a rich, inter-woven, descriptive, as well as quantitative picture of Coach Owen’s teaching philosophy, his beliefs about his SAs, and his coaching methods and practices. In the spirit of Andragogy, the college level athlete was seen as an adult whose learning is facilitated by a coach who guides, but allows self-direction and freedom in order to assist that athlete to reach his/her fullest potential and build on it. The findings of each method were therefore related to the principles and practices of this andragogical spirit. This chapter is organized to sequentially relay the findings of each of the methods in the order in which the information was collected. As the findings of each method were compounded, comparisons, contradictions, and the repeated and reinforced themes of the information, are highlighted. Particularly from the one-on-one interview with Coach Owen, the pull between what he would like to do and what he practically can do was evident. This “conflict,” related to the size of the team, the diversity of personal goals amongst his SAs, and innumerable other practical issues, recurred in the findings of in several of the reported information gathering methods.

Major Findings from Interview with Coach Owen

The interviews with Coach Owen gave great insight into the man, his beliefs as a coach, and his constant desire to improve his coaching style and methods. Table 5 illustrates some of the major themes and sub-themes that emanated from the interviews.

Table 5

Major Themes and Sub-Themes from Coach Interviews

Major Themes	Sub-Themes
1. Coaching practices are strongly influenced by his personal experiences as an athlete.	His father and his other coaches. Personal bests. Team leadership. Struggles.
2. Coaching practices are strongly influenced by his past experience of coaching elite, competitive adults.	
3. He sees major differences between coaching the pre-adult and the adult athlete.	Skepticism grows as an athlete gets older. They just ask more in depth questions about why they should do something. As people get older, whether it is anatomical issues or mental hurdles that they have, they tend to develop a laundry list of excuses. Children like me easier. They seem to think it's cool to getting them into what I am wanting them to do and they seem to bring a really great enthusiasm to it. They also have a limited knowledge – you can only get so complex in your coaching. Adults have to deal with many more issues than children.

continued

Table 5. Continued.

4. Some of the biggest joys of coaching. 5. Coaching philosophy	Coaching adults, you reach saturation point quicker. We deal a lot with fear more with our college or competitive athletes. Seeing the athletes succeed. He wants to practice seizing every opportunity as a learning opportunity, but there are practical concerns. Freedom in training. Meeting needs. Practical limitations. Bringing new ideas. Style changes with each swimmer, each group, each season. I don't want to be so powerful in my delivery of the information that the athlete can't listen to me because they're intimidated.
6. The role of knowledge.	
7. Coaching style.	
8. Importance of trust in the coach - athlete relationship.	It means everything.
9. Use of professional support in coaching.	
10. Use of Learning Contracts.	

Coach Owen attested to the fact that his coaching practices are strongly influenced by his personal experiences as an athlete from his early school years playing all different sports, through to his college years when he specialized in swimming. He stated that his father was his coach for most of his early sports and that his 'father knew more than most coaches about most sports because he was a successful athlete in many sports.'

While an athlete, Coach Owen admitted that there were instances 'where, I guess, the roles were blurred a little bit as a coach and a parent and, sometimes there were

moments that the delivery of the information was where I was more fearful than I was open to learning.’ However, he cited that he learned a great deal from his dad. There were several other earlier coaches whom he considered very good coaches, and any bad experiences he recalled were,

more of the nature of passive bad experiences where coaches missed opportunities. I didn’t know that I was having a bad experience, it was just a missed opportunity to learn so. I had a couple of instances that just didn’t connect with where I was, what I needed in the sport at that time.

Coach Owen stated that he mostly had ‘coach-directed coaches,’ and that his collegiate coach was ‘amazing for me, but as I’ve looked back now that I’ve coached multiple people, I think, how can I use what was effective with me, with other people and different types of people.’ He strongly believed that he needs ‘to know how to coach someone who’s nothing like me.’ He stated,

I’m trying to find a compromise of what I wanted as an athlete and what I feel as a coach now. Maybe some of that is educating the athlete, and some of that is doing something different than the coach did; so that’s certainly an active process for me to want to be seen the way I wanted to see my coach but, also respond to the things I’m experiencing as a coach.

Influences that he brought to bear on his current coaching philosophy and methods included not only his experiences with his coaches, but also his personal performance bests as a swimmer and the dynamics of the teams on which he participated. He stated that as a college athlete he ‘would have liked to peak a little higher a few times but, I never had glaring negative performances or failures.’ He remembered that when he

‘won an individual national championship in my freshman season, and I did that again as a master’s swimmer - I exceeded what I thought I was capable of - it was a most profound time for me.’ However, the team, and in particular his leadership on the team, made a significant impact on his outlook as an athlete. Coach Owen stated that ‘the bigger goal for me, because it involved leadership by me, was not just performance on my part, but performance of the overall team.’ Part of the recounting of the influences of his personal experiences as an athlete on his present coaching also included a discussion of some of the struggles he went through ‘in middle school and high school I wasn’t physically at the level where I needed to be to perform well, so it was just a struggle to train.’ Remembering this helps him empathize with some of his athletes. Coach Owen further recognized that his coaching philosophy and practices are also influenced by his past experiences of coaching elite, competitive adults. He stated that at the ‘Parkway Swimming Club, probably 80% of the kids within that training group were on track to compete in college – so you know, it is a very high level.’ He also coached ‘internationally as an assistant coach for the Philippine national team at the South East Asian Games in 2011, which is, next to the Olympics, the largest competition for the countries participating.’ These experiences gave him exposure to the mind-set of elite athletes driven to high levels of training to achieve top performance. Coach Owen stated that he remembers vividly, the styles and techniques the head coaches employed in these settings, and they were strong-handed and high-expecting.

One of the important issues of applying Andragogy to sports was to ascertain if there are major differences between coaching children versus coaching adults. Based on his experiences, Coach Owen stated that ‘he sees major differences between coaching the

pre-adult and the adult athlete.’ He believed that ‘skepticism grows as an athlete gets older,’ and that adult athletes ‘ask more in-depth questions about why they should do something.’ He stated that ‘the younger the swimmer the less the resistance you get, because they normally accept what you have said at face value.’ Coach Owen also believed that ‘as people get older, whether it is anatomical issues or mental hurdles that they have, they tend to develop a laundry list of excuses.’ With regard to the coach-athlete relationship, he thought that ‘children like me easier. They seem to think it’s cool for me to get them into what I am wanting them to do, and they seem to bring a really great enthusiasm to it.’ Coach Owen acknowledged that in coaching the child, because they ‘have a limited knowledge, you can keep it simple and direct. However, in coaching adults, it becomes very complex.’ He stated that,

adults have to deal with many more issues than children. When you get to college all the external factors come into play, like taking responsibility for finances, and thinking about their future, so it’s hard to keep the coaching as simple as the sport.

He recounted the example of one of his swimmers who ‘has a roommate that’s up late playing video games’ every night, so much so that it is telling on the young man’s ability to practice effectively. Coach Owen also believed that ‘adults reach saturation point much quicker,’ and adults ‘deal a lot more with fear.’ When he was asked to clarify what was meant by, ‘fear,’ he suggested ‘it was a fear of failing at the competitive level.’

So much of the ideology and the methodology of Andragogy hangs on what the facilitator, whether classroom teacher or sport coach, sees as his/her goal or end product. Coach Owen was very aware of his product. In discussing his goals for his SAs, at no

time did he mention winning a national championship, or beating some specific event time. He simply stated ‘the biggest joy of coaching for him was seeing the athletes succeed.’ He believed that,

there is a special thing that athletes need to experience – when you really surprise yourself and you do far better than you ever expected. That’s really my goal with all of them - to surprise them with themselves and, build a true confidence. I did something more than I thought I could do. That’s the only process that I want for them in this environment before they go out to life - that by having some faith and trust, and doing things a little that I’m unsure of, and challenging myself and going through hard times with a little faith and trust and believing somewhat in my teammates and myself, I can reach a higher bar than I ever thought I could.

These goals were reflected in Coach Owen’s coaching philosophy. He stated that he ‘wants to practice seizing every opportunity as a learning opportunity.’ He talked about the fact that this,

is easy for me to do with some athletes, and it’s more difficult with other athletes because with some athletes there’s no pushback if I do that and with other athletes there’s a large pushback, and I can’t have a fight in the middle of a team practice.

However, he recognized that this is his ‘chance to mentor them, and coach them, and it is okay to push them and maybe have them do something they wouldn’t otherwise do - because if not, the window is missed!’ He thought that,

the problem with athletes, is maintaining that buzz, maintaining that heightened excitement that they get with the team and the activity and the endorphins and

everything that goes with athletics. We kind of have to bottle the lightening, hide it in a bottle now, and send them away with that bottle. Coaching is an art.

One of the pillars of Andragogy is a call for greater freedom in the learning process. This is particularly challenging in the classroom where there are mandated learning standards and pre-requisite knowledge before moving on to the next course level, but in a sporting environment, where the focus is on competitive performance and winning medals, this can be even more challenging. In response to questions related to the extent of freedom he allows his athletes, to learn on their own, Coach Owen rated himself as giving ‘a moderate amount of freedom.’ He stated that,

because we have each athlete having a different specialty, once we come to a decision of what we are going to prepare you for, they don’t always fit into a box, we make a practice designed for them that might be customized. They might do some sessions with this group, and some sessions with another group. That’s how it unfolds on our team - here are the specialties that you have agreed you’re going to work on, and you are going to do this session with this group and this session with that group.

Coach Owen added, that because of the nature of the sport, there

are a lot of elective choices that they make about how they are going to execute a race. Sometimes they’ll think that they’re faster by maintaining the same old problems because they’re comfortable that way and they’ll think miraculously they’ll just get faster. But they choose how long to be under water, how much to kick under water, when to breathe.

Expanding on freedom in practice sessions, Coach Owen recounted his session of the previous day as an example. He stated,

I had the boys and the girls divided in the session and they were flip-flopping, so I had the girls for 8 minutes, then the men for 8 minutes, and they were trading out. For the girls – it had very little to do with conveying the exercise that I needed them to do; and more to do with keeping the mood and the right level of fun, and keeping them engaged. But for the men, it was all about, hit me with a hammer. Just tell me exactly what to do, I want to do it now. And it is really driven by the leadership in the group. There are girls that want to do that, and would respond to that, but not the entire group.

With regard to allowing freedom for the athletes to choose how and what they practice, Coach Owen discussed several practical limitations.

It is hard to completely freelance because we don't own the pool, and we don't get the time to be in there separately. Our team is subdivided into three specialty groups. They train at separate times. I'm involved with twice as many athletes, because normally a team would run an entire practice at one time and will not have the divisions with the team. If it did, I would only coach one section, but now I'm coaching two sections and even more. Within my sport, you'd have a professional athlete that has a personal coach that designs everything specifically for that person. We don't get that specialized, but we do really work to do some of that because that enhances their trust that, we are specifically trying to cater to what they need and want.

Coach Owen stated that he is always encouraging his swimmers to research and bring new ideas. He has given them ‘complete freedom to do that.’ He stated that he fully recognized that,

they all come from a compilation of different coaches, and sometimes they’ve been told opposing things to what we would tell them to do. We have to listen to what they think, and determine if we think that’s a battle we should fight. The most common thing we do is to encourage them to watch videos and read articles by other coaches and other people in the swimming world... I say, hey, you’ve this anatomical limitation with your technique and you have this limitation with this, here are some people that do it the way I want you to. Some of them are geeks about the sport, in a good way, and they go ahead and they come with questions and say hey, this person does this, what about me, you said I need to do this. Yes, we have a discussion about what we agree on they should do.

Sometimes I change my opinion about what they should do.

A Learning Contract is an aid used particularly in Andragogy that specifically fosters freedom in learning. Coach Owen was asked about this tool and whether or not he had ever used it. He replied,

It sounds like an effective tool and I would like to better understand its workings now that I have learned of it. I do not use it now, formally, but I think it’s something I’d like to do to have more of an impact with what we are doing. He went on to tell that he does a goal meeting with each person twice a year, and oftentimes they bring in written goals, but we should formalize it more so that we’ve got a reference and so that it’s more on their mind. Also, because we get

mixed results because of the different efforts put in by the student. So yes, if we used Learning Contracts I think they would enhance the coaching effectiveness. When they ask me is this optional or mandatory, I joke and say, you don't have to do anything. But I do think that my window with them is short enough that if I push a little more organization on them that'll have more impact rather than just take it off of my plate and say well it's your fault, you weren't committed enough. This is my chance to mentor them and coach them and it is okay to push them and maybe have them do something they wouldn't otherwise do; because if not, the window is missed.

Much of the interview time centered on a discussion of the coaching styles that Coach Owen customarily employed with his student-athletes. Five styles – Instructional, Socratic (Q&A), Guided Discovery, Peer Sharing (Collaborative), and Self-discovery/independent – were described and the coach was asked about his use of each. An 'Other' was also provided. He responded,

I definitely use them all. Obviously a large component is instructional, but without the others, it doesn't stick, it doesn't have purpose. The biggest issue with adults, and college aged kids is, the why! Answering the why all the time, and why are we doing it and even when they know why their emotions can block them from being able to execute; so I use the Q &A quite a bit to help them answer why - because it is a bit more powerful if they tell me why they need to do this. I'd say the least employed techniques would be the last two (peer-sharing and self-discovery i.e., a solid version of self-directedness). Even though I encourage them, it's just in the interest of time. If I was a professional coach, and there was

unlimited time to work with my group or smaller, I would employ the last two even more.

Coach Owen stated that he firmly believes that ‘certain people respond better to each coaching style.’ He gave the example of a swimmer that he had just finished working with and reported that he asked me at the end, ‘Coach, can you just tell me exactly what I need to do.’ Coach Owen also believes that coaching style ‘changes with each swimmer, each group, and each season. It’s a different challenge every year.’ He stated that he has a swimmer who had a very successful year last season, because he pushed himself so much, however,

It’s a different process this year to deal with after that success. Even though he’s amazing, he’s the best person in our division and could go to the Olympics, but now that he has momentum, how do we go to the next bar?

Coach Owen also believed that the coaching style that is used ‘to take someone who had a horrible year and connect with them and say, here’s how we can do things better’ is different. He also expressed that he believes that coaching style depends on the athlete’s expectations. He stated,

If they were all at the professional level, it would be more assumed that they all have come to me because of my ability to coach the sport and maybe coach the person. But some of them do not have that expectation out of the sport. So, I may know nothing about the sport and they might prefer me if I just made it more fun. The challenge is that all my athletes are not competitive minded. I allow the fiercely competitive ones to achieve high competitive goals. I trick some others into wanting that, and eventually some of them do decide they want it; some are

just doing what's required to stay involved, and faking it to some extent. The hope is that after faking it long enough, they will like it.

Coach Owen also discussed the role of knowledge in dictating coaching style. He believed that knowledge is very important to give support to all of the five coaching styles, but maybe harping back to his father as his coach, stated that he does not 'want to be so powerful in my delivery of the information that the athlete can't listen to me because they're intimidated.' Also, particularly related to the Peer Sharing and Collaborative coaching style, Coach Owen stated that he was very open to any peer sharing coaching opportunities. He expressed full agreement with using specialized professional support in coaching. 'I think it would be helpful to everyone to have some interaction with a third party that was educated about psychology and specifically application to sport.' Coach Owen recounted the positive interactions that his program had with the sport psychologist that the university hired and was offered as a resource. He stated that, unfortunately, this was 'recently pulled back because he's a faculty member.' Coach Owen believed that one of the big reasons that peer-sharing is effective is because,

They have enough of me ... maybe they are not even absorbing what I have said already. To have a different voice has really helped some of them a lot because it's seen as simple, it's not a relationship already under stress; it's a fresh relationship. We also had a nutritionist, but it was discontinued within the first year or two I was here. But it was the same thing; I could tell them something from my exercise science background, or my minor in nutrition, but they are already listening to - don't do this, do this, stay out of trouble, do this stroke - they are saturated. For example, they perform so well for the strength coach. He's

good, but if he wasn't good, and he was just a likable person, they'd also perform very well for him, because they get three hours a week with him and they get fifteen with me.

Coach Owen's responses to the discussion on 'peer-sharing' indicated that he viewed or understood this coaching method as injection from other coaches. However, this method was primarily collaboration between student-athletes, SAs, where they share their interpretation, knowledge, and understanding using student-athletes and teammates' rapport. Peer-sharing was seldom used among student-athletes.

One of the central pillars of Andragogy is the development of trust between facilitator and learner. Coach Owen was asked to give his views on how important he considered the building up of trust was to a successful coaching relationship. He categorically stated,

It means everything. They have to trust that I have their best interest at heart as a group and as an individual; and I have to eventually be able to trust that they support the vision. As long as they trust that I am having their best interest at heart and I trust that they are bringing their best to the table, it's a 50-50 relationship.

Speaking about his very successful and competitive athlete, he stated, 'he trusts me because I have convinced him that I have enough knowledge.' Coach Owen then explained that he believed that fostering his athletes trust in him, had two dimension – their trust in his knowledge, and their trust in the personal relationship. He recounted how much his gaining greater and greater knowledge in the sport made his athletes trust of him 'a rewarding milestone' that now comes easily. He stated that 'the personal

connection part of trust is currently what I am investing the most energy in.' He believed that it takes a long time before a coach is able to deliver both, a knowledgeable practice plan, and to monitor the cues coming from the group. He felt,

There definitely has to be a break-out of the knowledge component and the relationship component of trust. For me it has become clearer as I go further, that I have to have the confidence in the practice session, and then I have to address the personal responses to the training session.

Highlighting the importance of trust in the coaching relationship, he stated that,

Most of the problems between myself and the athletes come from a breakdown of that trust, on one side or both sides. The challenge is, say we have 120 minutes in a practice and we usually have only about 100 minutes, and there are 50 kids there, we are getting two minutes per person. What's being done in those two minutes to maintain the trust, and maintain the relationship, counts for everything.

Major Findings from the Survey Instrument Completed by Coach Owen

In an attempt to gain a deeper perspective of Coach Owen's fundamental beliefs about coaching, and to gain a greater assessment of the coaching practices, which he most employs, he was asked to complete a survey instrument. His responses were a self-reflection on a list of 45 statements reflecting beliefs, feelings, and behaviors that coaches of adults may or may not possess. The instrument was a customized version of John Henschke's Modified Instructional Perspectives Inventory (MIPI). Scores for each of the 45 questions were pooled using a given scoring rubric. This allows an analysis of his beliefs and practices based on the seven principles of as espoused by Henschke and drawn from Malcolm Knowles six assumptions about adult learners. Table 6 presents

Coach Owen's scores, with possible minimums and possible maximums in each of the areas assessed. Scores are on a scale of 1 to 5, where, '1' represents *Almost Never* and a score of '5' represents *Almost Always*.

Table 6

Modified Instructor's Perspectives Inventory as reported by Coach Owen (CO)

Factors	CO's Total Score	Possible Minimum	Possible Maximum
1 Coach empathy with athletes	23	5	25
2 Coach trust of athletes	42	11	55
3 Planning and delivery of instruction	16	5	25
4 Accommodating athlete uniqueness	29	7	35
5 Coach insensitivity toward athletes	21	7	35
6 Experience-based learning techniques (athlete-centered learning process)	15	5	25
7 Coach-centered learning process	9	5	25
Grand Total	155	45	225

Coach Owen scored the highest on the factor of empathy with athletes, where his responses totaled 23 out of a possible maximum of 25 (92%). He scored himself at 4, *Usually*, on the issues of showing his athletes that he was fully prepared to coach; and noticing and acknowledging positive changes in his athletes. He scored himself at 5 *Almost Always*, on the issues of balancing his efforts between coaching content and motivating; expressing appreciation to those athletes who actively participated; and promoting positive self-esteem in his athletes. This very high score on coaching empathy tied directly to his interview statements about understanding that his swimmers had different reasons for being in the program. That his job was to help them be the best that

they wanted to be, and that he wanted them to trust that he was doing the best he could for each one of them. This strong empathetic concern, was also supported by the fact that his second highest score was in the factor of accommodating athlete uniqueness where, Coach Owen scored himself at 29 out of a possible maximum of, 35 (82%). In this group of questions, he scored lowest (*3 or Sometimes*) on asking his athletes how they would approach a given task. He scored himself at *4 or Usually*, on demonstrating acceptance of athletes' frustrations; purposefully communicating to each athlete that s/he is uniquely important; individualizing his pace of coaching; and helping athletes explore their own abilities. His two highest scores (*5 or Almost Always*) in this area of accommodating uniqueness, Factor4, were in his acknowledgement that his athletes varied in the way that they acquire, process, and apply new or refined knowledge; and in his efforts at really listening to what his athletes had to say.

Results of the MIPI revealed that Coach Owen scored himself at just a little over average in three of Henschke's seven factors of the fundamental practices of Andragogy highlighting, beliefs, feelings, and behaviors – (a) the planning and delivery of instruction, Factor 3, (b) the utilization of an experience-based or athlete-centered learning process, Factor 6, and (c) his insensitivity toward his athletes, Factor 5. With regard to the planning and delivery of instruction, item 3 on the table, on which he scored himself at 16 out of a possible maximum of 25 (64%), Coach Owen acknowledged that while he does usually use a variety of coaching techniques, and does also, usually establish instructional goals. He stated that he does not often search for and create new coaching techniques, or use a variety of instructional media. He further reported that he only sometimes integrated his coaching strategies and techniques with subject matter

content. This, synergizes, as expected, with his self-graded score of 15 out of 25 (60%) in the learner-centeredness of his coaching, Factor 6. His highest score in this area (*5 or Almost Always*) was for coaching allegorically, or through visualizations and simulations of real-life, and his lowest score in this area (*1 or Almost Never*) was in using ‘listening teams,’ that is, learners grouped together to listen for specific purposes, during practice sessions.

In the other dimensions of this cluster – use of buzz groups, conducting group discussions, and role playing (question 2 of the MIPI), Coach Owen graded himself at 3 *Sometimes*. The third area in which Coach Owen scored himself at roughly average (60%) in Table 6, was in the area of his sensitivity/insensitivity to his athletes, Factor 5. This was a surprising score, given that of the seven overall factors, his highest score (92%) was on his empathy with his athletes, Factor 1, and one might expect empathy and sensitivity to be more in alignment. However, Coach Owen reported that he sometimes has difficulty understanding his athletes’ viewpoints, he sometimes has difficulty getting his points across to them, and he sometimes demonstrates impatience with their progress. The two questions which caused his sensitivity factor to fall were in his reported usual demonstration of frustration with his athletes’ apathy, and his usual demonstration of irritation with his athletes’ inattentiveness in the coaching setting. In the seventh factor which assesses the coach-centeredness of learning practices, Coach Owen’s score of 9 was significantly below the andragogically desired maximum of 25 (36%). He acknowledged a lack of flexibility by reporting that he mostly coaches ‘exactly what and how’ he planned, and also reported that usually his primary goal was to provide the athletes with ‘as much information as possible’, and that he also usually required his

athletes ‘to follow the precise coaching instruction’ that he provided to them. Also, as is generally the case, Coach Owen reported that he almost always tried to make his presentations ‘clear enough to forestall all questions’, and almost always showed confidence that his ‘coaching skills are refined and clear.’

In addition to the MIPI, Coach Owen completed a self-assessment of the needs of his SAs using an instrument (Appendix F) created by the PI for this research based on Knowles’ six assumptions of the adult learner. Table 7 speaks to the contents of the instrument. Coach Owen had to score himself on a scale of 1 to 5, with regard to his belief as to how much his SAs ideally needed the following learning attributes, versus how much he thought he actually provided those attributes to them.

Table 7

Assumptions About the Needs of Adult Learners

1. Do you empower them to be self-directed in the learning of new things (personal responsibility and independence)?
 2. Do you give them freedom to draw on past feelings, experience, education, concepts, and associations?
 3. Do you encourage them to draw on real life situations as a means to learning more readily (readiness to learn)?
 4. Do you give them greater freedom to explore individual or group-centered problem-solving practices?
 5. Do you allow adequate intrinsic motivation/incentives that encourage greater drive to overcome and accomplish goals?
 - 6.1 Do you allow them to be involved in the instruction (need to know what and why they do things)?
 - 6.2 Do you allow them to be involved in the assessments and evaluations (need to know what and why they do things)?
-

Coach Owen ranked every one of the above attributes that Knowles professed are ideally needed by adult learners, at the highest score of ‘5’ on the 5 point scale. With regard to how much he actually executed these learning attributes however, he scored the first three at 3 and the last four at 2. As supported by his interview responses as well as,

his MIPI scores, there was a significant difference between what would be ideal adult learner needs for his adult swimmers and what were actual in Coach Owen's specific coaching and training environments. This finding was a recurring theme, and is discussed in one of the major conclusions of Chapter Five of this study.

Major Findings from Poolside Observations

More than talk, as is in an interview, or even words and scores, as is in a completed survey form, observed actions gave the most accurate picture of a reality. Notes from the six, one-hour-plus long, poolside observations of Coach Owen and his SAs revealed important themes related to the applicability of the principles and practices of Andragogy to the coaching of a varsity sport, like, swimming.

Athletes were divided into three groups – Sprint, Middle-Distance, and Distance (diving apart). A typical weekly practice schedule is presented in Table 8.

Table 8

Typical Weekly Practice Schedule

Monday	5:15-7:00am	Distance Swimmers
	7-8:45am	Sprint Swimmers
	1:30-3pm	Distance Swimmers
	3:30-4:30pm	All swimmers - Conditioning on campus
Tuesday	7:30-8:30 am	All swimmers - Conditioning on campus
	1:30-3 pm	Sprint Swimmers
Wednesday	5:15-7:00 am	Distance Swimmers
	7-8:45 am	Sprint Swimmers

Continued

Table 8. Continued

	1:30-3 pm	Distance Swimmers
	3:30-4:30 pm	All swimmers - Conditioning on campus
Thursday	7-8:30 am	All swimmers - Conditioning on campus
	1:30-3 pm	Sprint Swimmers
Friday	5:15-7:00 am	Distance Swimmers
	7-8:45 am	Sprint Swimmers
	11:00-1:30 pm	Miscellaneous Swimming
	1:30-3 pm	Distance Swimmers
	3:30-4:30 pm	All swimmers - Conditioning on campus
Saturday	5:30-7:00 am	All swimmers - Conditioning on campus

The practices followed an almost standardized routine. At the start, the pool deck was busy with bodies moving back and forth. For the practices that are event specific there were approximately 20 swimmers, and for the ‘all swimmers’ practices, there were almost 60 young male and female student-athletes (SAs) and coaches moving into their various positions. The SAs know the routine and there was a good sense of comradery. The SAs were allowed significant freedom in their ‘warm-ups’ where he allowed each one to select and vary his/her style, speed etc. Coach Owen would then call them together and with the aid of a white board, outlined each session’s training goal, and provided them with general technical information as to how this would improve their techniques and times. He would then divide them into smaller groups as they prepared to resume. The responses from the SAs always showed great variation and the PI was reminded that Coach Owen said that some of them are there more for the social aspect of the

experience. For each group, he used six lanes with an average of three swimmers per lane, one following the other. There were a few SAs who lacked proper technique and were not practicing what they were asked, and it was observed that the groups' large size was too much for Coach Owen to very astutely assess and single them out for correction. After about 15 minutes, Coach Owen would usually call the SAs together to coach/instruct some aspect of technique on the white board. Again, there were several SAs who were not as attentive, but he pressed on and did not call them out.

Over the full 45 minutes of practice, Coach Owen used several training apparatuses such as 'soft balls,' to help them develop arm strength, or, bands to strap their legs together in order to develop arm strength and efficiency and to prevent their bodies from rolling and pivoting. He also used resistance stretch bands attached to their ankles where the athletes would have to exert greater propulsion force in their quest to reach the targeted finish line. Throughout the practices, Coach Owen would call out instructions and make corrections. He would sometime 'jump' into the pool to demonstrate and this always seemed to serve a useful purpose. He talked to several athletes at the end of the pool where he was standing, sometimes about technique and sometimes about a psychological, motivational reminder. It was however observed by the PI that he appeared to have his eyes on some SAs more than others, indicative of his earlier claims that some SAs were more serious while others more socially inclined. Over the course of the practice, Coach Owen also talked with his two Graduate Assistants and one Assistant Coach about what he wanted to see in the athletes' techniques. About 10 minutes before the end of practice, Coach Owen would call for about a six-length of free-style swims as his cool-down exercise. He then closed the sessions with reminders and

information for the next day. In all of the observed sessions, Coach Owen had one-on-one coaching discussions with two or three SAs whom he had called aside at the end of practice. There were times also when SAs stayed back to talk some personal, non-swim issue with their coach.

In each of the six poolside observations, there was a deliberate attempt by the PI to watch for evidence of Coach Owen's use, or lack of use, of Henschke's seven MIPI subsets based on beliefs, feelings, and behaviors, as he had self-reported in his completed MIPI. His empathy for his SAs was strongly evident by the manner in which he spoke to them, this even when it was also observed that he had his 'blue-eyed' SAs. He recognized how difficult it was for them to be at practice so early in the morning, and acknowledged all their difficulties amidst studies and tests and other social attractions that come with college students. Especially when correction of technique became 'hardline', he often came back to that athlete and showed compassion as he tried to remove any hurt and encourage him/her. One of his strongest points as a coach was how openly he encouraged his SAs 'to just try' and the constant enthusiasm he showed in the practices. The PI was reminded of Wlodkowski's 1985 work on "Enhancing Adult Motivation to Learn" where he talked about the very important role of player motivation, enthusiasm, and empathy, also, hallmark traits of Henschke's (2011) trust building advocates. On the second principle of building trust between athlete and coach, also as reported on his MIPI, the PI observed several instances where Coach Owen openly stated to his SAs that he trusted them. He repeated that he trusted them to give of their best, and he encouraged all, regardless of their ability, to try to excel. This expression of trust may work to his detriment as he seldom pushed some of his SAs or demanded the excellence he so freely

spoke of. There were a few SAs who appeared not to be holding up their side of the trust equation - some showed disinterest in the practices and definitely did not give of their best – though present, they tended to be absent! Also, there were a few instances when, judging from the questions asked by a few of the best swimmers on the team, there may have been problem issues with the SAs' trust in Coach Owen's knowledge of what they believed was best for them. They were SAs that came from high-level coaching settings and would ask questions, receive the responses but there were nuances and facial expressions that suggested confusion and hardly were there any follow-up questions for substantiation.

With regard to his planning and delivery of instruction, item three of Henschke's MIPI seven subsets, Coach Owen showed to be more coach-centered. He came with a prepared, written lesson plan, with the drills, the progressions, and placement of SAs clearly formulated. He shared these with the SAs and gave his expectations. Very seldom did any athlete voice their views or asked questions. He demonstrated, used the white-board to explain, and then sent them in the pool to execute. It appeared that if SAs had questions, they were more inclined to come to him after the training. It was unclear if the after-practice student-initiated discussions were a result of fear of intimidation of the coaching staff should the student-athletes have voiced their opinions in a during-practice open forum. This instruction method flies in the face of Andragogy, but as Coach Owen had reported that he would ideally like to have more learner-centeredness in his coaching, it may be that he felt it is not practical, given, the team size and relatively short duration of the practice times. The poolside observations did made the PI more inclined to suggest that Coach Owen tried his best to accommodate the uniqueness of each of his athletes. He

showed that he appreciated that each person comes from different previous swimming and cultural environments, and that everyone's expectations for what they wanted to get out of the team is not the same. He however encouraged all with phrases like – 'it is not about hitting the number, but doing the things that give you the number.' Coach Owen also included in his program, aspects of physical fitness and weight training, but showed his sensitivity that this area is more difficult for some than it is for others. The area of accommodating uniqueness, item four of Henschke's seven subsets, that, Coach Owen seemed somewhat intolerant of, showed when he expressed frustration with a few SAs who were not meeting his expectations. He sometimes displayed an, 'I give up' type of response, and an, 'It is better if I don't say anything' reply. However, he would quickly show an inner remorse by using more sensitive words to rebuild the relationship and ensure trust restoration. In looking for any display of insensitivity towards his SAs, it appeared in the area of equal treatment to all. Coach Owen appeared to neglect certain SAs by his tendency to focus more on his "favorites." For the seeming lesser preferred, he tended to be more general in his coaching instructions and in his selective pointing out of examples of good effort. As would be expected from the recount of his planning and delivery of instruction, Coach Owen showed to apply more of a coach-centered rather than an athlete-centered learning process. Often, Coach Owen was instructive and authoritative. He would however, encourage SAs to draw on their past experiences, dig into their own inner drive for strength, and encouraged self-discovery through the identification of their own strengths and recognition of their shortfalls. He understood that this encouragement was an engagement of the mental and psychological aspect of the sport. With regard to the technical and tactical part of the sport, Coach Owen was the

authority. This may reflect the very coach-centered experiences he had as an athlete.

Even when there were instances of an athlete making a point about an instruction, Coach Owen listened, but his responses appeared to suggest that he was not truly agreeing with the comment or even, might have just been accommodating purely for the walk-through and the rendering of time to all SAs to engage in an exchange.

Major Findings from the Survey Instrument Completed by the Student-athletes (SAs)

Of the 55 student athletes on the Lindenwood University Men and Women Swimming and Diving varsity program, three were excluded from the study because they were not classified as ‘adults’ (18 and over), and two others chose not to participate. Of the potential 50 athletes, the electronic Questionnaire/Survey instrument was completed and returned by 39 SAs. In the following analysis, the responses of these 39 SAs were taken to represent the team. Responses to Part A (nine questions) of the instrument revealed that Coach Owen’s team consists of 19 males and 20 females in the age group, 18 to 24. Most were 19 and 20-year olds. Throughout the analysis, the opinions of the three oldest SAs, ages, 23, 23, and 24, were highlighted to look for differences in correlations to the principles and practices of Andragogy, relative to the 36 younger ones. Of the 39 respondents, 18 are upper-classmen (juniors and seniors), and all but two were competitive swimmers before entering Lindenwood University. The team reflected a high level of competitive experience with several, deemed, ‘elite’ athletes. Only 10 athletes reported their highest level of participation as ‘high school’, with the others listing other universities and state level competitive experience. As many as 19 of the respondents stated that they swam before in national level competitions. All but one athlete also

reported that they participated in competitive swimming for over four years, making their comments about their LU coaching experience particularly rich, as they were experienced recipients of various coaching methods and team dynamics in this sport. While they have all been swimming for a long while, when asked about the length of time they have been participating in the particular event in which they are representing the Lindenwood University (LU), approximately 50% of the SAs answered that it was a relatively short six months. All the respondents reflected that they were active team participants who trained over seven times each week.

Part B (18 questions) of the survey instrument solicited open-ended responses about the SAs' experiences under Coach Owen as well as their views on his style and methods of coaching. When asked about their reasons for being on the team and their personal goals, SAs almost unanimously reported that they loved swimming and desired to get better. The majority of the SAs reported that Coach Owen only sometimes adjusted the training to cater to their specific needs and outlined his rationale for doing particular training exercises. However, almost all SAs selected 'yes' when asked if Coach Owen used a lot of demonstration. Also, responses unanimously confirmed that Coach Owen did 'wrap-ups and go-overs' right after the training session, and that he did discuss the various aspects of his training sessions throughout the season, sometimes intermingling the past with the present. Also, that at the end of every practice, he did provide information regarding the next day's practice, and that he did discuss the goals, skills, techniques, and tactics that he wanted in each training session. This open communication, repetition, and constant emphasizing were crucial aspects of good teaching/coaching, and at least in this one-way flow, Coach Owen was assessed very favorably by his athletes.

Table 9

Coaching Style

Style	Percentage	Sample Examples
Instructional	40.0%	He provides abundant amounts of useful information; informative and structured; Good and clear instructions; He explains everything then will demonstrate it; He describes and shows how something should be done and gives examples; Jason loves to make analogies to help us understand the concept he is trying to get across, which helps a lot of us understand what he is trying to say.
Questions & Answers (Socratic)	0%	No one selected this method
Guided Discovery	37.0%	He knows that everyone is different therefore he listens and provides individual options that could solve the issue; He provides instructions and guidance tailored to each individual when speaking to them one-on-one; always willing to answer any questions and give any advice needed to help us improve; he emphasizes that we actually learn and understand what we need to do by doing it, as opposed to just being told what to do; tells us how to fix it, then let us do exercises to figure out how to do what he is telling us.
Facilitating Self-Discovery	10.5%	Jason sees that he cannot force change on us, so whether it's to change our technique or the way we work, he simply gives us the tools to do it.
Peer-Sharing/ Collaborative	10.5%	A synthesis of both.
Other	2.0%	No comment was made.

Question 10 of Part B of the survey instrument asked the SAs to describe the coaching style of Coach Owen by selecting one of the five listed styles that they thought applied to him and by providing an opportunity for them to make open-ended responses to elaborate on their choice. Table 9 summarizes their responses and samples.

As summarized in Table 9, 40% of the athletes thought that Coach Owen exhibited an Instructional style of coaching, with the comments referencing – informing, telling, demonstrating, giving instructions, explaining, giving examples, and making analogies. A further 37% percent thought that he demonstrated a Guided Discovery

coaching style. However, when their examples were detailed, it is clear that many SAs selected Guided Discovery because he does a great deal of demonstration and that helped them lessen their efforts to independently problem-solve. However, the educational parlance, ‘telling, showing, letting’ namely, when I tell, you listen; I show, you watch; and I let, you do, has a strong resemblance to the Instructional coaching style (this is an early-in-the-scheme-of-coaching/teaching approach that the successful coaches use so as to establish a base for paying attention and joining in the journey, ensuring a more guaranteed learning and comprehending environment. The, tell, show, let are the best and sometimes, only, three mediums for coaching and learning as it encompasses all three learning skills. Coaches know that those who utilize all three turn out better results than those who use two, and more so, those who use one). It was an encouraging revelation to see the stark resemblance to Coach Krzyzewski, “K”, as he spoke to training and development in his chapter six where he encouraged listeners to take heed of what he engages in as he is about to coach; “you hear, you forget; you see, you remember; you do, you understand” (Krzyzewski, 2000, p. 88). However, about half of the SAs who thought that Coach Owen demonstrated a Guided Discovery style, did seem to capture the idea of him providing guidance, but allowing them, individually, to learn and perfect the technique by trying it, and working out the kinks for themselves. This was in line with the 10% of the SAs who believed that he more employed a style that facilitated self-discovery since they saw that Coach Owen fully recognized that he could not force them to learn, so rather just provided the tools and information and, motivated them to work hard on their own. It is very noteworthy that none of the SAs selected the Q&A (Socratic) method as Coach Owen’s dominant style. This did not bode well for Coach Owen as an

andragogue since the Socratic method is at the heart of Andragogy. The Q&A method lends to student-athletes taking lead questions provided by the Coach and then being encouraged to obtain the solutions or answers. This is akin to Guided-discovery in many senses and speaks to a core value of Andragogy.

Following the questions related to overall coaching style, SAs were asked about their personal time with Coach Owen, and whether or not they thought that he paid enough attention to them in specific areas. With regard to needs related to swimming techniques and performance improvement, only three SAs thought that Coach Owen did not pay sufficient attention to them. And all three expressed that this was because of his time constraints and the size of the program. One athlete stated, ‘Swimming is a highly individualized sport. There is a lot of personal responsibility. The coach is a mentor and source of knowledge, but he is not there to hold your hand.’ With regard to needs related to physical and mental health and wellness, there were a slightly higher number, six, of SAs who thought that he was not sufficiently meeting their needs. One of these six SAs related that in an earlier practice in the season, she had a problem in this area, and that Coach Owen ‘just stepped away instead of attempting to figure out what was going on and encouraging me.’ She said that she had to be her ‘own hero’ to get back on track with the program. Another athlete reported that, ‘Sometimes he looks at injury as a sign of weakness, which I understand because he has to be tough as a head coach but I wish he would be a little more understanding of physical ailments.’ The other negative comments were related to those athletes’ desire for more guidance on nutrition, greater use of mental training like relaxation techniques and visualization sessions, and just more concern for their overall health issues. With regard to needs related to their academic

progress, Coach Owen scored high here. Only three athletes stated that Coach Owen did not show enough interest, but the details of their comments suggested that they did not have much interaction with him on this issue because their grades were very good and not needing his input.

The question which followed the above analysis of Coach Owen's attention in three specific areas was a genuinely open one which simply asked the SAs what they thought Coach Owen should start, stop, or continue. The responses were varied and sometimes conflicting. For example, several comments reflected the sentiment that he was pushing them hard enough, while several said that he should push them more. One went so far as to state that Coach Owen should 'stop taking crap from his swimmers.' He was obviously a well-liked coach, with many stating that he should just continue working hard with them, giving help and encouragement to them, and just continue to help improve their techniques and times. There were a few specific suggestions – (i) 'Giving the team rest before some swim meets', (ii) 'time to warm down properly after every practice so as to feel better in the water and be less irritable', (iii) 'I wish he would balance the schedules of the three different groups (Distance, Sprint, Mid-Distance) a little more evenly', and (iv) 'Stop keeping us over time in the mornings. Those extra 5-10 minutes could mean the difference between eating breakfast and starving till noon. I don't care if we run late in the afternoon.' It would appear that one of the areas in which Coach Owen was criticized more heavily was in the perceived inequality of his time and relationship with his SAs. Having favorites may be a natural part of group interaction, but when several SAs comment on it, it may reflect a problem on the team and possibly, about the coach. One athlete stated that 'some people feel put aside,' another, 'I would

like him to start coming up to people to talk about a race or anything instead of you having to go talk to him,' and another, 'I would like him to work with all groups equally.' Two additional comments which stood out because of their direct applications to Andragogy, were (i) the comment by one of his athletes, that he wishes Coach Owen would start asking for feedback more frequently, and (ii) the recounting by another SA as to why he thinks Coach Owen personally cares for him: 'Last year I spent time in the hospital and he was there with me at least once a day, and now this semester he has continued to check on my well-being.' These comments were on opposing sides of the sensitivity pendulum.

Andragogy has a great deal to say about creating the right learning environment, and as such, the responses to a question about the type of environment created at the pool for training sessions, was particularly relevant. Every athlete reported that it was indeed a place where they could learn new things. A further 80% also categorized it as a place where they could socialize with teammates, relax, and have fun swimming. In fact one athlete stated that, 'Jason has made it a place to block out outside stressors, and it works very well.' However, 20 of the 39 SAs remarked that the training environment was a high stress one, several of whom had also reported it as 'relaxing.' These athletes called the environment 'too serious,' 'intense,' 'negative,' 'difficult,' and 'highly competitive.' One athlete stated, 'stress isn't really the right word here – it is more like pressure.'

Swimming at a college that participates in Conference, Regional, and National competitions is very competitive and SAs tend to fall on various points on this readiness scale. One swimmer, from the very successful Distance Swimming group, who did not say that the environment was stressful, commented that he thrives on the competition and

quoted one of his coach's favorite sayings as – 'fast is fun.' The SAs were also asked to evaluate their last training season against this current season. While most SAs reported having a good last season, there was a consensus that this season was more successful. Some who stated that they started off last season badly because of poor mental attitude or injury, appear to have turned around their success. Several mentioned that they are training harder this year, some commenting specifically on the impact of their new 'running' component, and that Coach Owen continually 'raises the bar,' encouraging them to set new marks.

Student-athletes were asked to rate their coach using the same Modified Instructional Perspectives Inventory as was used by Coach Owen. Scores for each of the same 45 questions that reflect the principles and practices of Andragogy were pooled using the same scoring rubric. Scores were on a scale of 1 to 5 with, '1' representing *Almost Never* and a score of '5' representing *Almost Always*. This allows an analysis of Coach Owen's coaching 'beliefs, feelings, and behaviors' (based of the seven factors as espoused by John Henschke) as an educator of adult learners. This analysis was drawn from the perspectives of the student-athletes that he coaches. Table 10 presents the mean (arithmetic average) scores of the 39 SAs who completed the survey, with the maximum and minimum score given in each category, as well as the average deviation of the scores from the mean. To ease referencing, the table also lists the score that Coach Owen gave himself.

Table 10

MIPI - Student-Athletes

	Mean	Max	Min	Average Deviation	Coach Owen's Self-Reported Score
1. Coach empathy with athletes (Possible minimum 5; Possible maximum 25)	21.4	25	15	1.88	23
2. Coach trust of athletes (Possible minimum 11, Possible maximum 55)	45.53	55	32	4.32	42
3. Planning and delivery of instruction (Possible minimum 5, Possible maximum 25)	19.74	25	15	2.06	16
4. Accommodating athlete-learner uniqueness (Possible minimum 7, Possible maximum 35)	25.92	35	18	2.45	29
5. Coach insensitivity toward athletes (Possible minimum 7, Possible maximum 35)	25.53	30	20	2.37	21
6. Experience based learning Techniques (athlete-learner-centered learning process) (Possible minimum 5, Possible maximum 25)	15.45	24	9	3	15
7. Coach-centered learning process (Possible minimum 5, Possible maximum 25)	9.11	15	5	1.85	9

On all seven factors, the average scores given by the SAs were remarkably similar to the score Coach Owen gave himself. From a coaching perspective, knowing strengths and weaknesses is an invaluable starting point for one seeking to improve his/her methods. Student-athletes ranked Coach Owen highest on the factor of empathy. On the issues of showing his SAs that he was fully prepared to coach; noticing and acknowledging positive changes in his SAs, balancing his efforts between coaching content and motivating; expressing appreciation to those SAs who actively participated; and promoting positive self-esteem in his SAs, the student-athletes all ranked their coach at a '4' or '5'. Also, the responses were very consistent amongst the SAs as exhibited by the low average deviation score of 1.88 for each SA's total on empathy, Factor 1. This very high score on coaching empathy tied directly to the SAs' characterization of Coach Owen as supportive, interested, and committed. On the factors which addressed the philosophical beliefs demonstrated in his coaching, the SAs also believed that their coach trusts them, Factor 2, does accommodate their uniqueness, Factor 4, and is sensitive to their needs, Factor 5. On the factors which more relate to his coaching methods, while the SAs gave Coach Owen 19.74 out of a possible maximum of 25 on his planning and delivery of instruction, the scores for athlete-centeredness, Factor 6, versus coach centeredness, Factor 7, both revealed real disparities from the andragogical ideal, as depicted in Table 11.

Table 11 shows the specific questions used in the scoring rubric for these two factors, 6 and 7, respectively, athlete-centered learning process and coach-centered learning process. The responses by his swimmers revealed that Coach Owen is seen as greatly focused on providing information in a planned-out practice, and that he does not

deviate much from the plan. His SAs believed that he is greatly concerned with showing them exactly what to do, and that he demonstrates his confidence as a coach by how unquestioned his instructions are followed.

Table 11

MIPI - Athletes: Details of Two Contrasted Coaching Processes

Athlete-Centered Learning Process	Coach-Centered Learning Process
Uses buzz groups (athletes placed in small groups for discussion) - Question 2. Coaches through simulations of real-life (coach parabolically) - Question 10. Conducts group discussions - Question 21.	Shows that his primary goal is to in provide athletes with as much information as possible - Question 3 Coaches exactly what and how is planned - Question 11. Tries to make his presentations clear enough to forestall all SAs questions - Question 20.
Uses listening teams (learners grouped together to listen for specific purposes) skills - Question 24. Conducts role plays - Question 35.	Shows confidence that his coaching are refined and clear - Question 25. Requires athletes to follow the precise coaching instructions he provides to them - Question 34.

The ideal score from the perspective of an androgogue is 25, but the SAs gave Coach Owen a score of 9.11, almost identical to the score that he gave himself. In contrast, a more athlete-centered learning process, Factor 6, would require greater use of small and large group discussions, many real-life simulations and role plays, and greater use of listening teams. On these questions, the SAs gave their coach an average score of 15.45 out of a maximum possible of 25. Again however, this score almost exactly matched the score that Coach Owen gave himself, indicating that he acknowledged that he seldom uses these learner-centered measures and is heavily coach-centered.

In the final Part, D of the survey, SAs were asked questions to test Knowles' Six Assumptions about the adult learner's desire for more empowerment, more freedom, greater use of their experiences, more involvement in the learning process, etc. Questions were phrased to solicit a score to show what SAs perceived they were actually getting under Coach Owen, versus what they received as the ideal that they would have liked to get, on each dimension. As shown in Table 12, the average score of what SAs perceive they were actually getting from their coach is within 13% of what they perceive was their ideal. The greatest variation was in Assumption 4, which holds that adult learners need greater freedom to explore individual or group-centered problem-solving. This gave preliminary confirmation to Knowles' assertion that adults desire to have greater freedom in their learning. Assumption six, that they want to be more involved in their instruction, 6.1, and in their assessments and evaluations, 6.2, was the assumption with the second highest deviation of actual from ideal, namely, 9% and 11%. In the other four assumptions, the actual occurrence deviated from what was perceived to be ideal by 7% or less. In all cases, the ideal were higher than the actual. This may be a function of their status as 'young adults' (eldest athlete is 24 years old) their previous coaching experiences, or, as several referenced in the open-ended section of the survey, their practical acceptance that in a big group, with such diverse personal goals, a great deal of individual freedom and self-directedness is not truly possible.

The Actual-Ideal Deviation was achieved by calculating the difference between the ideal and actual as a percentage of the ideal.

Table 12

Assumptions About Adult Learners - Athletes Average Scores on Actual Versus Ideal

Assumption	Perception of what were the Actuals (real) received in practices	What they believed were the Ideals received in practices	Actual/Ideal % Deviation
1. Empowered to be more self-directed in the learning of new things.	4.18	4.39	5%
2. Given the freedom to Draw on past feelings, experiences, education etc.	4.11	4.37	6%
3. Encouraged to draw on real-life situations as a means to learning more readily	4.13	4.45	7%
4. Given greater freedom to explore individual or group-centered problem solving	3.45	3.95	13%
5. Given more intrinsic motivation and incentives that encourage greater drive to overcome obstacles	4.16	4.42	6%
6.1. Involved in the need/ Instruction to know what and why they do things.	3.97	4.37	9%
6.2. Involved in the assessments and evaluations.	3.87	4.34	11%

Findings of the Focus Group

The fifth and final data gathering method was a focus group of student-athletes who had been training under Coach Owen for some time. The invitation to participate was sent out to only junior and senior members of the Swimming and Diving Teams, and 15 of them completed the Consent Form and agreed to the confidentiality terms. The

rationalization for using seniors and juniors was because they would have more likely had greater knowledge of Coach Owen over previous years than sophomores and freshmen thereby presenting more accurate information. All of the 15 of the SAs committing to the focus group turned up for the session. Nine of the participants were male and six were females, with seven seniors, and eight juniors. The inclusion of this method was intended to further triangulate and re-check the findings of the survey which SAs had completed, as well as to provide their personal ‘short stories’ of their “lived experiences” (as with phenomenological studies) with Coach Owen. Also, the Focus Group gave the SAs the ability to clarify the meaning of certain questions related to their assessment of the coaching that they have received under Coach Owen.

Much of the discussion in the focus group emanated from prompts, which questioned the SAs about Coach Owen’s use of andragogical and self-directed principles and practices. Their stories were related to Coach Owen’s constant urging for them to take personal responsibility for their improved techniques and times, and for his challenge to them to do their best. All 15 participants felt that they were, empowered to be more self-directed in the learning of new things, given freedom to draw on their past experiences, and encouraged to draw on real life situations as a means to learning more readily. One student happily recounted how Coach Owen encouraged them to ask for help from teammates, and another talked about how involved he was in their training. He further shared that he enjoyed how Coach Owen easily ‘jumps’ into the pool to demonstrate or help out, and how the coach would often choose one swimmer to demonstrate. Another SA stated that he had been swimming for 11 years so he can quickly correct his errors, and Coach Owen allowed him to do so with prompts and clues.

What was also clear though, was that several of the SAs talked about having little input, as in the planning of their training and instruction. Several SAs did think that, since they had a clear and real picture of their needs, as well as their strengths and weaknesses, and therefore, their greater involvement in the instruction could have been more productive and beneficial. However, several other SAs spoke up about how they had gone to see Coach Owen with a suggestion for an area to work on and that he did include it. Also, several focus group participants expressed the belief that there is no one perfect way to coach and that they are constantly learning with their coach – a kind of co-learning environment. This idea of collaboration between the coach and the SA occurred several times in the discussion. The SAs acknowledge that the coach obviously knows better than them about correct technique and tactics, and they did not want Coach Owen to allow them to waste their time trying things that are already proven to not work, and they did believe that they learned with and from their coach. One SA beautifully expressed his love for his sport and his team, while another stated that swimming is very unique in that it is an individual sport and at the same time, a team sport. As a consequence, he believed that there should be a lot of self-discovery, but there are limits because one's performance can affect the whole team and so, too much personal deviation or self-exploration can hinder what might be best for the, whole. Nothing discussed in the focus group contradicted any of the previous findings from the other methods and the very favorable scores given by Coach Owen's student-athletes continued to be a testament to his hard work and devotion to his swimmers.

Summary

This chapter summarized the findings of the five main data gathering methods employed in this study. The findings revealed that Coach Owen's beliefs about himself and what he thinks he does aligned closely to the principles of Andragogy. The interviews with Coach Owen gave great insight into the man, his beliefs as a coach, and his constant desire to improve his coaching style and methods. The customized version of John Henschke's Modified Instructional Perspectives Inventory (MIPI), which pooled scores for 45 questions to allow an analysis based on the seven factors identified as beliefs, feelings, and behaviors of adult educators, espoused by Henschke, were completed by Coach Owen as well as the student-athletes. These results provided a deeper perspective of Coach Owen's fundamental beliefs, feelings, and behaviors about coaching, and a greater assessment of the coaching practices, which he most employs. Student-athletes completed an in-depth questionnaire and survey instrument from which basic personal information was collected in Part A; open-ended responses about Coach Owen's method and style of coaching were collected in Part B; their responses to the 45 MIPI questions were gathered in Part C; and scores for the actual versus ideal learning needs of adult student-athletes were collected in Part D. The methodology also included poolside observations, which were used to cross-check scores on the MIPI completed by both Coach Owen and the SAs. The final data gathering method was a focus group of student-athletes who had been training under Coach Owen for some time and comprised of seniors and juniors only. These findings were used to further triangulate and re-check the findings of the survey and questionnaire, and provided numerous personal anecdotes of their experiences under Coach Owen. As will be discussed in Chapter Five, the

findings provided direct answers to the four research questions of this study and facilitated several conclusions about the application of Andragogy to coaching collegiate sports. Hopefully, these findings, in the art and science of helping athletes learn, will go beyond this research and maybe, inspire the birth of a new philosophy - this is unveiled in Chapter Five.

Chapter Five: Research Answers, Conclusions, and Recommendations

Introduction

This study, as a single case study of the coaching principles and practices in one collegiate sports program, was limited in its generalizability of the application of Andragogy to the coaching of adult sports. However, the study did lead to several broad conclusions which appear to be useful additions to this overall topic. This study's key focus was to investigate and explore the use of Andragogical principles and practices by the Swimming and Diving coach at Lindenwood University. In essence, to explore to what extent, if any, the Head Coach employed Andragogical principles and practices as part of his coaching philosophy and strategies. The study also sought to analyze and then compare, the realities and the perceptions that both coach and student-athletes had of the coaching process. There were four main research questions, and this chapter used the research findings outlined in Chapter Four, based on all the five data collection sources, to answer the study's research questions. The chapter then highlights eight major study conclusions based on the information gathered. For example, conclusion one highlights that although there is strong philosophical appeal to the practices of Andragogy, in a college level sporting program where performance records and recruitment are important, and where the coach coaches under a number of practical constraints, it is sometimes very difficult to stick with the recommended practices of Andragogy. Also, included among this study's major conclusions, is a recommendation for an adjustment in the Modified Instructional Perspectives Inventory to reflect several factors, which appear to be more important to student-athletes than are reflected in the existing MIPI.

The final conclusion of this study gives birth to the term “Athlitigogy.” This term was spawned by Dr. Stephen Sherblom, the PI’s Qualitative Research Professor, to represent the application of andragogical principles and practices to coaching adults in sport settings. This term is giving new wings to the branches of Andragogy because of its overall appeal to coaching and because of its promise of better all-round results. In addition, this conclusion suggests that the term Athlitigogy, because of its emphasis on trust reciprocity, sensitivity to the needs of each individual, and tendency to incorporate various coaching styles, may be applicable to all age-group levels. Indeed, given the intimately affective nature of coaching in sports globally, it may be postulated that the coach-athlete relationship can hardly be rivaled by any other human exchange teaching-learning relationship, save, the parent-child. Even in this, many a parent have called on coaches of their child’s sport to help where they encounter difficulty.

Answers to Research Questions

Question One. In what ways, if any, does the Coach of the Lindenwood University Men and Women’s Varsity Swimming and Diving Programs practice the principles of Andragogy in his coaching? Coach Owen believes in the principles of Andragogy to a very significant extent. His basic coaching philosophy is that each of his student-athletes is unique and brings with them all their past swimming and diving feelings, experiences, education, concepts, and associations (Glancy & Isenberg, 2013). During the course of this study, Coach Owen expressed his appreciation for the value of self-directed learning and desired to make his SAs independent thinkers. He saw his job as providing a constructive environment based on trust and mutual respect to allow them to reach their maximum potential. With regard to his practices of these ‘beliefs, feelings,

and behaviors' however, Coach Owen's coaching methods revealed a more reserved rate of adoption. His coaching was still highly focused on structured practice sessions, which he almost single-handedly designed, making his method more coach-centered than learner-centered. Also, while he displayed significant trust of his student-athletes, did accommodate SA uniqueness, and did encourage some collaboration of discussion on coaching points, his coaching was gauged to be heavily concentrated on the provision of information and his clear expectation for the practice session. Also, Coach Owen set the bar so high that he created stress and fear in the learning environment. The answer to this research question, further detailed in the discussion of conclusion one that follows, is that beliefs and feelings on the one hand, are not necessarily the same as practices and expectations on the other.

Question Two. In what ways, if any, does the coach of the Lindenwood University Men and Women's Varsity Swimming and Diving Programs perceive that he practices the principles of Andragogy using Henschke's (1989) Modified Instructional Perspectives Inventory (MIPI)? The MIPI, which asks 45 questions related to beliefs, feelings, and behaviors, to score Henschke's seven factors of the fundamental practices of Andragogy, is provided in Appendix F. In Coach Owen's perceptions about his coaching practices, he scored himself highest on factor 1 – empathy with SAs. He believed that he usually showed his SAs that he was fully prepared to coach (question 4), that he noticed and acknowledged positive changes in them (question 12), that he almost always balanced his efforts between coaching content and motivating (question 19), and that he usually promoted positive self-esteem in his SAs (question 33). This perception of himself as having a strong empathetic concern, was also supported by the fact that he

scored himself second highest on Henschke's fourth factor - accommodating athlete uniqueness. He believed that he usually asked his SAs how they would approach a given task (question 38), usually demonstrated acceptance of their frustrations (question 6), and usually communicated to each athlete that s/he is uniquely important (question 14).

Coach Owen scored himself at just above average on three of the other seven MIPI factors:- (i) Factor 3 - the planning and delivery of instruction; (ii) Factor 6 - the utilization of an experience-based or athlete-centered learning process; and (iii) Factor 5 - his insensitivity toward his athletes. Coach Owen scored himself the lowest on factor 7 - the coach-centeredness of learning practices. He perceived that he lacked flexibility, that he coached "exactly what and how" he planned, and that he usually required his SAs "to follow the precise coaching instruction" that he provided to them.

Question Three. In what ways, if any, do the student-athletes of the LU Varsity Swimming and Diving Programs perceive that their coach practices the principles of Andragogy using Henschke's (1989) Modified Instructional Perspectives Inventory (MIPI)? From the perspectives of the SAs, Coach Owen ranked the highest on the factor of empathy. On the issues of showing his SAs that he was fully prepared to coach (question 4); noticing and acknowledging positive changes in them (question 12); balancing his efforts between coaching content and motivating (question 19); expressing appreciation to those SAs who actively participated (question 26); and promoting positive self-esteem in his SAs (question 33) - the student-athletes all ranked their coach at the favorable, 4 or 5 end on the 5-point scale. Also, as shown by the low average deviation score illustrated in Table 10, the responses were very consistent amongst the SAs. The very high score on coaching empathy ties directly to the SAs' characterization of Coach

Owen as supportive, interested, and committed. The SAs scored Coach Owen second, third, and fourth highest on factor 2 - trust, factor 4- accommodating their uniqueness, and factor 5 - sensitivity to their needs. The SAs also perceived their coach as strong on his planning and delivery of instruction, but on the factors related to his coaching methods, scores for factor 6 - athlete-centeredness, versus factor 7 - coach-centeredness, reveal real disparities from the andragogical ideal. The perceptions of his SAs are that Coach Owen is greatly focused on providing information in planned-out practices (question 3), and that he does not deviate much from the plan. His SAs believed that he is greatly concerned with showing them exactly what to do, and that he demonstrated his confidence as a coach by how unquestioningly his instructions were followed.

Question Four. What is the comparison between the coach's perception and those of the student-athletes regarding the ways in which he practices the principles of Andragogy? As shown in Table 10, when the mean scores of the 39 athletes who completed the MIPI are compared with the score Coach Owen gave himself, for all of Henschke's seven factors of the fundamental beliefs and practices of andragogy, the athletes' scores were remarkably similar to the coach's scoring of himself. This showed that Coach Owen's perceptions of himself closely parallel the perceptions that his SAs have of him. From a coaching perspective, knowing one's own strengths and weaknesses is an invaluable starting point for one seeking to alter or improve his/her coaching style and methods. In particular, on factor 6 - a more athlete-centered learning process, all perceived that this would require a greater use of small and large group discussions, more real-life simulations and role plays, and greater use of listening teams. Again on this factor however, the athletes' average score of 15.45, almost exactly matched the score of

15 that Coach Owen gave himself. This indicated that he acknowledged seldom use of these learner-centered measures, key tools in the effective practice of Andragogy.

Study's Major Conclusions

Conclusion One. One of the major conclusions of this study is that in collegiate-level coaching, when the philosophical appeal of the principles of Andragogy is juxtaposed against the practical constraints of the practices of Andragogy, the practical constraints seem to win out. Coach Owen follows in a long line of committed, successful coaches, many of whom were cited in Chapter Two, who recognize the value of the principles and practices of Andragogy – whether or not they named it as that. In his interview, Coach Owen directly and unwaveringly stated that his biggest joy in coaching was seeing the SAs succeed. He then went on to show that he fully recognized and valued freedom in learning, self-directedness, trust between athlete and coach, and an empathetic coaching spirit. He also clearly saw that his biggest contribution was as a motivator and encourager. When Coach Owen completed the part of his questionnaire which asked about what he perceived his student-athletes most needed, using the instrument created by the PI based on Knowles' six assumptions of the adult learner (Table 12), he ranked each one of the attributes at the highest score of '5'. He confirmed that he was an andragogue in his coaching beliefs and philosophies. He clearly agreed that (i) self-directedness in learning new things, (ii) freedom to draw on past feelings, experiences, education, concepts, and associations, (iii) encouragement to draw on real life situations, (iv) group-centered problem solving, (v) intrinsic motivation to encourage greater drive, and (vi) greater involvement in the instruction as well as the evaluations, were all very important to the athlete. However, when an inventory of his common practices were

compiled (the MIPI), from both his own self-reported perspective, as well as the perspectives of his student-athletes, the findings showed that his coaching was too focused on the planning and delivery of instruction, and that he followed a heavy coach-centered learning process. He planned out each session exactly, attempted to provide as much up-front information to forestall questions, and expected his SAs to precisely follow the coaching instructions. This approach sounds more like good Pedagogy – teaching people who rely on teacher-centered learning. There are many practical reasons for this discrepancy. Collegiate level coaching is conducted under the mandate of running a successful program that (a) wins events, medals and championships, (b) attracts a continuous stream of new recruits and (c) increases retention. The team size is large and there are different specialties being coached in the same session. Practice times were restricted by Lindenwood University’s lack of owning its own pool, and the student-athletes stringent class schedules, general student related activities, and sociocultural challenges. Also, the team consists of individuals who are there with very different goals and levels of commitment. With these dynamics afoot, relying on self-directedness, use of learning contracts, trust, intrinsic motivation etc., may have its logistical limitations. However, given Coach Owen’s expressed desire to become a more learner-centered coach, he might consider incorporating the principles of transformative learning in his development as a coach. This notion suggests that “the adult learner is increasingly able to modify their frame of reference, examine assumptions, expectations, values, attitudes, and accept varying viewpoints” (Glancy & Isenberg, 2013, p. 23). Citing Cranton (2009), Glancy and Isenberg (2013) suggested that “transformative learning can happen inside and outside the classroom because it is less about how the educator learns and more about

how he thinks about learning” (p. 23). As Coach Owen attempts to reconcile the divergence between his belief in the principles and practices of andragogy, and the way in which he actually coaches, this concept of transformative learning may be of invaluable help to him.

Conclusion Two. A second important conclusion of this study is that there appears to be some general caveats to the application of Andragogy to sports coaching.

First, Andragogy may require genuinely older athletes for it to function at its best. Of the 39 survey respondents in this study, 36 were aged 18 to 22 with the other three being 23, 23, and 24 years old. These are therefore “young adults”, many of whom display a need to still be guided, closely instructed, and carefully led. Can it be that Andragogy, in its purest form, requires older adults – maybe, those over 30 and above? As discussed in Chapter Two, Andragogy has been successfully applied to different disciplines - doctoral academic programs; industry human resource development programs; life coaching programs like weight loss; even the Masters level swimming program – in all, participants were seasoned adults, hardened managers, people with a long portfolio of trials, failures, and successes. But in sports in general, peak years seldom go past age 30, and in collegiate sports, average ages are 18 to 23. So Knowles’ concept of the adult as being self-directing and self-sufficient, and capable of holding the old or existing knowledge, and adding to this knowledge in a compounding, creative fashion, does seem to suggest that the best results are likely to come from an older age group. Also, the PI believes that not everyone, even at age 30, is ready for Andragogy. Andragogy requires a desire for self-discipline and self-direction, and even as mature

adults, different personalities and experiences lead to different levels of desire for the attitudes and behaviors of andragogy.

Second, can it also be that Andragogy, in its purest sense, requires premier athletes, those with very competitive aspirations and physical, emotional, and mental readiness? In the literature review of Chapter Two, many references were made to coaching philosophies which embraced the spirit of Andragogy as the key to success. However, these persons were all coaches of elite athletes performing at the top of their games in the most extreme, competitive environments and many of whom were themselves elite athletes prior to coaching. Issues encountered by Coach Owen, of certain athletes who were content to relax at the middle, waste time and effort, or attempt to misrepresent the truth to the coach, were not even in contention. In a competitive university team, performances at conference meets, like final grades in a classroom, will tell which athletes were slacking off and which were not. However, the drawback of athlete-centered coaching with certain levels of extended freedom, self-direction, and even trust, is that the season's end will soon be upon all by the time the failure is ascertained.

A third caveat to applying Andragogy to the coaching of college sports rests on its applicability to individual-focused, versus team-focused, sports. The case study for this research was swimming and diving, a largely individual-focused sport, and no comparison to team sports was included. However, the idea of athletes deciding on what they need to learn, and majorly collaborating on how they will perfect this technique or that offensive or defensive strategy, appears inconsistent with a winning formula for a team-focused sport. For the two team-sports discussed in the literature review of Chapter

Two - soccer and basketball, there was a great deal of overlay with andragogical principles and practices in the philosophy of recognizing individual differences, treating each player as unique, and encouraging that inner motivation and goal setting. However, in the actual coaching methods, practices were organized around drills, shooting techniques, and defensive and offensive strategies with selected groups, all practiced under the strict guidance of the coach. Even in the two individual-focused sports, golf and swimming, while the great coaches reviewed in Chapter Two, all recommended greater self-direction principles, they conveyed the urgent and important need to employ specifics within a planned structure whether for training or for the competition – indeed, freedom within a structure. No effective coach can afford to leave the athlete to direct entirely his/her own course.

Conclusion Three. A third major conclusion of this study is that the greater adoption of andragogical principles and practices does not occur naturally, but that both coaches and athletes must be actively taught the assumptions and practices of this approach to learning. As recounted in Chapter Two, famed basketball Coach Krzyzewski (Coach K) stressed the need for continual learning by coaches and stated that coaches should set this as a priority. This has been the PI's total activism over his many coaching experiences. The PI believes, as with Coach K, that coaches need to be able to teach "old" things in new ways so as to successfully meet all emergent needs. Coaches should also have the understanding and receptiveness to allow new things to penetrate their style and knowledge base to grow with the educational times and cultural behaviors and peculiarities.

Coach K indicated that he grappled with how a successful coach gets better and recommended exposure to an array of new peoples, styles of play, coaching, and competitive situations. For Coach K, all these new experiences provided a wealth of knowledge but they also helped to build his confidence in himself as a coach. To learn more and experience other essential things, Coach K engaged in many activities outside of coaching that helped in his communication skills, his leadership abilities, and his greater understanding of people. He learned to factor feelings, experiences, education, concepts, and associations – FEECA, into his coaching. He stressed that, just as for the athlete, for the coach, continual learning was the key to self-discovery and the way forward to becoming a successful coach. Coach K also pointed out that a great percentage of learning came from his experiences with failures and defeats.

A great deal of the continual learning of how to implement Andragogy also revolves around learning how to communicate more successfully with all stakeholders. ‘Nothing is taught until that thing is caught.’ Too many times the speaker delivers, hoping that his delivery matches the deciphering abilities of the listeners. Whether as teacher, manager, parent, leader, or coach, the dispenser of information must recognize that the facts and content of what is being shared are going to be filtered through several layers of the recipients’ minds and their subjective understanding. As Andragogy is applied to sports coaching, both coach and athlete need to be mindful of these “filtration” truths as they exchange information. Also, in these days of rapid information flow and readily available electronic means of fact checking and looking up information, coaches need to be mindful of their athletes’ new rates of acquiring information. This may make teaching-learning more difficult, and coaches may be less impactful as they face a threat

to their ability to lead, gain attention, and retain followers. As for parents and teachers, the principles and practices of andragogy help coaches remember that the athlete will form his wings independently, and that the coach's job is to help him develop, soar, and glide into the freedom of self-discovery, self-branding, and self-actualization.

The principles and practices of Andragogy can be learnt through formal study and through personal reading and internalization. The athletes however, must also be exposed to and actively taught the assumptions and conditions under which the approach of Andragogy will be successful. Athletes need to be shown that the freedom of selecting their own practices to increase their skills and understanding, of learning from their peers and other resources, of being true to the essences of their learning contracts, etc., carry real responsibilities just as it presents tremendous opportunities. The starting point for the application of Andragogy for both the coach as well as the athlete, is a belief system. As pointed out by Henschke (2011)

Cooms (1966) in seeking to foster self-direction in human beings, asserted that mankind need to believe self-direction is important, trust that human organism is able to exercise self-direction, be willing to experiment with self-direction, and provide opportunity for self-direction to be practiced and learned. (p. 5)

The greater use of andragogy in sports coaching has to be learned, practiced, and improved upon with each season by all involved parties.

Conclusion Four. One of the most important conclusions of this study relates to the debilitating effects of stress and fear on learning. This is of particular significance in a sporting environment, and Andragogy offers tremendous benefits to counter this negative component. As stated by Coach Owen in his interview when comparing college coaching

to the coaching he did at summer youth camps, ‘adults deal a lot more with fear’ - fear for the athlete is generally associated with the fear of failure. He stated that he believed that as people got older, ‘whether because of anatomical issues, or mental hurdles, they develop a laundry list of excuses.’ This is one of the biggest pluses of Andragogy - how to maintain a very competitive, yet not be over-stressed, learning environment. As recounted in Chapter Two, Penick (1992) famed golf coach, discussed ‘the poison’ to an athlete of fear and stress. He stated, “imagine being on the range with club in hand and need to learn while under the stress of being watched and mentally graded” (Penick & Shrake, 1992, p. 71). Penick shared that while someone is under the stress of performing, any negative thought brought on by anyone but especially, the coach, is “pure poison” (p. 71). His overall message recommended that coaches allow the athlete the freedom to take what was given to him/her by the coach previously, and encourage and empower them to explore, experiment, and make self-driven calculations enroute to becoming the athlete they see themselves becoming – discovering new avenues and aspiring to increasingly higher levels. In this study of the Lindenwood University Swimming and Diving teams, 20 of the 39 (55%) student-athletes, completing the survey remarked that the training environment was one of high stress. These athletes claimed that the environment was, ‘too serious,’ ‘intense,’ ‘negative,’ ‘difficult,’ and ‘highly competitive.’ One SA stated, ‘stress isn’t really the right word here – it is more like pressure.’ Swimming at a college that participates in conference, regional, and national competitions tends to be very competitive (especially for those whose highest level is this college experience) and as Coach Owen is fond of telling his SAs – ‘fast is fun.’ However, if you are not hitting the mark, it can be very stressful and intimidating. Several SAs also mentioned that they

were training harder this year, with their new running component and that Coach Owen continually ‘raised the bar.’ As outlined in Chapter Two, as the numerous stories of great coaches and greater players were mirrored to the basic principles of Andragogy, there was no goal of mediocrity, or not feeling pressure to perform at the top of one’s game, but there was the freedom to practice without stress and fear. This was seen in Kapp’s 1833 work as adult learning led the way for the German people to cope with the challenges of reconstructing their lives, and in the work by Rosenstoch-Hussey, another German who posed Andragogy as the only method for the German people and Germany, dispirited after World War 1, to regenerate themselves and their country. Later, in Lindeman’s 1926 writing about what he had seen in the Danish “peoples” colleges where adults studied for the purpose of making life easier, more productive, more enriching, and more rewarding, the goal of excellence did not require stress and fear. In 1970, when Malcolm Knowles wrote his first edition of *The Modern Practice of Adult Education* where the six assumptions about the adult learner and the eight processes of Andragogy were detailed, stress and fear had no part in Andragogy. If Coach Owen would therefore adopt a more andragogical approach to his coaching, the stress and fear may be diminished, and even eliminated, even as the student-athletes strive for greater excellence.

Conclusion Five. A fifth major conclusion of this study relates to the Modified Instructional Perspectives Inventory (MIPI) instrument. This study found that the MIPI with its seven factors, based on ‘beliefs, feelings, and behaviors’ of educators of adult learners, is a good tool to assess the use of andragogical practices. Also, that it can be used to see how well a coach’s perspective of himself aligns with the perspective that his

athletes have of him. However, based on the findings of this study, it would appear that there are several important areas that seem to have not been directly measured by this instrument. The MIPI, with the 45 questions that produce a score for each of Henschke's seven factors that define andragogy was completed by Coach Owen, as well as 39 members of his team. Results from all the other data collection methods, including the one-on-one interview, the poolside observations, the questionnaire and focus group completed by the athletes, all support the scores calculated for each of the seven factors. This is a testament to the validity of the instrument. Also, on all seven factors, the average scores given by the student-athletes were remarkably similar to the score Coach Owen gave himself. However, a review of the 45 questions suggested that there are five aspects of andragogy that could be added to the MIPI to enhance its effectiveness as an assessment instrument. These were seen to be very important to the student-athletes, yet these aspects were not explicitly and sufficiently represented in the MIPI.

The following are the five suggestions for inclusion in the MIPI:

First, treat all members of the team equally - This issue of perceived inequality of treatment, or favoritism, came up several times in this study. Certain SAs perceived that Coach Owen did not give of his time equally to each of the three 'event' groups, and others commented that he appeared to never choose them for demonstrations, or discuss their progress, or freely come up to them to talk, as he did to 'his favorites'. This issue did not seem to be a figment of the athletes' imagination since even in the one-on-one interview with Coach Owen, his obvious admiration and apparent preference for his star swimmer and the others who displayed the greatest commitment, were evident. This issue

of the treatment of a star athlete is a common controversial issue in sports coaching and its effects on the rest of the team should be taken into account.

Second, ask for feedback from the students-athletes more frequently - while the MIPI did attempt to measure the openness of the coach to the involvement of the athlete and accommodating athlete uniqueness, this study seemed to indicate that the SAs felt that if Coach Owen had asked for more feedback from them, as to how helpful the practices were and how they could be made more effective, they would have each personally benefitted more. As recounted in Chapter Two in the discussion of coaching in the sport of golf, McLean (1999) stressed the fact that golfers learn in different ways. He stated that at his academy, he did not teach a strict system but left a great deal of room for individual differences. McLean believed that not everyone will fit into the same golf swing, and he encouraged both teacher and learner to interact more freely in giving and receiving information and openly discussing what worked and did not work. Maybe, a few more questions in the MIPI regarding student-learners' input could help address this andragogical aspect.

Third, show interest in the lives of the athlete outside of the pool - this sentiment was hinted at in many aspects of this study but was made more stark by the story of the athlete who talked about how committed he was to the team and his coach because of the great support Coach Owen had been to him last season when he was in the hospital. In a real and important sense, this factor is different to that of empathy, or trust, or even sensitivity, asked in questions 43, 44, and 45 of the MIPI. In a very precise sense, it spoke to the sense of goodwill that athletes feel when they believe that the coach is interested in them as a person and in their holistic well-being, independent of the sport. As discussed

in Chapter Two, Hanson (2013), citing a study of a team-focused sport – football, as well as the coaching of all sports in the 2008 Canadian Beijing Olympic Teams, concluded that “the most significant contributor to a medal winning performance or a personal best performance is a strong, high quality, coach-athlete relationship” (p. 4). He also produced data showing that phenomenal coaches “focus not only on the technical and physical aspects of the athlete, but see the athlete as a ‘whole person’ with a life outside of the sporting environment” (p. 6). And the great golfer, Nicklaus (2005) stated,

many coaches could teach the few key fundamentals, but what stood out in his coach, Jack Grout far beyond his teaching and fine-tuning of the mechanics, was the degree of personal interest and overall care and concern he demonstrated in me as a person. (p. 277)

This commitment was observed in the huge amount of time and energy that Grout gave so generously and graciously over many years to Jack Nicklaus, both in his game and his life apart from the sport.

Fourth, create a non-stress learning environment - as discussed in conclusion three, this proved to be one of the most talked-about issues by the student-athletes in this study. Many noted that their practice sessions were ‘too serious, too intense, and too high-pressured.’ Many thought that by ‘continually raising the bar’ Coach Owen made the practices very stressful. The implication was that with less stress they might be able to learn and perform better. The MIPI did not seem to specifically address this component though the points under empathy and sensitivity did knock on such a door. This research suggested that the inclusion of specific questions on this aspect may help to better assess a commitment to andragogy.

Fifth, constantly encourage student-athletes - Many of the student-athletes stated that Coach Owen was empathetic and told them that he knew how hard the early morning practices were, and how demanding the schedule was with all their studies, personal issues, etc. There were also questions about whether or not Coach Owen acknowledged the positive changes in them, whether he balanced his efforts between teaching content and motivating, and whether he expressed appreciation to those SAs who actively participated. These questions make an input to the factor of empathy, which is well measured in the MIPI. However, from this study it became evident that when student-athletes talked about encouragement, they saw it as different to empathy. They wanted acknowledgement, praise, everything to promote positive self-esteem, constant and repeated encouragement. They wanted their coach to see the glass as half full rather than half empty. Because student-athletes saw this as such an important dimension, the inclusion of more specifically worded questions on the MIPI may help more accurately assess the employment of andragogy.

Conclusion Six. The sixth important conclusion of this study is that a Learning Contract (LC) an important tool in an andragogue's "briefcase" in the classroom, can also be an effective tool in sports coaching. Particularly in the coaching of individually-focused sports like swimming and diving, golf, tennis, etc., the use of Learning Contracts can offer greater freedom, accountability, and involvement in the coaching process, all of which can lead to improved and sustained performances. During the interview session, Coach Owen reported that he had a "goals-meeting" with each of his SAs twice a year. He stated that oftentimes they would write down their goals and that he would sometimes refer back to those goals at the end of the season. After being given a "little" tutorial on

Learning Contracts, Coach Owen stated that he thought that he could use it to enhance and make more effective the goal meetings. He also stated that during practices, a common retort from his athletes about most anything, was, “is this optional or mandatory?” He said that he thought the Learning Contract with its detailed approach, could provide their answer to this repeated question. What had to be emphasized to Coach Owen was that, the LC was not a, leave-alone-with-the-athlete project, not one to be visited only “twice” each season. Rather, it was stressed to the Coach that it was an ongoing, interactive and integrative tool. Coach Owen was reminded that the LC was a partnership instrument designed for frequent collaboration between the coach and athlete and a possible other involved member, maybe, the athletic trainer or regular club coach. It is aimed to have sufficient enough regrouping by the parties to discuss the progress and hash out difficulties or reconfigure strategies to accomplish the set goals by the stated timelines. The LC is as much an independent, self-directed tool as it is a collaborative, team project – the more mature the athlete, the less might be the need for regular team meetings. Face-to-face meetings between the LC’s partners can be substituted with phone calls and electronic means for more mature and self-directed student-athletes.

Coach Owen expressed an eagerness to further explore the dynamics of the LC and thought that because the season is rather short, a Learning Contract would push more organization and responsibility onto the athletes and help their training have a greater meaning and produce better outcomes. It was also shared that a Learning Contract can prove to be very effective for the physical fitness elements of individual as well as, a team-based sport. The potential for Andragogy, with all of its tentacles, in sports coaching is therefore very real. However, at the college level, where there is a great

diversity in the aspirations of the student-athletes towards the sport, there may be limitations to this potential. Also, the seasonal nature of a college's sports calendar can disrupt the continuity of the building block benefits of this andragogical approach. Fortunately, the Swimming and Diving programs at Lindenwood University, despite being cited as "rather short," is a two-semester sport, something that most other sports are not. Student-athletes who see a career and future in their sport will more readily adhere to the rigors of their self-imposed, coach-facilitated Learning Contract.

Conclusion Seven. It is in this conclusion that the results of this study lend fullest support to the very strong link between Andragogy and sports psychology, but establish that the methods of Andragogy are unique and separate. As outlined in Chapter Two, some of Andragogy's earliest roots stemmed from the 1928 work of psychologist Edward Thorndike whose views on connectionism and comparative psychology helped forge his approach on the adult's capacity and ability to learn. As the body of the discipline of Andragogy developed, largely through the work of Malcolm Knowles, the links between the principles of the new discipline and the existing discipline of sports psychology were often discussed. The power of the mind is undeniable, and psychological techniques such as simulation, visualization, and mental rehearsal are very much used in successful sports coaching. As Auerbach, in *Bird* (Bird & Biscoff, 1983), shared about the iconic basketball player, Larry Bird, stated, "he is the best-motivated athlete I have ever seen" (back cover). He talked about Bird's self-directedness and self-motivation to learn. Sports psychologists dream of athletes like Larry Bird, but they are the exception. Andragogy rests on the adult's efforts, motivated by visible, practical, and personally meaningful results, and it is therefore understandable to see the similarities with sports psychology.

However, the hallmark characteristic of Andragogy, more than just developing mental power, is found in its connection to the adult's existing knowledge - 'experiences, education, feelings, concepts, and associations.' This knowledge makes the adult certain of what information is beneficial to him/her, and provides the freedom to acquire new knowledge through his/her own self-directedness. Andragogy is much more than psychology, in the classroom as well as in sports.

Conclusion Eight. Finally, this study concludes that the art and science of coaching adults, under the umbrella of the accepted principles and practices of Andragogy, has given rise to a new field of research: Athlitigogy, thanks again to the PI's Qualitative Research professor, Dr. Stephen Sherblom. Initially, discussions between Dr. Sherblom and the PI gave rise to the term/idea of, Coachagogy, but later decided on a replacement term, "Athlitigogy", from Athlitis, Greek for athlete. This term is designated for coaches who use andragogical principles and practices in their coaching methods and is defined by the PI as the art and science of helping athletes learn, by increasing their cognitive, affective, psychomotor, and social, servant leadership, and spiritual skills and abilities (CAPS). With the term Athlitigogy, one thing becomes certain and consistently true for and successful athlitigogue and that is, that the principles and practices must resonate in the coach's heart after the notion had been intellectually and intelligently conceptualized and accepted in mind.

More than just mental training and sport psychology, more than just replacing coach-centered instruction with athlete-centered instruction, Athlitigogy first seeks to recognize the athlete as a unique learner who, in an environment of trust and respect, can enjoy an open, co-learning experience with his coach in a much more intimate way. The

PI suggests that given all of his personal experiences and expansive number of 45 minutes to four-hour classroom “congregations,” 99% of which were, in on-the-ground, face-to-face settings, he is able to sincerely suggest that Athlitigogy, a child in the making of, Andragogy, has a bright future in the teaching and learning of sport. The PI’s classroom learning has been a journey through many levels of schooling, and in several countries. The PI himself was also an elementary, middle, and high school teacher and as well as, an adjunct professor at the tertiary level. The PI has also been heavily involved in playing sports and coaching soccer at all levels, and strongly believes that, “coaching is the purest form of teaching” (as recalled by the PI in a personal communication while attending a coaching conference in Canada hosted by the Canadian Soccer Association in September, 1991). All throughout the PI’s journeys and accomplishments he could hardly recall any case where academic associations were stronger than those that came from sports.

This research concludes that a coach-athlete relationship that is built on the principles and practices of andragogy with its co-learning and push-pull mechanism, will optimize athletes’ potential and maximize their results. This study of the Lindenwood University Swimming and Diving coach and team members is strong support for viewing Andragogy as a win-win formula for coaching. As a long-standing soccer coach, the PI has a deep personal interest in this conclusion. The PI has coached soccer in Trinidad & Tobago, Canada, and the USA at the levels of World Cup (national senior team), Olympic (national U-23), National U-20 and National U-17, as well as at the Ontario Provincial (ages 14 to 18), and Mississippi ODP State Head Coach (ages 8 to 19). Granted, all of these involved the coaching of top-level, elite athletes, but the PI has also

coached at the college level, and high school level programs, where the mix of interests and abilities more parallel this Case Study. The PI has taken many coaching courses and is the holder of the highest coaching certificate of the English Football Association, the Canadian soccer Association, and the U.S. Soccer Federation. More than this, the PI is forever a student of the game, constantly seeking new philosophies and practices that will produce the best outcomes for teams and their members. The PI believes in a coaching philosophy that allows 'freedom within a structure' (Hannibal Najjar, personal communication, August, 1994). The freedom allows each person, with his/her uniquely physical, psychological, emotional, and physiological skills and abilities, to be him/herself in any given system, situation, or structure and to stand ready, confident and humble, to perform admirably at any level.

The fundamentals of Andragogy provide the platform for Athlitigogy, but the latter has the added advantage of not only nurturing the cognitive and psychomotor, but, increasingly so, the affective and the social. This is so because, in nearly all situations, both coach and athlete have an undying love for the sport and each feeds off the other to drive to higher heights. Both parties know that it requires hard work centered on knowing one's strengths and weaknesses, and seizing every opportunity for improvement. Andragogy has been a mega addition to adult learning and teaching in academic, organizational, and other administrative settings, and it has now given birth to, maybe, the purest form of teaching, Athlitigogy. This new concept recommends the use of all andragogical principles and as many as are needed of the pedagogical to help build and crystalize its own artillery of ideas and coaching principles. Figure 1 depicts the idea of

Athlitigogy being born of Anrdagogy and blended with Pedagogy and sets the stage for the diffusion of this innovation/idea.

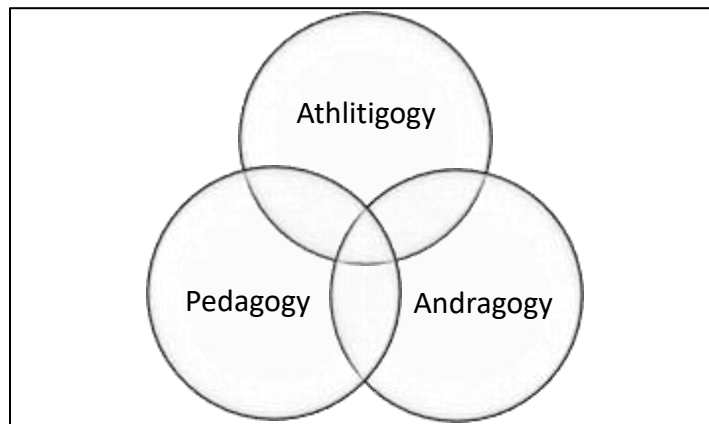


Figure 1. The birth of Athlitigogy.

Also, whether one is talking about Pedagogy, Andragogy, or Athlitigogy, the teaching of the child, adult, and athlete respectively, there needs to be a heightened awareness by the coach/teacher to keep sharpening his/her skills and abilities if they are to successfully meet and keep up with the ever-renewing needs of their respective audiences.

Recommendations for Further Research

This research looked at one sport program, in one university, in one intercollegiate athletic association, to ascertain if the coach utilized the principles and practices of Andragogy in his coaching. It also examined the perceptions of the coach, and those of the student-athletes as to the coaching methods most commonly used, compared to the seven factors of Andragogy as espoused and measured by the instrument created by John Henschke, referenced in his 1994, 45 point IPI later modified in 2005 by Stanton (Jones-Clinton, 2011, p. 51) hence, the term, Modified Instructional, Perspectives Inventory – MIPI. Further research is needed to look at a greater number of universities and sports. In particular, studies that examine coaching methods at more competitive

NCAA Division I programs, are needed. It is at this level that most student-athletes recognize that this is their escalator to the professional and highest-level ranks. Those student-athletes that see a career and future in the sport may more closely adhere to all that Andragogy offers because of two main reasons – 1. They sense where they are not, where they want to be, and know that they desire to be better, achieve more and go further and 2. They are willing to put everything in their midst, second to this first goal. These are the student-athletes who will try everything, including the tools offered by andragogically inclined coaches. They are more likely to better understand the benefits and workings of self-directed learning and the use of the complementary, learning contract. They may realize that together with their belief in self, and their individualized pursuit of excellence, they have a great deal to gain by availing themselves of all that the coach offers. In smaller, less competitive universities, like Lindenwood University, the type of student-athlete, together with the quality of the program, may not align to the focus that larger, more pro-readying schools offer.

Another important future-research recommendation of this study, entails the development of the term, ‘Athlitigogy’ discussed in conclusion eight. Further research is recommended to investigate if andragogical principles and practices can be effectively applied to the coaching of even, those younger than college student and early adults (20-40 years old), thereby, expanding the scope of Athlitigogy to all ages. By following in the footsteps of Andragogy, it is being understood that athlitigogy has automatically embraced middle (40-65), and late (65 and over) adults.

The works of Thorndike (1928) and declarations of Nicklaus (2005) who gave the pros and cons of the younger and older learners and athletes come in as a timely

reminder that age is not an inhibitor for learning, but can be seen to be an awesome strength. Also, the work of Callaghan (2010) whose future studies' recommendations included using adults and non-adults, supports the PI's contention that Andragogy's principles and practices can be utilized in younger-than-adult situations. Callaghan suggested that using adults and non-adults in future studies might "reveal a more positive reception of andragogical methods with older students as well as measure Andragogy's effectiveness with younger students" (p.128).

The recommendation to consider Athlitigogy as a new art and science of "coaching" is based on the earnest belief that the relationship between coaches and athletes is more intimate and familial-like and that athletes in general tend to more freely give of themselves to their sport than to, academics or the workplace. The nature of the teacher-student classroom relationship is different to the relationship between coach and athlete. Coaches appear to more greatly 'own' the time and attention of their athletes, exchange more heart-to-heart issues, and build stronger relationships. Coach K (2000) explained in his words the dire concern that he has in his heart for his student-athletes' welfare when he urges them to see themselves through his eyes – the way he is seeing them. He petitioned, "I want all the players on our team to see themselves through my eyes. I want them to know how they really are, not just how they think they are" (p. 91). This way 'they can internalize what's best for them in this, outside-of-the-body caretaker experience' (p. 91). The PI loves assuring his athletes and students that his care and love for them supersedes their understanding and that he wants them to know that his decisions are always in their best interest and made with their whole personhood in mind. He always urges them in various versions to,

trust me, I will never lie to you or put you to do something that you are not ready for; I will never embarrass you; trust me until you are able to realize and self-actualize what I am saying about you. At that point, you will better understand encouragement and thence, gain trust in yourself.

Therefore, with further research of this nature and for the edification of coaches in Andragogy, the application of the principles toward athletes in training could require a more specific term than Pedagogy or Andragogy. Further research into the applicability and effectiveness of the principles and practices of Andragogy in coaching sports at all age levels, at all levels of competition, and in all kinds of sports, is eagerly needed and represents an exciting time for educators and coaches alike. Included in this ‘picture’ must be the need to encourage the learners, adults and non-adults alike, to see the benefits of understanding the concept and functioning of the term, Athlitigogy. Learners should be encouraged to simultaneously embrace what this term implies; that they need to know and do so in order to hasten its acceptance and application – with both, educators, whether coaches, teachers, or managers of organizations, and learners, whether adult or non-adult, working together and in a harmonious and continuous, push-pull pendulum fashion, the most positive and effectual results will be achieved.

Closing Remarks

The PI’s closing remarks are drawn from two authors, wide apart in years. First, Khalil Gibran (1972), an amazing Lebanese-American philosopher and poet, shared, “we are the archers and bow bearers, from which the arrows, our children will go to where we aim” (p. 20). The coach is the archer. Allegorizing, Gibran stated,

The archer sees the mark upon the path of the infinite, and he bends the bow with his might that his arrows may go swift and far. Let the bending in the archer's hand be for gladness; for even as he loves the arrow that flies, so he loves also the bow that is stable. (p. 23)

The second author is Bach, writer of the delightful “Jonathan Livingston Seagull.”

Jonathan’s journey from a ship mongering, contemptible, fish-scrap eating seagull to becoming an all-flight (high, wing-tucked fast flying falcon, and sharp-eyed and gliding eagle) heaven-reaching master learner and teacher, is nothing short of inspiring. Jonathan was the epitome of the self-directed learner applying all the principles and practices of Andragogy. Kapp, Lindeman, Rosenstock-Huessy, Knowles, Savicevic, Wlodkowski, Henschke, Isenberg, and a host of other stalwart andragogues would be elated by Jonathan’s story and Bach’s teaching-learning andragogical-like portrayal. Jonathan combines hard work with visual constructs, self-imposed, facilitator-student learning contracts, all powered by, strong, envisioned, and purposeful self-motivation. He allows himself to be guided by the all-wise Chiang, the wisest, transcendental gull ever and develops a strong coach/teacher-athlete relationship. All of the concerted teaching-learning led Jonathan himself to develop the art and science of helping other younger gulls, like Fletcher Lynd Seagull, learn. Jonathan understood the need to continue the process and favors abundantly given him by his teacher/coach, Chiang. All this came at the heels of rejection by his gull family and orders of the Elder, to, “stand to center” which was either, “for great shame or great honor in sight of your fellow gulls”. Jonathan’s was for the former all because, Jonathan broke with the traditions of the gull’s lifelong mewing and “keowing” calls and fish-scrap eating lifestyle. He was charged with

“violating the dignity and tradition of the Gull Family” (Bach, 1970, p. 24). What this aspiring “student-athlete” gull, Jonathan, accomplished was a breakthrough for gulls to see a life far beyond what they had been living from the start of time. In his humility, before he learnt that his call to center was for shame and not, honor, he internalized, “I want no honors; I want only to share what I have found, to show those horizons out ahead for us all” (Bach, 1970, p. 24). Jonathan’s self-directedness led him to heights that were rarely accomplished by any bird, let alone, gull of his time. His sadness came as he displayed his resolve to be independent of the customary, teacher-centered, rule-espousing leadership that the Elders of the gull community demanded. Not dismayed, Jonathan soared into a new horizon of learning and teaching that would only bring standing ovations and endless applause from any andragogue, and now, coachagogue, given the revelations of this study. The lives of Bach’s athlete-gull, Jonathan, and Gibran’s (1972) metaphorical message of the archer with his bow, and, the arrow (student-athlete/child) provide excitement for the future of the art and science of helping adults and, athletes, of all ages, learn. A steady, sincere archer is only asking that, the athlete/student/child, work to ensure precision-like straightness and uniformity so that, together, parent and child, coach and athlete, and teacher and student, can hit the mark – the task demands a together-focus and effort.

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Appendices

Appendix A



April 18, 2016

Dear Hannibal Najjar,

I have received your request to utilize Lindenwood University student-athletes and coaches as part of your proposed Dissertation study, "An Investigation Into the Use of Andragogical Principles and Practices for Coaching Collegiate Student-Athletes- The Case of Lindenwood University."

I am granting permission for you to make contact with our coaches and student-athletes for the purpose of securing relative information and data beneficial to the research and the writing of your Dissertation.

John Cræer

A handwritten signature in black ink, appearing to read "John Cræer", is written over a horizontal line. The signature is fluid and cursive.

Director of Athletics

Lindenwood University

Appendix B

From: **Creer, John** <JCreer@lindenwood.edu>
Date: Thu, Apr 21, 2016 at 6:18 PM
Subject: Introduction
To: "bwachler@gmail.com" <bwachler@gmail.com>
Cc: Hannibal Najjar <hannibal.najjar@gmail.com>

Brad,

I wanted to introduce you to Hannibal Najjar and advise you of an arrangement that I have made with him. Hannibal is a good friend (his wife is a professor at Lindenwood) who is getting ready to do his doctoral dissertation on the subject of, "An Investigation Into the Use of Andragogical Principles and Practices for Coaching Collegiate Student-Athletes – The Case of Lindenwood University." I have granted permission to Hannibal to contact our student-athletes and coaches for the purpose of securing relative information and data to the research and the writing of his dissertation. Hannibal wanted me to also express to you his desire to meet with you after your official start date at Lindenwood.

I hope things are going well for you as you prepare for the transition from Central Michigan to Lindenwood. If there is anything I can do to assist you, please don't hesitate to let me know.

John

Appendix C

April 25th, 2016

Dear Hannibal Najjar,

Based on the authorization of the Athletics Director, I am granting permission for you to use the Lindenwood University's Men and Women's Swimming Programs to conduct your ED. D Dissertation study. I understand that this study will commence in the Fall 2016 Semester and will involve the collection of data using, Interviews, Observations, Filming, Surveys, Questionnaires, and Focus Groups of both, the coaches and student-athletes.

Jason Owen

Head Coach
Men and Women's Swimming Programs
Lindenwood University

Appendix D

CONSENT TO PARTICIPATE FORM – INTERVIEW AND OBSERVATION OF COACH

LINDENWOOD

INFORMED CONSENT FOR PARTICIPATION IN RESEARCH ACTIVITIES

“An Andragogical Exploration of a Collegiate Swimming Diving Coach’s Practices and Principles at Lindenwood University: A Case Study.”

Principal Investigator: *Hannibal Najjar* - Telephone: 636-579-0232 E-mail: hnajjar@lindenwood.edu

1. You are invited to participate in an **Interview and Observation (Coach)** conducted by *Hannibal Najjar* (under the guidance of *Dr. John Henschke - Dissertation Chair*), as part of the research work on the above Dissertation topic. The purpose is to investigate the link between Andragogy and Coaching of the Student-athletes of the Men and Women’s Swim/Dive Programs at Lindenwood University. More specifically, the Study will explore (i) To what extent, if any, does the Coach of the LU Men and Women’s Swim/Dive Programs practice the principles of Andragogy in his coaching? (ii) To what extent, if any, does the coach of the LU Men and Women’s Swim/Dive Programs perceive that he practices the principles of Andragogy (using Henschke’s (1989) Modified Instructional Perspectives Inventory (MIPI))? (iii) To what extent, if any, do the student-athletes of the LU Swim/Dive Programs perceive that the coach practices the principles of Andragogy (using Henschke’s (1989) Modified Instructional Perspectives Inventory (MIPI))? (iv) What is the comparison between the coach’s perception and those of the student-athletes regarding the extent to which he practices the principles of Andragogy?
2. Your participation will involve:
 - An open discussion of questions related to the above topic
 - The amount of time involved in your participation will be: 2 sessions 1-2 hours each
 - 6-8, once-per-week, Observation sessions including audio recording
3. Your participation is voluntary and you may choose not to participate in this research study or to withdraw your consent at any time. You may choose not to answer any questions that you do not want to answer. You will NOT be penalized in any way should you choose not to participate or to withdraw.
4. By participating you understand that you are the only coach being interviewed and as such this gives the risk of identification.
5. There are no direct benefits for you participating in this study. Note, your participation will contribute to the knowledge about Andragogy and may help improve athletic coaching practices and principles and student-athlete performances
6. If you have any questions or concerns regarding this study, or if any problems arise, you may call the Investigator, *Hannibal Najjar* at 636-579-0232 or the Supervising Faculty, *Dr. John Henschke* at 636-949-4590. You may also ask questions of or state concerns regarding your participation to the Lindenwood Institutional Review Board (IRB) through contacting Dr. Marilyn Abbott, Provost at mabbott@lindenwood.edu or 636-949-4912.
7. Participant’s Email information

I have read this consent form and have been given the opportunity to ask questions. I will also be given a copy of this consent form for my records. I consent to my participation in the research described above.

Participant's Signature Date
Name

Participant's Printed

Signature of Principal Investigator Date
Name

Investigator Printed

Appendix E

INTERVIEW SCRIPT - COACH

LINDENWOOD

An Andragogical Exploration of a Collegiate Swimming and Diving Coach's Practices and Principles at Lindenwood University: A Case Study.

Principal Investigator: *Hannibal Najjar* - Telephone: 636-579-0232 E-mail
hnajjar@lindenwood.edu

Background as a Swimmer/Diver

1. Were you ever a competitive swimmer?
2. If you were a competitive swimmer, for how long has that been?
3. What is the highest level that you participated at?
4. When was your last competitive swim event?
5. What are your best and worst memories as a competitive swimmer?
6. What are your best and worst memories in a competitive swim event?

Coaching Background and Information

7. How long have you been coaching?
8. How long have you been coaching University student-athletes?
9. What is the highest level of coaching that you were involved in?
10. Have you coached, and do you still coach pre-adult competitive swimming athletes?
11. Have you coached, and do you still coach pre-adult recreational swimming athletes?
12. Have you coached, and do you still coach adult recreational swimming athletes?
13. Have you coached, and do you still coach adult and maybe, Masters swimming athletes?
14. If any, what are the differences between coaching the pre-adult and adult athlete?
15. If any, what are the differences between coaching competitive and recreational athletes?
16. If any, what are the differences between coaching competitive and recreational pre-adult athletes?
17. If any, what are the differences between coaching competitive and recreational adult athletes?

Aspects of Coed Coaching

18. As coach of both men's and women's swimming programs, have you had to make changes in your coaching philosophy and style?
19. Do you coach both male and female squads together?
20. If there is any simultaneous coed coaching, how do you logistically and ergonomically manage?
21. If the coaching for men and women is done separately, what would be the reasons?
22. If the coaching for men and women is done separately, how do you manage time and facilities, record keeping and monitoring, other critical coaching-learning accountability dynamics?
23. If the coaching for men and women is done together, how do you manage time and facilities, record keeping and monitoring, other critical coaching-learning accountability dynamics?
24. Do you provide guidance to your athletes as often as you perceive their need? In other words, is the saying "seize every opportunity as a teaching moment" apply to your coaching philosophy and style?
25. To what extent do you give your athletes the freedom to research and determine what they learn and incorporate in training and preparation, whether on their own and/or while in your midst?
26. Have you found it useful and practical to give your athletes "homework" assignments (between sessions and from item to item, and also out-of-session and season) where the content and context are determined between the two of you and a possible third part, namely, an off-campus and responsibly qualified person/coach? SDL?
27. Do you find yourself utilizing the strategic, stylistic, and philosophical coaching policies and practices as employed by your previous coaches?
28. What are the takeaways from those "interludes" with your past coaches?
29. Do you believe you have experienced or recall times when past coaches were either coached-directed or student-athlete-centered or both, during their coaching sessions and seasons?
30. Tell me how similar or different you are as a coach from your least and most favorite coach when you were an athlete?
31. To what do you lay claim for those similarities and differences?

Coaching Style

32. How would you describe yourself? Please list one or more of the following coaching styles that you customarily employ with your student-athletes.
 - a) Instructional _____
 - b) Socratic (Q&A)? _____

- c) Guided Discovery? ____
- d) Peer Sharing/collaborative? ____
- e) Self-discovery/independent? ____

33. It is often said that **“Trust is the one thing that changes everything”** (Covey, 2006). How much of what you do and expect of your team members and yourself are hinged heavily on trust?

34. How much freedom are you prepared to give your student-athletes to be able to judge what their needs are and to train those needs independently?

35. A decade or so ago, I began employing encouraging my athletes to exercise freedom by being themselves while training and performing in competition, but all of which are to operate with a given structure and set of expectations – do you believe that this is workable?

Yes ____ No ____

If yes, do you employ this methodology in your coaching of the student-athletes?

Yes ____ No ____

36. And if you do employ the methodology of allowing your student-athletes to exercise freedom with the given structure, do you employ this process with all of your student-athletes throughout the four classifications - Freshmen through Seniors?

Yes ____ No ____

37. Are you aware of the use and validity of a Learning Contract, LC?

Yes ____ No ____

(An LC is a device that brings together all stakeholders in assembling a planned program for the student-athlete. This LC begins with agreed-upon goals written for the student-athlete and endorsed by all facilitating parties, for which the student-athlete will then carry out over a stipulated period of time. Over the course of the LC frequent meetings will be held by all parties or between any combination, to review and revise if needed. A finishing date is provided and this process of dialogue and consultation will continue until the goals are accomplished.)

38. If you are aware of LC's, do you use it?

Yes ____ No ____

Appendix F

Part A: Customized MIPI Survey

Think of the Entire Time You Have Been Swimming and Diving Coach and Complete the Following MIPI

Modified Instructional Perspectives Inventory (Coach)

Observation of Coach’s Self Reflection

Modified Version of John A. Henschke (1989)

Listed below are 45 statements reflecting beliefs, feelings, and behaviors that coaches of adults may or may not possess. Please reflect on your semesters as Coach and circle the letter that best describes your observations and experiences.

How frequently do you (Coach Owen):

1. Use a variety of coaching techniques?
2. Use buzz groups (student-athletes placed in small groups for discussion)?
3. Show that your primary goal is to provide student-athletes as much information as possible?
4. Show that you are fully prepared to coach?
5. Recognize having difficulty understanding the athletes viewpoint?
6. Demonstrate acceptance of student-athletes’ frustrations as they grapple with problems unique to them?
7. Purposefully communicate to student-athletes that each person is uniquely important?
8. Express confidence that athletes will develop the skills they need?
9. Search for and create new coaching techniques?
10. Coach through simulations of real-life (coach parabolically)?
11. Coach exactly what and how you have planned?
12. Notice and acknowledge positive changes in student-athletes?

	Almost Never	Not Often	Sometimes	Usually	Almost Always
1.	A	B	C	D	E
2.	A	B	C	D	E
3.	A	B	C	D	E
4.	A	B	C	D	E
5.	A	B	C	D	E
6.	A	B	C	D	E
7.	A	B	C	D	E
8.	A	B	C	D	E
9.	A	B	C	D	E
10.	A	B	C	D	E
11.	A	B	C	D	E
12.	A	B	C	D	E

13. Have difficulty getting your points across to student-athletes?

How frequently do you (Coach Owen):

	Almost Never	Not Often	Sometimes	Usually	Almost Always
14. Acknowledge that your student-athletes vary in the way they acquire, process, and apply new or refined knowledge?	A	B	C	D	E
15. Really listen to what your student-athletes have to say?	A	B	C	D	E
16. Trust your student-athletes to know what their own goals, dreams, and realities are like?	A	B	C	D	E
17. Encourage your student-athletes to solicit assistance from other student-athletes?	A	B	C	D	E
18. Demonstrate impatience with your student-athletes' progress?	A	B	C	D	E
19. Balance your efforts between coaching content and motivating?	A	B	C	D	E
20. Try to make your presentations clear enough to forestall all student-athletes questions?	A	B	C	D	E
21. Conduct group discussions?	A	B	C	D	E
22. Establish instructional objectives?	A	B	C	D	E
23. Use a variety of instructional media? (Internet, distance learning, interactive video, videos, audio, etc.)	A	B	C	D	E
24. Use listening teams (learners grouped together to listen for specific purposes) during discussion in classroom sessions	A	B	C	D	E
25. Show confidence that your coaching skills are refined and clear?	A	B	C	D	E
26. Express appreciation to your student-athletes who actively participate?	A	B	C	D	E
27. Experience frustration with your student-athletes' apathy?	A	B	C	D	E
28. Prize your student-athletes' individual ability to learn what is needed?	A	B	C	D	E
29. Feel your student-athletes need to make aware and communicate their thoughts and feelings?	A	B	C	D	E
30. Enable your student-athletes to evaluate their own progress in learning and performances?	A	B	C	D	E

How frequently do you (Coach Owen):

	Almost Never	Not Often	Sometimes	Usually	Almost Always
31. Heed to what your student-athletes indicate as their coaching/learning needs?	A	B	C	D	E
32. Demonstrate awareness of the difficulty of skills being learnt by giving your student-athletes the time they need to understand those concepts?	A	B	C	D	E
33. Promote positive self-esteem in your student-athletes?	A	B	C	D	E
34. Require student-athletes to follow the precise coaching instructions you provide to them?	A	B	C	D	E
35. Conduct role plays?	A	B	C	D	E
36. Demonstrate insensitivity/boredom when student-athletes ask questions excessively?	A	B	C	D	E
37. Individualize the pace of coaching for each of your student-athletes?	A	B	C	D	E
38. Help student-athletes explore their own abilities?	A	B	C	D	E
39. Engage your student-athletes in clarifying their own aspirations?	A	B	C	D	E
40. Ask the student-athletes how they would approach a given task?	A	B	C	D	E
41. Demonstrate irritation at student-athletes' inattentiveness in the coaching setting?	A	B	C	D	E
42. Integrate coaching strategies and techniques with subject matter content?	A	B	C	D	E
43. Develop supportive relationships with your student-athletes?	A	B	C	D	E
44. Exhibit unconditional positive regard for your student-athletes?	A	B	C	D	E
45. Demonstrate respect for the dignity and integrity of your student-athletes?	A	B	C	D	E

Instructor’s (Coach’s) Perspectives Inventory Factors

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	4]	7]	1]	6]	5]	2]	3]
	12]	8]	9]	14]	13]	10	11]
	19]	16]	22]	15]	18]	21]	20]
	26]	28]	23]	17]	27]	24]	25]
	33]	29]	42]	37]	32]	35]	34]
		30]		38]	36]		
		31]		40]	41]		
		39					
		43]					
		44]					
		45]					
TOTAL							

Scoring Process

Taking the A-E scores from the numbers of the 45 Statements, use the following numerical conversion

for A-E and place that value alongside the respective statement number. Reversed values are in **RED**.

a. A=1, B=2, C=3, D=4, and E=5

b. Reversed scored items are **3, 5, 11, 13, 18, 20, 25, 27, 32, 34, 36, and 41**. These reversed items are scored as follows: A=5, B=4, C=3, D=2, and E=1.

	Factors	Total	Possible Minimum	Possible Maximum
1	Coach/teacher empathy with athletes/learners		5	25
2	Coach/teacher trust of athletes/learners		11	55
3	Planning and delivery of instruction		5	25
4	Accommodating athlete-learner uniqueness		7	35
5	Coach/teacher insensitivity toward athletes/learners		7	35
6	Experience based learning techniques (athlete/learner-centered learning process)		5	25

Appendix G

LINDENWOOD

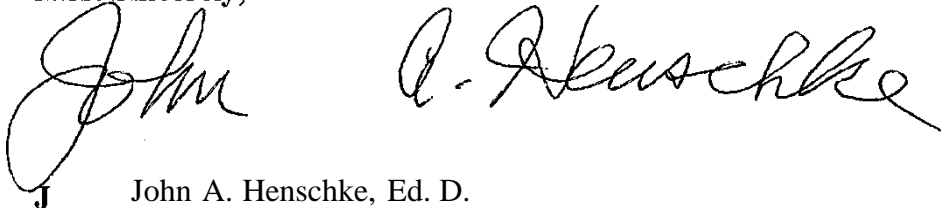
5/24/16

Mr. Hannibal Najjar:

I am pleased that you wish to use the Modified Instructional Perspectives Inventory (MIPI) in your doctoral dissertation research study regarding "*An Investigation in the application of Andragogy Principles and Practices for Coaching Collegiate Student-athletes – Case Study of Lindenwood University's Men and Women Swimming Teams.*" I hereby give you permission to use this copyrighted instrument. I would expect an appropriate citation for this tool in your dissertation or any publications that result from using it.

If there is any other way I may help you in this process, please let me know. My best wishes to you in your research.

Most Sincerely,

A handwritten signature in black ink, appearing to read "John A. Henschke". The signature is written in a cursive style with a large initial "J".

John A. Henschke, Ed. D.

Chair of Andragogy Doctoral Emphasis Specialty and Associate
Professor School of Education, Lindenwood University

Appendix H

QUESTIONNAIRE-SURVEY – STUDENT-ATHLETES

LINDENWOOD

INFORMED CONSENT FOR PARTICIPATION IN RESEARCH ACTIVITIES*An Andragogical Exploration of a Collegiate Swimming Diving Coach's Practices and Principles at Lindenwood University: A Case Study.*

Principal Investigator: *Hannibal Najjar* (Telephone: 636-579-0232 E-mail: hnajjar@lindenwood.edu)

Any student-athlete under the age of 18 will NOT be allowed to participate in this Study. All under-18 Student-athletes are requested to only state their name, check their age group, and return the Form.

Participant _____ 18 and Older _____ Under 18

1. You are invited to participate in a **Survey-Questionnaire** conducted by *Hannibal Najjar* (under the guidance of *Dr. John Henschke - Dissertation Chair*), as part of the research work on the above Dissertation topic. The purpose is to investigate the link between Andragogy and Coaching of the Student-athletes of the Men and Women's Swim/Dive Programs at Lindenwood University. More specifically, the Study will explore (i) To what extent, if any, does the Coach of the LU Men and Women's Swim/Dive Programs practice the principles of Andragogy in his coaching? (ii) To what extent, if any, does the coach of the LU Men and Women's Swim/Dive Programs perceive that he practices the principles of Andragogy (using Henschke's (1989) Modified Instructional Perspectives Inventory (MIPI)? (iii) To what extent, if any, do the student-athletes of the LU Swim/Dive Programs perceive that the coach practices the principles of Andragogy (using Henschke's (1989) Modified Instructional Perspectives Inventory (MIPI)? (iv) What is the comparison between the coach's perceptions and those of the student-athletes regarding the extent to which he practices the principles of Andragogy?
2. Your participation will involve completing a Survey/Questionnaire Instrument that would be e-mailed to you. The amount of time involved in your participation will be, 1–2 hours.
3. Your participation is voluntary and you may choose not to participate in this research study or to withdraw your consent at any time. You may choose not to answer any questions that you do not want to answer. You will NOT be penalized in any way should you choose not to participate or to withdraw.
4. Participants' identities will be kept confidential and deidentified by replacing names with numbers. In some cases, in studies with small sample size, there may be risk of identification.
5. There are no direct benefits for you participating in this study. However, your participation will contribute to the knowledge of Andragogy and may improve athletic coaching practices and principles
6. If you have any questions or concerns regarding this study, or if any problems arise, you may call the Investigator, *Hannibal Najjar* at 636-579-0232 or the Supervising Faculty, *Dr. John Henschke* at 636-949-4590. You may also ask questions of or state concerns regarding your participation to the Lindenwood Institutional Review Board (IRB) through contacting Dr. Marilyn Abbott, Provost at mabbott@lindenwood.edu or 636-949-4912.
7. Participant's Email information

I have read this consent form and have been given the opportunity to ask questions. I will also be given a copy of this consent form for my records. I consent to my participation in the research described above.

Participant's Signature Name	Date	Participant's Printed
---------------------------------	------	-----------------------

Signature of Principal Investigator Name	Date	Investigator Printed
---	------	----------------------

Appendix I

SURVEY-QUESTIONNAIRE INSTRUMENT – STUDENT-ATHLETES

LINDENWOOD

An Investigation in the application of Andragogy Principles and Practices for Coaching Collegiate Student-athletes – Case Study of Lindenwood University’s Men and Women Swimming Teams.

Principal Investigator: *Hannibal Najjar- Telephone: 636-579-0232 E-mail: hnajjar@lindenwood.edu*

PART A. General Information

1. Name _____
2. Questionnaire Completion Date _____
3. Gender M ____ F ____
4. Age ____
5. Sr. ____ So. ____ Jr. ____ Fr. ____
6. Were you a competitive swimmer before entering Lindenwood University?
If yes, at what level? High School ____ College ____ State ____ National ____ Other ____
7. Check with an “X” the respective boxes to indicate the type of swimming you engage in and for how long have you been participating?

Type of Swimming	Time Spent Participating			
	< 6 Months	> 1 Year	1-3 Years	4+ Years
Competitively				
Open water				
Recreational/Keep fit				

8. How many times a week do you train?
1 ____ 2 ____ 3 ____ 5 ____ 6 ____ 7 ____

9. Number of semesters under Coach Owen _____

PART B. Questionnaire (Open ended)

Think of this Current Season and Answer the following:

1. What is your main reason for being involved in the University's swim team?

Did you discuss your goals for the season with your coach?

Yes ____ No ____

If yes, when did this discussion take place and who initiated it?

Did Coach Owen adjust the training to cater to your specific needs?

Yes ____ No ____

If yes, how did he do this? And, when did this take place?

Does Coach Owen give you a rationale for doing particular sets in your training program throughout the season?

Yes ____ No ____

If yes please describe in greater detail.

Does Coach Owen use any demonstration techniques for stroke correction?

Yes ____ No ____

If yes, who does the demonstration?

Does Coach Owen do wrap-ups and go-overs before dismissing after training sessions?

Yes _____ No _____

2. Does Coach Owen discuss with you the various aspects of your training sessions throughout the season?

Yes _____ No _____

3. At the end of practice does Coach Owen provide information regarding the next day's practice?

Yes _____ No _____

4. Does Coach Owen discuss goals, skills, and technique and tactics before each practice?

Yes _____ No _____

5. How would you describe the coaching style of Coach Owen? Which one of combination of the following speaks to his method/style of coaching?

Question and answer (Socratic) _____

Instructional _____

Partner-assisted (peer-teaching) _____

Guided discovery _____

Facilitating self-discovery _____

Other _____

Please elaborate

Do you think Coach Owen pays enough attention to your individual needs as they relate to swimming performances - these can be technique, tactics, overall aerobic and anaerobic physical, strength, speed, and power, stamina, and, endurance fitness, and flexibility?

Yes _____ No _____

If no, what would you like the coach to do differently?

Do you think Coach Owen pays enough attention to your individual needs as they relate to your overall health and wellness, namely - nutrition, rest and relaxation, mental, psychological, and emotional?

Yes _____ No _____

If no, what would you like the coach to do differently?

Do you think that Coach Owen shows enough interest in your academic performances?

Yes _____ No _____

If no, what would you like the coach to do differently?

What would you like Coach Owen to start, stop, or continue doing?

How would you best describe Coach Owen? Check all that apply.

Warm _____ Supportive _____ Open _____ Respectful _____ Enthusiastic _____ Demanding _____

Facilitating _____ Knowledgeable _____ Articulate _____ Listener _____ Interested _____ Committed _____

Friendly _____ Sensitive _____ Empathetic _____ Reciprocating Trust _____ Fair _____ Humane _____

Other _____ please explain:

6. What kind of environment is created at the pool for each session?

Place where I can learn new things _____

Place where I can socialize with my teammates _____

Place where I can relax and have fun swimming and learning _____

Place where I feel stressed because of the difficult training sessions _____

Other _____

Please elaborate if need

7. How do you evaluate the successes of your recent training sessions?

8. How do you evaluate the successes of your last training session?

PART C. Customized MIPI Survey

Think of the Entire Time You Have Been Swimming for Coach Owen and Complete the Following MIPI

Modified Instructional Perspectives Inventory

Observation of the Coach

Modified Version of John A. Henschke (1989)

Listed below are 45 statements reflecting beliefs, feelings, and behaviors that coaches of adults may or may not possess. Please reflect on your semesters with Coach and circle the letter that best describes your observations and experiences.

How frequently does Coach Owen:

	Almost Never	Not Often	Sometimes	Usually	Almost Always
1. Use a variety of coaching techniques?	A	B	C	D	E
2. Use buzz groups (student-athletes placed in small groups for discussion)?	A	B	C	D	E
3. Show that your primary goal is to provide student-athletes as much information as possible?	A	B	C	D	E
4. Show that he is fully prepared to coach?	A	B	C	D	E
5. Recognize having difficulty understanding the athletes viewpoint?	A	B	C	D	E
6. Demonstrate acceptance of student-athletes' frustrations as they grapple with problems unique to them?	A	B	C	D	E
7. Purposefully communicate to student-athletes that each person is uniquely important?	A	B	C	D	E
8. Express confidence that athletes will develop the skills they need?	A	B	C	D	E
9. Search for and create new coaching techniques?	A	B	C	D	E
10. Coach through simulations of real-life (coach parabolically)?	A	B	C	D	E
11. Coach exactly what and how you have planned?	A	B	C	D	E
12. Notice and acknowledge positive changes in student-athletes?	A	B	C	D	E
13. Have difficulty getting his points across to student-athletes?	A	B	C	D	E

How frequently does Coach Owen:

Almost Never	Not Often	Sometimes	Usually	Almost Always
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14. Acknowledge that his student-athletes vary in the way they acquire, process, and apply new or refined knowledge?	A	B	C	D	E
15. Really listen to what his student-athletes have to say?	A	B	C	D	E
16. Trust your student-athletes to know what their own goals, dreams, and realities are like?	A	B	C	D	E
17. Encourage his student-athletes to solicit assistance from other student-athletes?	A	B	C	D	E
18. Demonstrate impatience with his student-athletes' progress?	A	B	C	D	E
19. Balance his efforts between coaching content and motivating?	A	B	C	D	E
20. Try to make your presentations clear enough to forestall all student-athletes questions?	A	B	C	D	E
21. Conduct group discussions?	A	B	C	D	E
22. Establish instructional objectives?	A	B	C	D	E
23. Use a variety of instructional media? (Internet, distance learning, interactive video, videos, audio, etc.)	A	B	C	D	E
24. Use listening teams (learners grouped together to listen for specific purposes) during discussion in classroom sessions	A	B	C	D	E
25. Show confidence that his coaching skills are refined and clear?	A	B	C	D	E
26. Express appreciation to his student-athletes who actively participate?	A	B	C	D	E
27. Experience frustration with his student-athletes' apathy?	A	B	C	D	E
28. Prize his student-athletes' individual ability to learn what is needed?	A	B	C	D	E
29. Feel his student-athletes need to make aware and communicate their thoughts and feelings?	A	B	C	D	E
30. Enable his student-athletes to evaluate their own progress in learning and performances?	A	B	C	D	E

How frequently does Coach Owen:

	Almost Never	Not Often	Sometimes	Usually	Almost Always
31. Heed to what his student-athletes indicate as their coaching/learning needs?	A	B	C	D	E
32. Demonstrate awareness of the difficulty of skills being learnt by giving his student-athletes the time they need to understand those concepts?	A	B	C	D	E
33. Promote positive self-esteem in his student-athletes?	A	B	C	D	E
34. Require student-athletes to follow the precise coaching instructions he provides to them?	A	B	C	D	E
35. Conduct role plays?	A	B	C	D	E
36. Demonstrate insensitivity/boredom when student-athletes ask questions excessively?	A	B	C	D	E
37. Individualize the pace of coaching for each of his student-athletes?	A	B	C	D	E
38. Help student-athletes explore their own abilities?	A	B	C	D	E
39. Engage his student-athletes in clarifying their own aspirations?	A	B	C	D	E
40. Ask the student-athletes how they would approach a given task?	A	B	C	D	E
41. Demonstrate irritation at student-athletes' inattentiveness in the coaching setting?	A	B	C	D	E
42. Integrate coaching strategies and techniques with subject matter content?	A	B	C	D	E
43. Develop supportive relationships with his student-athletes?	A	B	C	D	E
44. Exhibit unconditional positive regard for his student-athletes?	A	B	C	D	E
45. Demonstrate respect for the dignity and integrity of his student-athletes?	A	B	C	D	E

Student-athletes' Perspectives Inventory Factors

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	4]	7]	1]	6]	5]	2]	3]
	12]	8]	9]	14]	13]	10	11]
	19]	16]	22]	15]	18]	21]	20]
	26]	28]	23]	17]	27]	24]	25]
	33]	29]	42]	37]	32]	35]	34]
		30]		38]	36]		
		31]		40]	41]		
		39					
		43]					
		44]					
		45]					
TOTAL							

Scoring Process

Taking the A-E scores from the numbers of the 45 Statements, use the following numerical conversion

for A-E and place that value alongside the respective statement number. Reversed values are in **RED**.

a. A=1, B=2, C=3, D=4, and E=5

b. Reversed scored items are **3, 5, 11, 13, 18, 20, 25, 27, 32, 34, 36, and 41**. These reversed items are scored as follows: A=5, B=4, C=3, D=2, and E=1.

	Factors	Total	Possible Minimum	Possible Maximum
1	Coach/teacher empathy with athletes/learners		5	25
2	Coach/teacher trust of athletes/learners		11	55
3	Planning and delivery of instruction		5	25
4	Accommodating athlete-learner uniqueness		7	35
5	Coach/teacher insensitivity toward athletes/learners		7	35
6	Experience based learning techniques (athlete/learner-centered learning process)		5	25

Appendix J

INFORMED CONSENT FOR PARTICIPATION IN RESEARCH ACTIVITIES
CONSENT TO PARTICIPATE IN FOCUS GROUP: STUDENT-ATHLETES



*“An Andragogical Exploration of a Collegiate Swimming and Diving Coach’s Practices and Principles
 AT Lindenwood University: A Case Study.”*

Principal Investigator: *Hannibal Najjar - Telephone: 636-579-0232 E-mail: hnajjar@lindenwood.edu*

1. You are invited to participate in a **Focus Group** conducted by *Hannibal Najjar* (under the guidance of *Dr. John Henschke - Dissertation Chair*), as part of the research work on the above Dissertation topic. The purpose is to investigate the link between Andragogy and Coaching of the Student-athletes of the Men and Women’s Swim/Dive Programs at Lindenwood University. More specifically, the Study will explore (i) To what extent, if any, does the Coach of the LU Men and Women’s Swim/Dive Programs practice the principles of Andragogy in his coaching? (ii) To what extent, if any, does the coach of the LU Men and Women’s Swim/Dive Programs perceives that he practices the principles of Andragogy (using Henschke’s (1989) Modified Instructional Perspectives Inventory (MIPI)? (iii) To what extent, if any, do the student-athletes of the LU Swim/Dive Programs perceive that the coach practices the principles of Andragogy (using Henschke’s (1989) Modified Instructional Perspectives Inventory (MIPI)? (iv) What is the comparison between the coach’s perception and those of the student-athletes regarding the extent to which he practices the principles of Andragogy?
2. Your participation will involve:
 - An open discussion of questions (audio recording) related to the above topic.
 - The amount of time involved in your participation will be: 1–2 hours.
3. Your participation is voluntary and you may choose not to participate in this research study or to withdraw your consent at any time. You may choose not to answer any questions that you do not want to answer. You will NOT be penalized in any way should you choose not to participate or to withdraw.
- 4 We will do everything we can to make obscure and protect your privacy and identity. However, as with participation in any Focus Group there is the risk that you might be able to be identified by a knowledgeable and persistent reader. In some cases, in studies with small sample size, there may be risk of identification.
5. There are no direct benefits for you participating in this study. Note, your participation will contribute to the knowledge about Andragogy and may help improve athletic coaching practices and principles
6. If you have any questions or concerns regarding this study, or if any problems arise, you may call the Investigator, *Hannibal Najjar at 636-579-0232* or the Supervising Faculty, *Dr. John Henschke at 636-949-4590*. You may also ask questions of or state concerns regarding your participation to the Lindenwood Institutional Review Board (IRB) through contacting Dr. Marilyn Abbott, Provost at mabbott@lindenwood.edu or 636-949-4912.
7. Participant’s Email information _____

I have read this consent form and have been given the opportunity to ask questions. I will also be given a copy of this consent form for my records. I consent to my participation in the research described above.

 Participant's Signature

Date

Participant’s Printed Name

 Signature of Principal Investigator Date

Investigator Printed Name

Appendix K

FOCUS GROUP CONFIRMATION LETTER – STUDENT-ATHLETES

LINDENWOOD

“An Andragogical Exploration of a Collegiate Swimming and Diving Coach’s Practices and Principles at Lindenwood University: A Case Study.”

Principal Investigator: *Hannibal Najjar*- Telephone: 636-579-0232 E-mail: *hnajjar@lindenwood.edu*

Date _____ 2016

Dear _____

Thank you for your willingness to participate in our focus group. As discussed on the phone, we would like to hear your ideas and opinions about the coaching principles and practices used by your Swimming and Diving coach. You will be in a group of 8-12 of your team members. Every effort will be made to keep your responses to the questions confidential and as much as possible, anonymous. The date, time, and place are listed below. Please look for signs once you arrive directing you to the room where the focus group will be held.

DATE: _____

TIME: _____

PLACE: _____

If you need directions to the focus group or will not be able to attend for any reason please call the Principle Investigator, Hannibal Najjar, at 636-579-0232. Otherwise we look forward to seeing you.

Sincerely

Hannibal Najjar

Appendix L

National Institute of Health (NIH) Office of Extramural Research

Certifies that Hannibal Najjar successfully completed the Web-based training course
“Protecting
Human Research Participants”

Date of Completion: 10/26/2015

Certification Number: 1885364