Influences Impacting the Development of Entry-Level Master's Athletic Training Programs

Jennifer E. Deranek

Follow this and additional works at: http://scholarworks.wmich.edu/dissertations

Part of the Health and Physical Education Commons, and the Higher Education Commons

Recommended Citation

Deranek, Jennifer E., "Influences Impacting the Development of Entry-Level Master's Athletic Training Programs" (2015). Dissertations. 582.
http://scholarworks.wmich.edu/dissertations/582
INFLUENCES IMPACTING THE DEVELOPMENT OF ENTRY-LEVEL MASTERS ATHLETIC TRAINING PROGRAMS

by

Jennifer E. Deranek

A dissertation submitted to the Graduate College in partial fulfillment of the requirements for the degree of Doctor of Philosophy Educational Leadership, Research and Technology Western Michigan University June 2015

Doctoral Committee:
Andrea Beach, Ph.D., Chair
Gayle Thompson, Ph.D.
D. Eric Archer, Ph.D.
Athletic training is an allied health profession in which individuals receive education in prevention, emergency care, clinical diagnoses, therapeutic intervention and rehabilitation for injuries and medical conditions. Currently, the route for an individual to become a certified athletic trainer is to graduate from an institution accredited by the Commission on Accreditation of Athletic Training Education (CAATE). Most commonly, entry-level education for athletic trainers is gained at the 331 institutions that host a bachelor’s level professional program. However, there is a recent desire to change the educational requirements and to require a professional master’s degree. If the degree change would occur, athletic training would have a stronger alignment with other health care professions and support the increasing knowledge base needed for certified athletic trainers.

If a degree change is mandated, there is the potential for significant programmatic changes at the institutions which currently host baccalaureate athletic training programs. Program development is influenced by many factors within the institution and also external factors. The purpose of this research was to examine which of those factors have influenced the development of six current entry-level master’s athletic training program. Using a multiple case study design, 11 individuals were interviewed on the processes and influences that impacted the creation of the CAATE accredited entry-level master’s athletic training programs. Although each institution had a unique journey in the
development of their professional master’s program, the most common influential factors on the development of these programs were institutional support, faculty load and structure, resources, graduate-work expectation, and accrediting agencies. This research helps to provide a guiding framework for a substantive degree change and can help institutions navigate through the process of changing degree requirements.
ACKNOWLEDGEMENTS

This journey would not have been completed if it wasn’t for the power of many. I am filled with so much gratitude for the amount of support I have received throughout this process. I am grateful for the time, dedication, and insight of my committee members; Dr. Andrea Beach, Dr. Gayle Thompson, and Dr. Eric Archer. Thank you for allowing me to push the time line and let my mind wander!

The personal sacrifice that is needed to complete a doctoral degree and a dissertation is one that is often not discussed. I am not sure we had any idea what we were getting ourselves into. Thank you to my amazing husband, Mike, for putting up with my stress, countless hours at the computer, being a listening ear, and always being my biggest supporter. My son, Andrew, arrived in this world during this crazy process. I hope he forgets about the hours he spent in his high chair while I was on the computer and remembers how his mom persevered and diligently worked to compete this work of art. The love of family should always come first. DGS 6-12-02

The athletic trainers in the United States are a tight bunch. I have been so fortunate to have incredible mentors that have directed me on this journey. I have worked with amazing colleagues that have supported this challenge and my closest friends are those that have traveled close on this athletic training journey. Whether undergraduate classmates, graduate classmates, coaches, mentors, or former athletes; I have been fortunate to meet amazing people that have impacted my life. Thank you to all of those who have allowed me the gift of friendship.

While pursing my master’s degree at the University of Virginia, we had the opportunity to have a well-known athletic trainer speak in one of our classes, Dr. Joe Gieck. During this talk, he handed out a quarter sheet of paper with one of the most
inspirational athletic training quotes I have ever read. It has traveled with me through moves to Virginia, New Hampshire, Michigan, and Indiana. I wish I could count the number of times I read the following for inspiration:

Athletic training is powerful! To being with, on an individual basis, it is personally exhilarating. You make friends, you learn new subjects, you master new skills – and you help other people improve their circumstances and their lives. And, in the process, you yourself become a far more interesting person. An eager willingness to serve others is undoubtedly one of the most attractive attributes an individual can possess.

Athletic training is powerful. Thank you to my participants for being willing to take a risk as we work together to make our profession better, one step at a time.

Jennifer E. Deranek
TABLE OF CONTENTS

ACKNOWLEDGEMENTS........................................................................................................ ii
LIST OF FIGURES .................................................................................................................. xi

CHAPTER

I. INTRODUCTION .............................................................................................................. 1
   Background ....................................................................................................................... 1
   Problem Statement ......................................................................................................... 4
   Theoretical Perspective ................................................................................................. 5
   Purpose Statement and Research Questions ............................................................... 5
      Purpose Statement ..................................................................................................... 5
      Research Questions ................................................................................................... 5
   Methods Overview ........................................................................................................ 6
      Research Design .......................................................................................................... 6
   Conceptual Framework ................................................................................................. 7
   Summary ......................................................................................................................... 9

II. LITERATURE REVIEW .................................................................................................. 10
   Background .................................................................................................................... 10
      History of Athletic Training Education .................................................................... 11
      Other Allied Health Professions .............................................................................. 15
         Physical Therapy .................................................................................................... 16
         Occupational Therapy ........................................................................................... 16
<table>
<thead>
<tr>
<th>CHAPTER</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physician Assistant</td>
<td>17</td>
</tr>
<tr>
<td>Nursing</td>
<td>17</td>
</tr>
<tr>
<td>External Influences</td>
<td>18</td>
</tr>
<tr>
<td>Accrediting Agencies</td>
<td>19</td>
</tr>
<tr>
<td>Commission on Accreditation of Athletic Training Education</td>
<td>19</td>
</tr>
<tr>
<td>National Athletic Trainers’ Association</td>
<td>21</td>
</tr>
<tr>
<td>Board of Certification</td>
<td>22</td>
</tr>
<tr>
<td>Intersection of CAATE, NATA and BOC</td>
<td>23</td>
</tr>
<tr>
<td>Employment Marker</td>
<td>24</td>
</tr>
<tr>
<td>Government</td>
<td>28</td>
</tr>
<tr>
<td>Internal Influences</td>
<td>29</td>
</tr>
<tr>
<td>Institutional Control and Organizational Infrastructure</td>
<td>29</td>
</tr>
<tr>
<td>Purpose</td>
<td>32</td>
</tr>
<tr>
<td>Curriculum</td>
<td>33</td>
</tr>
<tr>
<td>Instructional Processes</td>
<td>33</td>
</tr>
<tr>
<td>Classroom Education</td>
<td>33</td>
</tr>
<tr>
<td>Clinical Education</td>
<td>35</td>
</tr>
<tr>
<td>Implications of Extended Classroom and Clinical Education</td>
<td>37</td>
</tr>
<tr>
<td>Instructional Resources</td>
<td>38</td>
</tr>
<tr>
<td>Faculty</td>
<td>38</td>
</tr>
<tr>
<td>Placement of Athletic Training Programs</td>
<td>39</td>
</tr>
</tbody>
</table>
# Table of Contents – Continued

<table>
<thead>
<tr>
<th>CHAPTER</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evaluation</td>
<td>40</td>
</tr>
<tr>
<td>CAATE Accreditation</td>
<td>41</td>
</tr>
<tr>
<td>Retention</td>
<td>41</td>
</tr>
<tr>
<td>Summary</td>
<td>42</td>
</tr>
<tr>
<td>III. METHODOLOGY</td>
<td>44</td>
</tr>
<tr>
<td>Research Design</td>
<td>44</td>
</tr>
<tr>
<td>Population and Sites</td>
<td>45</td>
</tr>
<tr>
<td>Data Collection Procedures</td>
<td>46</td>
</tr>
<tr>
<td>Data Analysis Procedures</td>
<td>48</td>
</tr>
<tr>
<td>Reflexivity</td>
<td>49</td>
</tr>
<tr>
<td>Limitations</td>
<td>51</td>
</tr>
<tr>
<td>Summary</td>
<td>51</td>
</tr>
<tr>
<td>IV. RESULTS</td>
<td>53</td>
</tr>
<tr>
<td>Institutions and Participants</td>
<td>54</td>
</tr>
<tr>
<td>Light College</td>
<td>54</td>
</tr>
<tr>
<td>Institution Demographics</td>
<td>54</td>
</tr>
<tr>
<td>Participants</td>
<td>54</td>
</tr>
<tr>
<td>Athletic Training Program Development</td>
<td>55</td>
</tr>
<tr>
<td>Poseidon College</td>
<td>64</td>
</tr>
<tr>
<td>Institution Demographics</td>
<td>64</td>
</tr>
<tr>
<td>Participants</td>
<td>64</td>
</tr>
</tbody>
</table>
Table of Contents – Continued

CHAPTER

Athletic Training Program Development................................. 64

Redwood State University ....................................................... 72

Institution Demographics....................................................... 72

Participants................................................................. 72

Athletic Training Program Development................................. 73

Rocky River University ..................................................... 81

Institution Demographics....................................................... 81

Participants................................................................. 81

Athletic Training Program Development................................. 82

St. Stella University ......................................................... 89

Institution Demographics....................................................... 89

Participants................................................................. 89

Athletic Training Program Development................................. 89

West Grand University ....................................................... 95

Institution Demographics....................................................... 95

Participants................................................................. 95

Athletic Training Program Development................................. 95

Emergent Themes and Subthemes ............................................ 101

Theme One: Knowing the Institution ..................................... 101

Levels of Support............................................................ 101

Financial Ability and Sustainability....................................... 105

Program Development........................................................ 107
Table of Contents – Continued

CHAPTER

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty Needs</td>
<td>108</td>
</tr>
<tr>
<td>Relationship with Athletics</td>
<td>112</td>
</tr>
<tr>
<td>Interprofessional Education</td>
<td>114</td>
</tr>
<tr>
<td>Theme Two: What Makes It Graduate Work?</td>
<td>115</td>
</tr>
<tr>
<td>Admissions Process</td>
<td>116</td>
</tr>
<tr>
<td>Clinical Experience</td>
<td>118</td>
</tr>
<tr>
<td>Research</td>
<td>119</td>
</tr>
<tr>
<td>Program Quality</td>
<td>121</td>
</tr>
<tr>
<td>Theme Three: The Right Model</td>
<td>123</td>
</tr>
<tr>
<td>Two-Year Post-Baccalaureate</td>
<td>123</td>
</tr>
<tr>
<td>3+2 Option</td>
<td>127</td>
</tr>
<tr>
<td>5 Year</td>
<td>129</td>
</tr>
<tr>
<td>Research Questions</td>
<td>131</td>
</tr>
<tr>
<td>Research Question 1</td>
<td>131</td>
</tr>
<tr>
<td>Internal Influences</td>
<td>131</td>
</tr>
<tr>
<td>External Influences</td>
<td>135</td>
</tr>
<tr>
<td>Research Question 1a</td>
<td>137</td>
</tr>
<tr>
<td>Research Question 1b</td>
<td>139</td>
</tr>
<tr>
<td>Research Question 1c</td>
<td>139</td>
</tr>
<tr>
<td>Research Question 1d</td>
<td>141</td>
</tr>
<tr>
<td>Research Question 1e</td>
<td>142</td>
</tr>
<tr>
<td>Summary</td>
<td>144</td>
</tr>
</tbody>
</table>
Table of Contents – Continued

CHAPTER

V. DISCUSSION .................................................................................................................. 146

Summary of Major Results and Comparison to Literature ......................... 146

Knowing the Institution .......................................................................................... 146

Support ..................................................................................................................... 146

Faculty ....................................................................................................................... 148

Relationship to Athletics ....................................................................................... 151

Program Location and Interprofessionalism ............................................... 152

Definition of Graduate Work .............................................................................. 154

Admissions .............................................................................................................. 154

Finances for Students ............................................................................................ 155

Curriculum ............................................................................................................... 157

Pre-Requisites ......................................................................................................... 158

Clinical Experiences .............................................................................................. 158

Research ................................................................................................................... 159

Profession Benefits ................................................................................................. 160

The Right Model ...................................................................................................... 161

New Conceptual Framework .............................................................................. 162

Recommendations for Developing Programs .................................................... 164

Knowing the Institution ....................................................................................... 165

What Makes It Graduate Work? .......................................................................... 169

Admissions .............................................................................................................. 170
Table of Contents – Continued

CHAPTER

Clinical Experience .......................................................................................... 171

Research ........................................................................................................... 171

Recommendations for Future Research ........................................................... 173

Limitations ........................................................................................................ 176

Summary ........................................................................................................... 177

REFERENCES .................................................................................................... 180

APPENDICES .................................................................................................. 187

A. Participant Recruitment Email ............................................................... 187

B. Follow-Up Recruitment Email ............................................................... 188

C. Semi-Structured Interview Protocol ....................................................... 189

D. Participant Consent Process ................................................................. 192

E. HSIRB Notification .................................................................................. 193

F. Informed Consent Form .......................................................................... 194

G. Program Demographics ......................................................................... 197

H. Admission Requirements ........................................................................ 198

I. Pre-Requisite Requirements ..................................................................... 199

J. Curriculum ................................................................................................. 200
LIST OF FIGURES

1. First-Time BOC Pass Rate for Baccalaureate Programs ........................................ 3

2. First-Time BOC Pass Rate for Master’s Programs.................................................. 3

3. Conceptual Framework ............................................................................................. 9

4. BOC Exam Pass Rates from 2011-2013 ................................................................. 24

5. Professional Programs per Year by Degree Type.................................................... 26

6. Number of Programs and Total Enrollment for Allied Health Professions .......... 26

7. New Conceptual Framework .................................................................................... 162
CHAPTER I - INTRODUCTION

Background

Athletic training is an allied health profession in which individuals receive education in prevention, emergency care, clinical diagnoses, therapeutic intervention and rehabilitation for injuries and medical conditions. In order to become an athletic trainer, an individual must graduate from an institution accredited by the Commission on Accreditation of Athletic Training Education (CAATE). Upon meeting other requirements, students are eligible to sit for a certification examination, administered through the Board of Certification (BOC) (BOC, 2014a).

Individuals can become athletic trainers through entry-level professional programs, both at the undergraduate and graduate levels. As of March 2015, there are currently 331 undergraduate professional athletic training programs and 35 entry-level master’s degree programs (ELMs) across the United States (CAATE, 2014e). Each program has a standardized set of guidelines that support the curriculum, content, and programmatic goals; however, each institution has a great deal of autonomy to structure their program to fit the internal and external requirements of the institution. The curricula emphasize injury/illness prevention, first aid and emergency care, assessment injury/illness, human anatomy and physiology, therapeutic modalities, and nutrition. In addition to formal classroom education, athletic training students also participate in clinical education in a multitude of settings in order to provide a comprehensive clinical experience (CAATE, 2014f; NATA, 2011).

Historically, undergraduate professional programs are the most common route for individuals to pursue a career in athletic training and upon graduation; individuals pursue careers in athletic training, change fields, or continue on for graduate work. As of 2014,
more than 70 percent of certified athletic trainers have their master’s degree (NATA, 2014d). Although it has been most prevalent for athletic trainers to enter the field through the professional baccalaureate route, there is a recent shift in thinking regarding the educational demands and requirements for entry-level athletic training. In December of 2013, a white paper, presented to the National Athletic Trainers’ Association Board of Directors, highlighted the idea that the 30 ELM programs, established since the late 1990s (CAATE, 2014), “mirror a national trend in peer healthcare professions who increasingly prepare students for professional practice at the graduate level” (Richardson et al., 2013, p. 2).

The White Paper document highlighted a need for a change in the degree requirement for athletic training students. By changing the minimum degree requirement to a professional master’s degree, the structure of current undergraduate professional education would need to transition to an entry-level master’s program. The proposed thought is that there is a need for a change in academic structure in order to support our increasing knowledge base, increasing complexity of the current/future health care system, the need for athletic training-specific patient outcomes research and to ensure the athletic training profession remains in line with peer healthcare professions (Boyleston, & Collins, 2012; Richardson et al., 2013).

One quantifiable measure of quality and success for professional athletic training programs is passing rates for the national BOC examination, specifically first-time pass rates. Of the 331 professional programs in the United States, there is an average of a 78% first-time pass rate. With further examination, first-time pass rates are greater with Master’s programs (94%) than Bachelors programs (77%) (CAATE, 2014e; Richardson
et al., 2013). Below, figures 1 and 2 demonstrate the difference between cohorts in baccalaureate programs and master’s programs from 2011-2013.

![First-Time BOC Pass Rate for Baccalaureate Programs](image1)

**Figure 1. First-Time BOC Pass Rate for Baccalaureate Programs**

![First-Time BOC Pass Rate for Master’s Programs](image2)

**Figure 2. First-Time BOC Pass Rate for Master’s Programs**

These figures demonstrate that master’s students are outperforming undergraduate students on the exam itself, which is related to increased student age, increased length of the educational process, and developmental differences (Richardson et al., 2013). The discrepancies between passing rates is one of the driving forces behind the proposed change in the degree requirement for athletic trainers.

The potential change in academic requirements will require a re-examination of the structure of current entry-level master’s athletic training programs. The proposed changes will have a significant impact on the structure and function of the 331
undergraduate professional programs, which will need to transition to the professional master’s level or be terminated. Anecdotal discussion with athletic trainers at the 2014 NATA Convention demonstrates that there is a sense of unease and lack of satisfaction with the direction of athletic training education and the impact this change will have on job placement, salaries for new professionals, career advancement and finances for programs and institutions. However, others believe that undergraduate entry-level education does not give students enough time to build confidence and proficiency (Jones, 2007). Therefore, the experiences of current ELM programs could ease some of the tension by highlighting the success of institutions and also provide a set of guidelines to prepare for the institutional and programmatic changes ahead.

The potential mandate for a degree change for athletic training could create significant challenges for many baccalaureate athletic training programs. I am a graduate of a small, private liberal arts institution with a traditional undergraduate athletic training program. After graduation, I attended a traditional post-professional graduate program. I have been very intrigued with this degree change as I think it has the potential to seriously decrease the number of athletic training programs, especially at smaller liberal arts institutions. I feel fortunate that I have been able to explore this topic at a timely manner. Additionally, it is valuable to say that my viewpoint on the entry-level master’s degree has changed. Originally, I was enraged with the change due to a myriad of factors; however, the research I conducted has led me to believe this is a positive change for the future of athletic training.

**Problem Statement**

A significant gap in the literature exists as there are no research studies that examine the development of athletic training programs at the professional undergraduate
or graduate levels. Additionally, many athletic trainers are uncomfortable with the direction of the profession and the impact of the upcoming changes as there are many questions left unanswered.

**Theoretical Perspective**

The theoretical perspective that guides this research is from Lattuca and Stark’s (2009) book, *Shaping the College Curriculum: Academic Plans in Context*. This book examines the internal and external influences that shape the development of institutional curricula. For the purpose of this research, the concept behind the impact and intersection of internal and external influences will guide the direction and theoretical framework for this piece of literature. The internal and external influences on programmatic development will be further discussed in this chapter.

**Purpose Statement and Research Questions**

**Purpose Statement**

The purpose of this research is to examine the internal and external influences that have impacted the creation of the CAATE accredited entry-level master’s programs that have achieved initial accreditation within the last five years. A multiple case study approach was used to collect data to provide an in-depth examination of the process, challenges, and triumphs of the involved athletic training programs.

**Research Questions**

The following research question guided this investigation: What internal and external influences have impacted the creation of the examined CAATE accredited entry-level master’s programs? Additionally, the following sub-questions will be explored:

1. How are recent entry-level master’s programs being structured to incorporate an undergraduate education component?
2. What are the financial implications of the creation and sustainability of an entry-level master’s program?

3. How are faculty load and structure impacted with the implementation of an entry-level master’s program?

4. What are the outcomes of students graduating from entry-level master’s programs?

5. What are institutions using to promote competitive admissions?

Methods Overview

Research Design

To provide a comprehensive examination of the aforementioned topic, I will use a qualitative multiple case study approach from an interpretivist perspective. Qualitative research involves studying a social phenomenon through in-depth, interpretive, and pragmatic exploration of lived experiences of people and organizations (Creswell, 2009; Marshall & Rossman, 2011). Qualitative research allows for themes and patterns to be established through inductive and deductive data analysis. Additionally, qualitative research gives a voice to the participants and also explores the reflexivity of the researcher (Creswell, 2009, 2013). Interpretivism is a way of gaining multiple insights in order to understand the whole meaning (Creswell, 2009, 2013). The underlying assumption of interpretivism is that the whole needs to be examined in order to understand a phenomena. This assumption defines the relevance of interpretivism to this research; in order to fully understand the development process, a myriad of sources and details are needed to provide a detailed description.

A multiple case study approach will be used in order to collect detailed and inclusive data on current ELM programs. A case study approach allows the author to
provide layers of information that combine together to create broad interpretations of the present data (Creswell, 2013). The similarities and differences in the experiences may provide a framework for other institutions to explore how to smoothly and effectively make the transition from a professional undergraduate program to an ELM program.

**Conceptual Framework**

The conceptual framework for this study (Figure 3) is derived from Lattuca and Stark’s (2009) concepts on external and internal influences on curricula and program development in higher education. The arrows represent the external and internal influences that intersect together to support the development of ELM programs. This overlap demonstrates that while identified as separate, external and internal influences are interrelated (Lattuca & Stark, 2009).

The light orange arrow pointing up represents the external influences that impact program development. As described by Lattuca and Stark (2009), external groups have a strong and direct influence on academic programs. External influences on programmatic development include accrediting agencies, the employment market, and the government.

With regard to accrediting agencies, the field of athletic training has several external influences that impact how programs are structured and developed. The Commission on Accreditation for Athletic Training Education (CAATE) is an external agency that establishes program accreditation for individual institutions (CAATE, 2014a). The Board of Certification (BOC) is an external certification agency that establishes the sole national certification exam and works with the CAATE to ensure the requirements for certification are met (BOC, 2014a). The final external agency is the National Athletic Trainers’ Association (NATA). The NATA is the professional membership association for certified athletic trainers and other individuals who support
the athletic training profession. The NATA works together with the CAATE and the BOC to ensure that education properly aligns with current standards of professional practice through clinical competencies and proficiencies necessary for employment as an entry-level athletic trainer (NATA, 2014a).

Additionally, the employment market is an important external factor influencing the development of ELM programs. Without a demand for new professionals, there would be little need for the change and development of programs. Another external influence that impacts the development of ELM programs is the government. The government has a strong impact on program development on multiple levels. Governmental influences, such as a board of regents, have a significant impact on the funding and revenue resources for individual programs and institutions.

The dark orange arrow pointing down represents the internal influences at an institution that can impact program development. Internal influences are those within the institution that are interrelated and mutually reinforcing. Typically these influences support the history, culture, mission and goals of the institution and are applied to developing programs (Lattuca & Stark, 2009). Internal influences are comprised of institutional control and organizational infrastructure, program planning and development, purpose, curriculum and sequence, instructional processes, instructional resources, and evaluation. Program planning and development incorporate the proposals for various curricula and programs which are presented and approved by the internal governing board. Unit-level influences directly impact the content, curriculum, and instructional processes of a program (Lattuca & Stark, 2009). These unit-level influences involve the composition of faculty members, the characteristics of the studies, and other factors that are unique to each department. The final internal factor is that of institutional
influences, which includes the internal characteristics of the institution. This includes the institutional type, based on the Carnegie Classification, and institutional control including public and private institutions. Additionally, institutional influences involve the college mission, resources for the institution, and governance.

**Figure 3. Conceptual Framework**

**Summary**

A multiple case study qualitative approach will be used to examine multiple case studies of current entry-level master’s athletic training programs in order to develop an understanding of the internal and external influences that shaped the development of individual programs. This research will be beneficial for other allied health professions in need of curricula and program reform. Most immediately, this research will provide a guideline for the other 331 undergraduate professional athletic training programs in the United States that may soon be faced with adopting a new curriculum to fulfill the new requirement of students obtaining master’s degrees in order to be eligible for the national certification exam and a career in athletic training or discontinue the program as a whole.
CHAPTER II - LITERATURE REVIEW

Background

Athletic trainers are multi-skilled health care professionals who provide prevention, emergency care, clinical diagnoses, therapeutic intervention, and rehabilitation for injuries and medical conditions. Athletic training is an allied health care profession that is recognized by the American Medical Association and the Department of Health and Human Services (Delforge & Behnke, 1999; NATA, 2014b). Athletic training is a growing profession and due to the increased demand and interest, there has been discussion about the educational requirements for certified athletic trainers. Currently, to become an athletic trainer, an individual needs to graduate from an institution of higher education that is accredited by the Commission on Accreditation of Athletic Training Education (CAATE). The curricula for these programs focus on injury/illness prevention, first aid and emergency care, assessment of injury/illness, human anatomy and physiology, therapeutic modalities, and nutrition. In addition to formal classroom education, athletic training students also receive extensive immersion in clinical experiences (CAATE, 2014b; NATA, 2014b).

As conversation continues about the change in the degree requirements for entry-level athletic training education, it is important to examine the history of athletic training education as the history depicts how athletic training education is structured today. Additionally, it is important to examine the external and internal influences that impact the structure and function of professional athletic training programs. According to Stark and Lattuca (2009), external influences include accrediting agencies, the employment market, and the government. Internal influences include institutional control, program development, purpose, curriculum, processes, resources, and evaluation. These external
and internal influences are not independent of each other and have a major impact on the structure and existence of athletic training programs (Stark & Lattuca, 2009). This literature review will describe athletic training education in the United States and additionally address a variety of external and internal influences that impact programmatic development at institutions of higher education.

**History of Athletic Training Education**

The need for a formalized curriculum came in response to the development of the National Athletic Trainers’ Association in 1950. At the time the organization was founded, the NATA Professional Education Committee was also formed to oversee the development and approval of athletic training educational programs (Delforge & Behnke, 1999; Weidner & Henning, 2002). In 1959, the committee released their work, which included course requirements for the newly founded athletic training curriculum. The following excerpt describes the goals of the athletic training programs according to Schwank and Miller (1971, in Delforge and Behnke, 1999):

> The program was designed to professionally prepare the prospective athletic trainer for a position at the secondary school level. An individual following this guided program could not only function as an athletic trainer, but could teach health, physical education, and adapted and specific programs for handicapped students. With additional study in a paramedical field, such as physical therapy as suggested by the NATA, the teacher-trainer can provide improved health care not only for student athletes but for the entire student body (p. 54).

The curriculum was loosely based on the requirements that were currently in place for the American Physical Therapy Association and had a major emphasis on individuals
securing a secondary-level teaching credential. At this point, athletic education programs typically existed within departments of health and physical education.

Following the development of the curriculum requirements, interest in athletic training programs by institutions of higher education was slow. It was not until 1969 that the first undergraduate athletic training programs were officially recognized by the NATA. Mankato State University, Indiana State University, Lamar University, and the University of New Mexico were the first institutions that adopted the athletic training curriculum and began educating students to be athletic trainers. In 1972, Indiana State University and the University of Arizona received approval from the NATA to host the first graduate athletic training curriculums (Delforge & Behnke, 1999).

During the formation of the first undergraduate athletic training programs, an additional committee was in the process of developing the first certification examination. In order to be eligible for the certification examination, an individual would have to graduate from an NATA-approved undergraduate or graduate athletic training program, complete an apprenticeship program, graduate from a school of physical therapy, or be actively engaged as an athletic trainer for five years or more. The first certification examination was administered in 1970 and has been administered ever since (Delforge & Behnke, 1999). The implementation of certification within the profession played a critical role in the continued development and recognition of the athletic training profession. The American Medical Association publically established the need for professionally prepared athletic trainers and additional attention was given to the certification process from established organizations (Delforge & Behnke, 1999; Weidner & Henning, 2002). Yet, it was not until 1990 that the American Medical Association (AMA) formally recognized athletic training as an allied health profession.
According to Delforge and Behnke (1999) the 1970s were the greatest period of proliferation of athletic training programs. By 1982, there were 62 accredited undergraduate programs in 33 states, as well as nine graduate-level programs. The growth in the number of athletic training programs created momentum for a revision of the established curriculum. One of the major changes to the curriculum was the removal of the requirement of hard-science courses such as chemistry and physics. These courses were originally integrated into the curriculum because they were also required for physical therapy programs. Some of the courses required in the 1983 curriculum included: prevention of athletic injuries/illnesses, evaluation of athletic injuries/illnesses, first aid and emergency care, therapeutic modalities, therapeutic exercise, administration of athletic training programs, human anatomy, human physiology, exercise physiology, kinesiology/biomechanics, nutrition, psychology, personal/community health, and instructional methods (Delforge & Behnke, 1999). These requirements are not much different than the requirements in today’s undergraduate athletic training curriculum.

As stated, the growth in the accreditation of programs led to the re-evaluation of the required curriculum for athletic training programs. Additionally, the adaptations were deemed necessary in order to provide specialization to meet the clinical needs of athletic trainers and also account for the newly developed competencies for athletic trainers (Delforge & Behnke, 1999). An additional committee from the National Athletic Trainers’ Association, the NATA Professional Education Committee, created a skill competency checklist which provided specific tasks and learning objectives that needed to be taught in accredited undergraduate and graduate programs which accounted for the “unique knowledge of for the certified athletic trainer” (Delforge & Behnke, 1999, p.56).
These competencies continue to exist and are woven into the current athletic training curriculum.

The proliferation of academic programs and the establishment of clinical competencies highlighted the growth and change of the field and also encouraged continuing changes with education. According to Delforge and Behnke (1999), in June 1980, the NATA Board of Directors approved undergraduate athletic training programs to offer an athletic training major. By 1982, 10 colleges and universities had adapted an athletic training major. In order to be considered for hosting the degree, institutions had to provide a letter from the administrator sponsoring the program, program goals and objectives, strategies for obtaining goals and objectives, and a plan for the implementation of progress reports. At the end of the 1980s, the NATA Professional Education Committee had approved 73 undergraduate athletic training programs with an athletic training major (Delforge & Behnke, 1999).

As stated previously, the AMA formally recognized athletic training as an allied health field in 1990. This recognition was a pinnacle step in the continued development of athletic training programs because it was needed to establish program accreditation by the AMA Committee on Allied Health Education and Accreditation (CAHEA). By receiving CAHEA accreditation, athletic training programs received the benefits of standardized education and external review from the accrediting agency which also reviewed other allied health professions (Delforge & Behnke, 1999; Weidner & Henning, 2002). With the support of other organizations such as the American Academy of Family Physicians and the American Academy of Pediatrics, the NATA supported the formation of the Joint Review Committee on Educational Programs, under the CAHEA. In 1993, this organization was responsible for the development of the standards for education
programs, changes to curriculum content, and approval of the renewal and establishment of accredited athletic training programs (Delforge & Behnke, 1999).

The CAHEA had the responsibility of establishing accreditation for entry-level athletic training programs, and the first program was accredited in 1994. In 1995, CAHEA was broken up and the Commission on Accreditation of Allied Health Education Programs (CAAHEP) was developed and this organization took over the accreditation process. Another transition occurred in 2003, when the Joint Review Committee on Athletic Training (JRC-AT) was formed and became an independent accrediting agency. In 2004, the internship route to certification was eliminated and it was determined that the JRC-AT would only provide accreditation for entry-level baccalaureate programs. In 2006, the JRC-AT became the Committee for Accreditation of Athletic Training Education (CAATE), the program that is now responsible for all accreditation of athletic training programs (Wikipedia, n.d.).

Athletic training education has transformed immensely since the inception of the NATA in 1950. Like other allied health professions, program and curricula changes occur frequently to adapt to the changes needed to improve the profession. When these changes are necessary, several external and internal factors are influenced by the necessary alterations.

**Other Allied Health Professions**

A change in the degree requirements for athletic training would better align the profession with other allied health professions as many peer professions are requiring professional education at a master’s degree or higher (Richardson, et al., 2013). It is thought that “as professionalism matures, the level of education is extended in response to practice and societal needs” (Blood, 1984, p. 723 from Hilton, 2005, p. 52). The trend
in the United States is that healthcare degrees are increasingly changing to require advanced degrees, which has decreased the number of professionals trained at the baccalaureate level (Bollag, 2007; Richardson et al., 2013). Physical therapy, occupational therapy, physician assistant, and nursing are all allied health professions that have recently made alterations to their education requirements.

**Physical Therapy**

Physical therapists are defined as individuals who care for health-related conditions, illnesses, or injuries that impact a person’s daily life (Boyleston & Collins, 2012). The demand for physical therapists in the United States has grown since its inception, which has required educational advances beyond simple technical training. According to Boyleston and Collins (2012), in the 1960s a baccalaureate degree was required. In 2002 a master’s degree was the required educational level and then in 2010 it was deemed that a clinical doctorate of physical therapy is the only acceptable educational degree for physical therapists. Similar to athletic trainers, physical therapists must graduate from an accredited program, pass a national certification exam, and meet any state requirements (Boyleston & Collins, 2012).

**Occupational Therapy**

Occupational therapists are professionals who help individuals with everyday life activities that are altered from an illness, injury, disease, disorder, condition or limitation (AJOT, 2010; Boyleston & Collins, 2012). Similar to physical therapists and athletic trainers, the demand for occupational therapists has increased over time which has led to the increased value in an advanced degree. In 1999, it was deemed that all occupational therapy programs must offer a post-baccalaureate level education by 2007 (Bollag, 2007; Hilton, 2005). A
master’s degree is the most common way to enter the field of occupational
therapy, but a clinical doctorate does exist. Hilton (2005) expressed many of the
questions and challenges that were faced by the occupational therapy profession
when undergoing the academic adaptations. Like physical therapy and athletic
training, occupational therapists must also graduate from an accredited program,
pass a national certification exam, and complete any state requirements
(Boyleston & Collins, 2012).

**Physician Assistant**

Physician assistants are licensed to practice medicine with a physician’s
supervision; however, physician assistants have the ability to make medical decisions
regarding diagnostics and treatments (Boyleston & Collins, 2012). There are vast ranges
of programs that exist for physician assistant education, ranging from certificates to
master’s degrees. However, similar to the other professions already discussed, all
programs must be transitioned to a master’s degree by 2020. Despite the variation in the
degree granted, physician assistant programs follow the same benchmarks and to practice
as a physician assistant, one must graduate from an accredited program, pass the national
examination, and meet any state requirements (Boyleston & Collins, 2012; Hlavin &
Callahan, 2013).

**Nursing**

Nursing is defined as the protection of health, prevention of illness, and
alleviation of suffering (Boyleston & Collins, 2012). Education was defined in 1950 with
the establishment of an associate’s degree and to date, nursing programs vary in length
depending on the type or program. Nursing is unique in that there are several pathways
to practice as a professional and there has been no agreement on advancement of the
educational requirements (AWHONN, 2014; Boyleston & Collins, 2012). As of 2012, there were 935 accredited programs for the nursing credential. In addition to passing a state licensure examination, graduation from one of these institutions, regardless of academic degree, grants an individual the registered nurse credential.

These educational programs have each had their own journey to develop the current structure. For those that have transitioned to an advanced entry-level degree, I am sure the journey was filled with challenges similar to what athletic training is facing now and that the influences on programmatic development needed to be explored. Therefore, the following sections will highlight the external and internal influences that impact the continued development of athletic training education and paint a picture of the landscape of athletic training education today.

**External Influences**

According to Stark and Lattuca (2009), external groups have a strong and often direct influence on academic programs. Institutions of higher education have several external influences that impact their ability to house programs and that impact the organizational features of colleges and universities. As evident from the examination of the history of athletic training education, several external groups have had a profound impact on the development of education for athletic trainers and the implementation of the athletic training major. These external forces have a significant impact on the program development and are interrelated with one another as well. Accrediting agencies, the employment market, and the government have a direct impact on the development of the athletic training profession and will be discussed below.
Accrediting Agencies

Accreditation serves to ensure alignment with specific standards and guidelines both for individual programs as well as institutions of higher education (Berdahl & McConnell, 1999). As a program that requires extensive classroom and clinical experience, athletic training programs are typically supported by several accrediting agencies. Each agency controls a specific portion of the education program. Peer and Rakich (2000) state that accreditation promotes continuous improvement and defines the structure and outcomes of athletic training programs. According to Stark and Lattuca (2009), “accreditation also provides a good illustration of the interaction of external and internal influences and the reciprocal nature of the influences we discuss” (p. 24). While the number of accrediting bodies that impact programmatic development at an institution of higher education are vast, the following will discuss the Commission on Accreditation of Athletic Training Education (CAATE), the Board of Certification (BOC), and the National Athletic Trainers’ Association (NATA).

Commission on Accreditation of Athletic Training Education. The Commission on Accreditation of Athletic Training Education (CAATE) has established guidelines for professional and post-professional programs in order to obtain and maintain accreditation. “The mission of CAATE is to provide comprehensive accreditation services to institutions that offer athletic training degree programs and verify that all CAATE-accredited programs meet the acceptable educational standards for athletic training education” (CAATE, 2014a). The CAATE is the only agency in the United States allowed to accredit athletic training programs, which means that students who want to become certified athletic trainers must earn a degree from an institution that

has an athletic training curriculum that is accredited by the CAATE and then pass the Board of Certification (BOC) exam (CAATE, 2014d).

The CAATE provides step-by-step instructions for institutions to follow in order to pursue or maintain accreditation. *The Standards for Accreditation of Professional Athletic Training Programs (Standards)* provides detailed guidelines that institutions must meet prior to become an established, accredited education program and also provides guidelines of what institutions must do to comply with the standards for athletic training education to renew their accreditation (CAATE, 2014a). Institutions must complete a self-study and a peer review is conducted of the self-study. Additionally, institutions undergo a site visit prior to the Review Committee finalizing a decision on an institution’s accreditation status (CAATE, 2014a; CAATE, 2014b).

Currently, the CAATE oversees the accreditation of three types of athletic training programs. Professional programs are available at both baccalaureate and post-baccalaureate degree levels. As of 2015, there are 366 total professional programs that are accredited by the CAATE; 331 bachelors programs and 35 masters programs (CAATE, 2015e). Graduation from one of these programs provides eligibility for students to sit for the Board of Certification examination and grants access to practice as a professional athletic trainer. Additionally, the CAATE grants accreditation to post-professional programs. These programs lead to a masters or doctorate degree for students who are already credentialed as certified athletic trainers. The final type of program that the CAATE accredits is the post-professional residency program. These are formal educational programs designed to expand the knowledge and experience of athletic trainers beyond entry-level education in specific fields such as industrial and performing arts. These programs are designed to better align athletic training with other medical
fields that offer residency programs, like physician assistants (CAATE, 2014c; Hlavin & Callahan, 2013).

The CAATE accreditation establishes a commitment to quality. According to Peer and Rakich (2000), by committing to quality, individual athletic training programs are ensuring their program goals and missions align with the goals of the CAATE as well as the institution. The CAATE gives education programs the guidelines to promote environments in which athletic training students can pursue a professional degree and be capable and educated properly to sit for the national Board of Certification (BOC) examination. This involvement from the CAATE is valuable as Lattuca and Stark (2009) note that, “students who begin pursuing professional majors at the undergraduate level…often practice their future occupations in fieldwork settings as undergraduates”. The commitment to aligning with the mission and vision of the CAATE as well as the institution helps ensure students are having positive experiences as undergraduates in professional majors.

**National Athletic Trainers’ Association.** The National Athletic Trainers’ Association (NATA) was founded in 1950 to provide support for the growing profession of athletic training. Since the time of its inception, membership in the NATA has grown to more than 35,000 members worldwide. The NATA is the professional membership association for individuals who are certified athletic trainers and have passed the BOC examination (NATA, 2014a). The mission of the NATA is “to enhance the quality of health care provided by certified athletic trainers and to advance the athletic training profession” (NATA, 2014b).

To support educational advancement, the NATA has released the *NATA Athletic Training Education Competencies*. The fifth edition has been in place since 2011 and
still guides educational curricula today. The competencies have been developed by the Professional Education Council (PEC) of the NATA which is charged with continuing to better the education of future athletic training professionals. According to the NATA (2011),

The 5th edition of the Athletic Training Education Competencies provides educational program personnel and others with the knowledge, skills, and clinical abilities to be mastered by students enrolled in professional athletic training programs. Mastery of these Competencies provides the entry-level athletic trainer with the capacity to provide athletic training services to clients and patients of varying ages, lifestyles, and needs (p. 3).

The competencies released by the NATA provide a guideline for athletic training programs to follow in order to provide students with minimum requirements for professional education.

**Board of Certification.** The BOC became a separate entity in 1989. It was established to provide the necessary requirements for a certification examination for entry-level athletic trainers. According to the BOC (2014b), it “establishes and regularly reviews both the standards for the practice of athletic training and the continuing education requirements for BOC certified athletic trainers”. Similar to the CAATE, the BOC is the only accredited certification agency for athletic trainers in the United States.

To be eligible to sit for the BOC certification, individuals must graduate from a professional program (Bachelor’s or Entry-Level Master’s) that is accredited by the CAATE (BOC, 2014b). Prior to 2004, there were two routes which made students eligible for the Board of Certification exam. The first approach was for individuals to graduate from an accredited institution which had a structured, formalized educational
and clinical curriculum which required 800 hours of hands-on experiences with a certified athletic trainer. As stated previously, these programs were accredited by CAHEA and are now accredited by the CAATE. Alternatively, the internship route allowed students to complete 1800 hours as an apprenticeship student. By completing the required 1800 hours at an institution which did not house an athletic training degree, students were still eligible to sit for the BOC examination. The internship route was disbanded in 2004 to make way for a competency based education system to align athletic training with the credentialing process of other allied health care professions (Carr & Drummond, 2002; Weidner & Henning, 2002).

**Intersection of CAATE, NATA and BOC.** The overlap between the CAATE, the BOC, and NATA is distinct as all associations are invested in improving the quality of the profession of athletic training. The CAATE is responsible for the implementation and maintenance of accreditation for athletic training programs. The NATA is charged with providing support for the profession and creating educational guidelines for CAATE accredited institutions to produce quality entry-level athletic trainers. The BOC is the governing body which provides the national certification examination to ensure that students are educationally prepared as entry-level athletic trainers.

Each of these external accrediting bodies has unique guidelines which support the overall collaboration and intersection of these agencies. According to the CAATE (2014a), consistency between these documents is necessary to prepare individuals as entry-level athletic trainers. The documents that guide the education of athletic training students are as follows: *NATA Athletic Training Education Competencies*, the *BOC Role Delineation/Practice Analysis*, the *BOC Standards of Professional Practice*, and the
CAATE Standards for Accreditation of Entry-Level Athletic Training Education Programs (CAATE, 2014a).

While these guidelines provide a framework for the educational process, it is important for programs to be able to measure success. One of the quantifiable ways to measure success in athletic training programs is through the pass rate, specifically the first time pass rate, for the BOC examination. Of the 366 CAATE accredited programs during the 2011-2013, the first time pass rate was 78% and the overall pass rate was 90%. Figure 2 below depicts a three year average of the first attempt pass rate from 2011-2013 (CAATE, 2014e).

![1st Attempt BOC Exam Pass Rate](image_url)

**Figure 4. BOC Exam Pass Rates from 2011-2013**

Achieving a three-year aggregate of a 70% first-time pass rate is one of many standards for program accreditation. Correction plans are established by programs that are not able to meet this pass rate in order to examine the quality of the education that programs are delivering and maintain their accreditation status (CAATE, 2014a).

**Employment Market**

According to Lattuca and Stark (2009), the employment market is a powerful external force on programmatic development. As information is heightened about sports
safety, especially at a young age, there is an increased demand for athletic trainers at
Additionally, as society becomes increasingly more active with the middle-aged and
elderly population, the incidence of athletic-related injuries increases, which supports the
need for individuals educated in treating athletic injuries. Injury prevention, detection,
and treatments continue to advance and become more sophisticated and necessary, which
further supports the need for athletic trainers (U.S. Bureau of Labor and Statistics, 2014).

The growth of the athletic training profession is projected to surpass the average
of other occupations. According to the U.S. Bureau of Labor and Statistics (2014),
employment of athletic trainers is projected to grow 21 percent from 2012 to 2022. Yet,
this will only result in about 5,400 jobs over that period of time because of the nature of
the small occupation. These projections are positive for the outlook of the profession of
athletic training as well as for athletic training programs. Yet, the concern at hand is the
state of the current educational preparation of athletic training students and if a
baccalaureate degree is substantial enough to produce quality practitioners.

Figure 5, shown below was extracted from the white paper (Richardson et al.,
2013) and it helps to demonstrate the number of professional programs per year by
degree type. As noted previously, the disbanding of the internship route was announced
in 1996 and the growth of baccalaureate programs following this change is clearly
evident (Richardson et al., 2013).
Figure 5. Professional Programs Per Year by Degree Type

As Figure 5 shows, there has been a significant change in the number of bachelor’s degree program compared to master’s degree programs. The increase in the number of bachelor’s level programs has brought into question the efficacy of the education that is being delivered in the educational programs. Figure 6, below, shows a comparison of the number of programs, comparing athletic training programs to other allied health professions (Richardson et al., 2013).

<table>
<thead>
<tr>
<th>Program</th>
<th>Number of Programs</th>
<th>Average Total Enrollment in Professional Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Athletic Training</td>
<td>360</td>
<td>34</td>
</tr>
<tr>
<td>Physical Therapy</td>
<td>218</td>
<td>119</td>
</tr>
<tr>
<td>Occupational Therapy</td>
<td>149</td>
<td>108</td>
</tr>
<tr>
<td>Physician Assistant</td>
<td>181</td>
<td>108</td>
</tr>
<tr>
<td>Nursing</td>
<td>604</td>
<td>280</td>
</tr>
<tr>
<td>Medicine</td>
<td>171</td>
<td>483</td>
</tr>
</tbody>
</table>

Note: Average enrollment data are based on the most current available and are provided only for comparative purposes.

Figure 6. Number of Programs and Total Enrollment for Allied Health Professions

A major concern right now within athletic training education is the idea that the education programs are being viewed as a “destination profession” or a stepping stone to other health professions (Richardson et al., 2013). According to Mazerolle et al. (2012), 25% of graduates of baccalaureate professional education programs do not intend to
practice as an athletic trainer but plan to use their skills to explore another allied health care profession post-graduation. Some individuals view this as flattering and think that it is positive to have individuals in other health fields understand the work and need for athletic trainers. Others argue that it is negative for the profession and that students should be able to use their experience as an undergraduate student to fully explore career opportunities and then commit to athletic training in post-professional work. This divide further supports the attention dedicated to a potential change in the degree requirement for athletic trainers (Richardson et al., 2013).

On the contrary, a study was conducted on program director’s belief of career retention for graduates from professional programs. Program directors believe that an average of 98% of individuals believed to intend to stay in the athletic training profession. This perhaps indicates that graduate-level students have a stronger commitment to the profession and are more likely to practice as athletic trainers. However, no research studies have been conducted that directly examine this from a student perspective (Mazerolle et al., 2012; Richardson et al., 2013). Regardless of degree program, it is thought that graduate students are more mature and self-directed. Age and maturation levels improve critical thinking strategies which are thought to be an added benefit for athletic trainers working in the field (Artino & Stephens, 2009; Richardson et al., 2013).

The reports from the U.S. Bureau of Labor and Statistics support the growth and development of athletic training programs, especially with the current discussion on the direction of the required degree. The number of baccalaureate level professional programs greatly outweighs the number of master’s level professional programs. However, it remains to be researched if individuals with a master’s degree are more
qualified, successful and effective athletic trainers than those who begin entry-level practice straight out of a bachelors program.

**Government**

One of the final external influences on programmatic development in higher education is that of the government. The influence of the government is different from that of the others listed previously because it affects the institution as a whole and then impacts individual program changes. The federal government acts to recognize activities and recommendations that have been established by various accreditation agencies (U.S. Department of Education, n.d.). For some state funded public institutions, changes in existing programs need to be reviewed by state educational boards to avoid any costly impact on state resources (Stark and Lattuca, 2009). Therefore, if one of the 331 baccalaureate professional programs wants to follow the CAATE’s protocol for a substantive degree change, there is likely to be a great deal of impact from government influences. Additionally, governmental influence is found at small independent baccalaureate colleges with the development of academic programs, although it is not as profound at other public institutions.

Government powers impact the creation of programs specifically because of the ties to accreditation. Accreditation, as discussed previously, is essential for individual programs because it helps establish legitimacy within institutions and for prospective students and employers. By establishing accreditation, institutions can grant degrees and certifications based on the requirements of the accrediting body, the institution, and the government. Accreditation additionally influences a programs access to federal funds (CHEA, 2003).
Internal Influences

Program development at institutions of higher education is possible because of a collaboration of the internal and external influences. According to Stark and Lattuca (2009), missions, goals, history, and culture of institutions help shape the institution and foster new ideas. As the idea is examined of altering the degree requirements for athletic training programs across the United States, it is important to look at the impact of the internal structure of the institution and the program as a whole. The internal influences that impact program development in higher education are as follows: institutional control and organizational infrastructure, purpose, curriculum, instructional processes, instructional resources, and evaluation (Stark & Lattuca, 1997; Stark & Lattuca, 2009).

Institutional Control and Organizational Infrastructure

Institutional control and infrastructure is impacted by the role of the structure of governance that is in place. Governance is referred to as “the structures and processes through which institutional participants interact with and influence each other and communicate with the larger environment” (Birnbaum, 1988, p. 4). Governance influences the curricular structure at institutions of higher education which impacts the curricula offered and the overall type of culture. Stark and Lattuca (2009) state that, Curriculum proposals that originate in an academic department may undergo review at several levels, first by college- and university-level curriculum committees, and in some cases, also by the faculty senate and the institution’s governing board, which is legally responsible for oversight of the institution’s overall educational program and its quality (p. 73). Within many institutions, shared decision making is thought to be split between trustees, presidents, administrators and faculty (Stark & Lattuca, 2009).
According to Birnbaum (1988), boards of trustees establish institutional missions, and have legal obligations and responsibility for an institution’s academic programs, but must leave most day-to-day decisions regarding the academic program to faculty and administrators (as cited in Stark & Lattuca, 2009, p. 72). When curricular changes are on the horizon, the board of trustees typically receives notification from the other internal entities and assist in making decisions that are in the best interest of the institution (Stark & Lattuca, 2009).

When new academic and units are desired, many times the president and the board of trustees combine together to consider the decisions established by the other members of the institution. Both the president and the board of trustees have an established obligation to consider the additional external stakeholders such as legislators, accreditors, and potential donors (Stark & Lattuca, 2009). These stakeholders have a profound impact on the creation and elimination of programs. According to Stark and Lattuca (2009), “for public institutions in some states, new programs or even changes in existing programs may be subject to statewide review to avoid costly duplication of state resources” (p. 75). Resources are an important aspect of the organizational infrastructure that must be considered when new programs are proposed.

Curricular decisions are heavily influenced by the resources available at the institution, both at traditional public and private institutions (Stark & Lattuca, 2009). There is a perception of priority in regards to the distribution of resources which often impacts morale and the dispersion of funds. According to Stark and Lattuca (2009), “public institutions rely more heavily than independents on state appropriations, but both public and independent institutions are affected when the federal and state governments face budget shortfalls” (p. 76). The appropriations allotted and additional financial
resources are all managed differently. The differentiation in autonomy of resources and governmental control greatly influences an institution’s ability to change their athletic training degree program from a baccalaureate level to a graduate level which could create additional challenges for institutions desiring to meet the proposed degree change.

The type of institution plays a large role in the development or restructuring of new programs. Stark and Lattuca (2009) believe that the development of academic plans depends largely on whether an institution is public or independent. Colleges that are independently controlled typically have more autonomy with the structure of academic programs than public institutions, primarily due to the influence of federal and state governments (Stark & Lattuca, 2009). Public and independent institutions are able to provide similar academic programs, despite size and financial resources. However, the proposed degree change for athletic training could have a dramatic impact on independent institutions and will also potentially impact the Carnegie Classification of the 331 institutions that host athletic training programs.

The Carnegie Classification was developed in 1970 in order to establish a taxonomy to differentiate types of institutions. It was originally intended for the purpose of research classification but has also developed into being used for policy formation (Stark & Lattuca, 2009). The basic classification is the simplest and is as follows (Stark & Lattuca, 2009):

- Associate’s colleges: offer associate degree and certificate programs
- Baccalaureate colleges: primarily undergraduate colleges that emphasize baccalaureate degree programs, but in the revised classifications, may also award associate’s degrees and certificates
• Master’s colleges and universities: offer a wide range of baccalaureate programs and are committed to graduate education through the master’s degree at least in selected fields. In previous classifications, these institutions were referred to as comprehensive institutions.

• Doctorate-granting institutions: offer a wide range of baccalaureate programs and are committed to graduate education through the doctorate level. Those with greater emphasis on research are often referred to as research universities.

• Special focus institutions: vary in the level of degrees offered (from bachelors to doctorates) but award at least half of their degrees in a single field of study (p. 69).

The CAATE accredited programs are hosted at baccalaureate, masters, and doctorate-granting institutions only.

Purpose

Athletic training programs were established to educate individuals on how to be competent entry-level athletic trainers by providing a guiding curriculum (Delforge & Behnke, 1999). The required athletic training curriculum has changed many times over the years, but it currently encompasses competencies to be met through classroom and clinical education. According to Bratta (2014),

Students are taught the material in the classroom setting and allowed to practice in the laboratory setting. Then they apply their knowledge in real life setting, under the direct supervision of a preceptor. Learning in this fashion allows the athletic training student an opportunity to gain confidence in performing the skills required in a laboratory scenario (p. 3).
The requirements from all three external accrediting agencies (CAATE, BOC, and NATA) have a profound impact on the purpose of athletic training programs and also directly influence the curriculum and sequence of delivered content. The curriculum is established so that individuals are able to accurately pass the national BOC examination and be quality entry-level athletic trainers.

**Curriculum**

A curriculum is an educational plan that always has a purpose and is always considered practical (Stark & Lattuca, 1997). As stated, the athletic training education curriculum is designed to prepare students for the BOC examination and be competent entry-level athletic trainers. Recently, the exam format transitioned to a single, computer-based examination that incorporates scientific foundations, practical applications, and written simulation. This change with the certification exam has aligned the process with that of physicians as well as physical therapists (Bratta, 2014). Each host institution independently develops curriculum; yet, each institution is required to follow the guidelines established by the external accrediting agencies. The 2012 Professional Standards by the CAATE, the 6th Edition Role Delineation Study from the BOC, and the NATA Athletic Training Education Competencies provide the educational content that must be taught both inside and outside the classroom (CAATE, 2014a; BOC, 2014c).

**Instructional Processes**

**Classroom Education.** Classroom education allows students the opportunity to gain the required knowledge in a typical classroom setting; however, athletic training education is not typical given the clinical education requirement (Bratta, 2014). Typically, the curricula is designed to allow the student to progressively gain a further
depth of knowledge in the academic program (Stark & Lattuca, 2009). In order to meet the requirements for selective admission into the athletic training program, most students in baccalaureate programs begin enrolling in pre-requisite courses during their first-year. Once accepted into the athletic training program, they continue with athletic training specific curriculum content for two to four years. Students enrolled in masters programs have already completed pre-requisite requirements before beginning the athletic training specific curriculum as individuals already possess a bachelor’s degree. Therefore, most individuals that seek this post-baccalaureate entry-level route take two years to finish their degree (Richardson et al., 2013).

Classroom education is focused on the following content areas: evidence-based practice, prevention and health promotion, clinical examination and diagnosis, acute care of injury and illness, therapeutic interventions, psychosocial strategies and referral, healthcare administration, and professional development and responsibility (CAATE, 2014f). These areas have been deemed to be the basic categories of knowledge individuals must possess to be entry-level athletic trainers. The evidence-based practice component has recently developed into the curriculum as it is considered a key competency for all health care practitioners (Fish et al., 2011). The information learned in the classroom is applied in the student’s clinical education experiences. Other associations affiliated with allied health care professions, such as Occupational Therapy, provide a guided framework for curriculum content and have adapted to adjust for alterations in the educational requirement (AJOT, 2010).

There is growing concern that the coursework for the athletic training curriculum does not allow students to enroll in elective coursework, complete minors, participate in athletics and other elective activities. The typical 120 semester credit hour bachelor’s
degree requires between 33-42% of the degree to be covered by general education requirements and is often greater at liberal arts institutions (Richardson, et al., 2013). The completion of these general education courses as well as profession-specific coursework is thought to inhibit student’s ability to gain a firm foundational knowledge of scientific courses, which can limit their knowledge when entering the profession (Richardson, et al., 2013). Therefore, it is proposed that graduate education is a more suitable route for athletic training education as it grants specific time to be dedicated to athletic training knowledge and clinical education.

Clinical Education. Clinical education became an integral part of the athletic training curriculum during the 1970s when the NATA Professional Education Committee released a list of objectives that athletic training students should be accomplishing in order to be acquainted sooner with the demands of the profession (Weidner & Henning, 2002). According to Weidner and Henning (2002), clinical education can be described “as the portion of the athletic training student’s professional preparation that involves the formal acquisition, practice, and evaluation of clinical proficiencies through classroom, laboratory, and clinical experiences in medical care environments” (p. S-222). Clinical education is a progression, allowing students to develop technical skills and competence and also interpersonal skills, social skills, and appropriate attitudes (Weidner & Henning, 2002).

Weidner and Henning (2002) found that entry-level certified athletic trainers perceived that about 53% of their development came from their clinical education. In physical therapy, another allied health care profession, a similar estimation has been reported at 23-30%. This represents the value of ensuring quality clinical education
experiences. Clinical education is vital in order to produce competent practitioners who are able to apply their classroom experiences to vast real-life situations.

When involved in clinical education, athletic training students receive direct supervision from preceptors. Preceptors are required to have visual and audible contact with athletic training students during all evaluations, treatments, and rehabilitations of patients. This helps reduce the liability of malpractice and also helps assist and reassure the athletic training student (Bratta, 2014; Weidner & Henning, 2002). These clinical experiences are based on measurable objectives and are required to be supervised by trained preceptors; however, students have reported struggles with the time commitment and also a lack of respect during their clinical experiences. Additionally, students may be delivering health care before fully mastering the skills necessary to do so effectively (Heinerichs & Gardner-Shires, 2011; Miller & Berry, 2002; Weidner & Henning, 2002).

Yet, clinical education is a critical component of an athletic training student’s preparation in order to prepare them for the full job responsibilities of a certified athletic trainer.

Physical therapy programs recognized that approximately one-third of the curriculum was clinical education and that a transition to a graduate level degree would require significant changes in the expectations of ability for graduate students (Kelly et al., 2011; Rindflesch et al.; Sass et al., 2011). One area of discrepancy was the length of time that students are involved in a clinical rotation, or internship. It is thought that increasing the amount of time a student spends in an internship can increase the student’s understanding of actual practice while also providing a consistent benefit to the host (Kelly et al., 2011). In athletic training, Richardson et al. (2013) believe that the current baccalaureate structure does not allow for students to spend a worthwhile amount of time in clinical education because of the demands of classroom education due to accreditation
requirements. Graduate-level athletic training programs report 1067± 210 clinical hours whereas undergraduates report clinical education hours at 906 ± 528 (Richardson et al., 2013).

Implications of Extended Classroom and Clinical Education. As stated previously, many individuals are concerned about the implications of a transition to a graduate level degree. One concern is the requirement of a master’s degree will lead to students having decreased time in the curriculum, as well as concern of the cost of tuition and financial implications following graduation. Although there is no empirical evidence within the field of athletic training, a study was conducted which examined physical therapy students following the move to the doctor of physical therapy (DPT) requirement, which is considered an entry-level degree. Tuition costs for graduate education were found to be a concern for DPT students as there was concern with student debt after graduation impacting loan repayment, saving, lifestyle, and job and career choices (Thompson, Coon, & Handford, 2011). The research conducted by Thompson, Coon, and Handford (2011) indicate that physical therapy graduate students primarily financed their education using student loans and the majority of individuals reported a salary between $50,000 and $60,000 with a graduate level degree. The National Athletic Trainers’ Association (2012) reported an average salary of $51,144 for individuals with their master’s degree.

The financial implications of eliminating a route through undergraduate education have been demonstrated in physical therapy education and will additionally be present if the field of athletic training establishes a requirement for graduate education. The individuals who created the white paper acknowledged that the impact of the transition to graduate-level professional education on compensation levels is difficult to predict.
However, it is acknowledged that a higher degree means a higher level of learning and expertise, which could translate into higher compensation (Richardson et al., 2013).

**Instructional Resources**

**Faculty.** Faculty members plan, prepare and deliver the courses they offer. Additionally, faculty members evaluate their courses and adjust texts, readings, exercises, assignments and assessments to improve the education the students receive (Stark & Lattuca, 2009). Historically, many athletic training programs did not have full-time instructors. The head athletic trainer was used to teach athletic training courses as well as provide clinical supervision (Meyer, 2005). Given the history of athletic training, this approach to education is not surprising; full-time educators of athletic training were sparse when athletic training education was established (Delforge & Behnke, 1999).

Faculty members in allied health fields are unique in that they must address all of the traditional roles of faculty members, yet also maintain clinical competence in order to teach courses with hands-on requirements and stay up to date with changes in the curriculum. Yet, many institutions do not recognize the amount of work it takes for these faculty members to maintain their clinical competence in addition to their classroom requirements (Crist, 1999; Meyer, 2005).

Currently, the CAATE accredited programs are required to have a program director who holds faculty status at the institution. Additionally, accredited programs are required to have at least one full-time equivalent (FTE) faculty member, in addition to the program director. This FTE faculty member can also hold the role of clinical education coordinator and supervise the clinical education for all students. The only other faculty requirement is that institutions are instructed to “maintain student-to-faculty rations that
allow for effective instruction and evaluation as consistent with health care programs” (CAATE, 2014g).

The impending change in degree for athletic training programs has the potential to have a profound impact on a program’s faculty members. As institutions transition from providing a baccalaureate degree to a graduate degree, there is an increased expectation for faculty members to hold terminal degrees and be established faculty members (Stark & Lattuca, 2009). Program directors and faculty members are often naive about internal processes at institutions. While there is no research to support this claim, the lack of a terminal degree and lack of knowledge about institutional processes may create significant challenges when institutions are beginning the development of an entry-level master’s program.

It is thought that as the profession of athletic training grows, the need for competent, qualified instructors also increases (Richardson et al., 2013; Rooney, 2013). The proposed changes highlight the idea that pedagogical knowledge should be incorporated into professional athletic training education curricula in order to help promote and encourage individuals to seek educational journeys which would also align athletic training with other allied health care professions like nursing, occupational therapy and physical therapy (Craig, 2006; Hertel, West, Buckley & Denegar, 2001; Rich, 2009; Rooney, 2013).

**Placement of Athletic Training Programs.** There is no standard placement for athletic training programs at institutions of higher education. Most professional athletic training programs are housed in general-academic departments like physical education, kinesiology, or exercise science. The thought is that this has developed because of the history of athletic training and its involvement with physical educators. According to
Richardson et al. (2013), 21% (74) of the 355 professional athletic training programs are housed in colleges/schools with other peer health professions. Additionally, 13% (45) are in multidisciplinary departments, but athletic training represents the only health profession discipline. Interestingly, athletic training is the only health profession at 16% (57) of institutions. When considering the number of athletic training programs at smaller, non-research institutions, this number makes sense.

In 1996, the NATA Board of Directors recommended that athletic training be housed within colleges/schools with other health professions in order to promote continuity and recognition with other allied health professions. To date, this has not been achieved; yet, there are numerous benefits for individuals involved in all health disciplines if this were to be achieved (Richardson et al., 2013). If athletic training were to align with other health professions, there would be added benefits for faculty members that include administrative benefits and general position recognition. Clinical professors are more recognized at institutions in other health care departments than within departments of education or physical education (Richardson et al., 2013). Students would have the added benefit of being able to interact with and understand more about other allied health care professions in which they will frequently be interacting with throughout their career as athletic trainers. The thought is that the transition to graduate-level education will make this transition process easier and will ensure alignment with other health care professions (Richardson, et al., 2013).

Evaluation

The final internal aspect discussed by Stark and Lattuca (2009) is that of evaluation. Evaluation is necessary in academic planning in order to make adjustments to specific courses and program plans, evaluate the curriculum, and ensure consistency with
the needs of external influences (Stark & Lattuca, 2009). Formative evaluation involves measuring student outcomes and satisfaction as well as assessing faculty initiatives. As Stark and Lattuca (2009) state, external forces often dictate the standard reviewing procedures for academic programs, which is the case with athletic training programs.

**CAATE Accreditation.** In addition to the BOC and the NATA, the CAATE accreditation is the most influential agency on professional athletic training programs. The expectations and recommendations of the CAATE have been discussed at great length throughout this literature review and therefore will not be reiterated. Without meeting the evaluative needs dictated by the CAATE, athletic training programs would not exist at institutions of higher education.

**Retention.** Retention can be considered an important aspect of evaluation both on a programmatic level as well as for the profession as a whole. Institutions and programs strive to retain their students and student retention has been a focus of administrators for many years (Dodge, Mitchell, Mensch, 2009). Student retention in athletic training programs has been minimally studied, but the research that has been conducted supports the idea that classroom education is important but clinical education and integration is very important in the retention of students (Bowman, T. G. & Dodge, T. M., 2013; Deil-Amen, R., 2011; Dodge, Mitchell, Mensch, 2009). For athletic training, retention in the academic program is just as important as retention in the profession once graduating.

A study conducted by Mazerolle et al. (2012) suggests that 25% of graduates from baccalaureate programs do not intend to practice as athletic trainers. The study demonstrated that students leave athletic training because of a lack of respect for the profession, perceived time commitments, and using the degree as a gateway for other
professions. Some students believed they misunderstood the job responsibilities of an athletic trainer and additionally were not satisfied with the perceived lack of respect for athletic trainers by the public and other health care professionals. The same study by Mazerolle et al. (2012) found that program directors suggest that 98% of graduates from a master’s level professional program intend to stay within the profession. However, no research has been conducted which examines this from the standpoint of the athletic training students. Additionally, no research has been conducted which examines the retention of athletic training students from either baccalaureate or master’s programs post-graduation.

The individuals who are proponents of the substantive degree change for athletic training education professional programs believe that graduate students are a better fit for the demands of the athletic training education curriculum (Richardson et al., 2013). Research has demonstrated that graduate students are considered more mature, self-directed and independent. These qualities, due to age and maturation, account for higher levels of self-directed learning, less procrastination, and greater critical thinking strategies (Artino & Stephens, 2009). These traits of graduate students have been used to support the degree change as the thought is that graduate age students will be better prepared to face the classroom and clinical demands of athletic training education and also more likely to remain within the profession due to their previous educational experiences.

Summary

When compared to the development of higher education as a whole, athletic training education is relatively new. Since the first formalized curriculum was designed in 1950, athletic training education has undergone significant changes that have impacted
the external accrediting bodies, the delivery of the content, the role of the faculty
member, and the perception of athletic training with other allied health care professions.
Yet again, there is a proposal to change the educational climate for athletic training to
requiring a master’s degree to be eligible for the national certification examination.

The research does not support any claim that baccalaureate athletic training
programs have been failing to produce quality athletic trainers. Yet, the proposed degree
change would eliminate the route for athletic trainers to obtain their certification with a
bachelor’s degree. The information given in the white paper relays that graduate students
are more prepared educationally and developmentally to handle the demands of entry-
level athletic training education, which will in turn impact the growth and development of
the profession (Richardson et al... 2013). However, it is important to consider the
internal and external influences that would impact the change to and implementation of
the proposed degree change. A change of degree would not be a simple process and
would require the influence, support, and approval from many different constituents.
CHAPTER III - METHODOLOGY

The proposed changes for the degree requirement highlight the fact that there is a lack of research examining the components influencing the development of athletic training educational programs. The purpose of this research is to examine the internal and external influences that have impacted the creation of current entry-level master’s programs that hold accreditation from the Commission on Accreditation of Athletic Training Education (CAATE). A multiple case study approach was used to guide the collection of data and provide a rich, in-depth examination of the processes, challenges, and triumphs of the involved athletic training programs.

Research Design

A multiple case study interpretivist qualitative research design has been selected to guide this research. Qualitative research is used to understand context by highlighting the stories of the participants (Creswell, 2013). The purpose of qualitative research is to explore and provide meaning for a social or human problem (Creswell, 2009). To carry out qualitative research, one must create emerging questions and procedures, collect in-depth data, inductively or deductively analyze data, and make interpretations of the meaning of said data (Creswell, 2009). According to Marshall (2011), qualitative research is “pragmatic, interpretative, and grounded in the lived experiences of the people” (p. 2). The data collected for this research was used to explore the objective processes of individual entry-level master’s athletic training programs that have received accreditation from the CAATE within the last five years.

A multiple case study design was used to examine the processes from various institutions of higher education. A case study is a way of studying a “real-life, contemporary bounded system (cases) over time, through detailed, in-depth data
collection of multiple sources of information…” (Creswell, 2013, p. 97). A case study design is most appropriate for this research because of the need for in-depth analyses of multiple institutions and potentially multiple individuals at each institution. Interviewing multiple individuals has allowed the opportunity to further explore the processes necessary for the development of entry-level master’s athletic training programs.

A multiple case study design was used to provide a deeper depiction of the data through collecting extensive amounts of information such as interviews, observations and documentation (Creswell, 2013). Compelling evidence is drawn out of all of the cases and used to create cross-case conclusions (Yin, 2009). The multiple sources of information that were used for this research included interviews and publically available information from program websites. All program directors were asked to share the self-study for the CAATE, although no institutions agreed to share that information.

The information that was gathered included curricula, admission criteria, clinical education requirements, and program handbooks. According to Yin (2009), document analysis can help verify information in an interview, provide specific details to verify information from interviews, and the researcher can make inferences from the data from documents. Triangulation was used to examine the information from the myriad of information that was collected. Triangulation is the process of examining multiple sources of documents and is valuable in qualitative research to help establish accuracy of the information gained from both the documents and the interviews (Creswell, 2009).

**Population and Sites**

Currently, there are 35 entry-level master’s programs accredited by the CAATE (CAATE, 2014e). Initial identification of sites came from examining the CAATE’s website and identifying institutions that are listed as hosting entry-level master’s
programs. In addition to identifying the entry-level master’s sites, I was able to gather the year the program received accreditation. If I was unclear about the initial accreditation year, I contacted each of the program directors to ask for their year of initial accreditation since my inclusion criteria involved institutions that gained accreditation within the last five years. Of the 35 programs, nine programs fit the desired inclusion criteria. The time frame for the inclusion criteria was selected in order to provide an up-to-date examination of the process of each of the institutions.

Program directors at the qualifying institutions received an initial email highlighting the details of this research study to determine level of interest, which resulted in response from one program director. After one week of sending the email, I followed up with a phone call to each of the program directors in which had not responded. The phone call correspondence resulted in three additional scheduled interviews. To continue to the push to gather diverse data, I sent one additional email to the institutions I had no correspondence with, which resulted in two additional interviews. The institutions represented a diverse group and purposive sampling was not necessary. Purposive sampling involves selecting sites that will help the researcher best understand the phenomenon under investigation (Creswell, 2009; Marshall, & Rossman, 2011).

**Data Collection Procedures**

Western Michigan University’s Human Subject Institutional Review Board (HSIRB) determined that this research does not require approval (Appendix E). Program directors were contacted through email initially and a copy of the text can be found in Appendix A. Each program director that I had not heard from received a phone call after one week of the email being sent to reiterate the nature of the research and to determine
the level of interest in participation. When I received an email back from the program directors, I established a time to conduct the interview. I suggested in-person, phone or videoconferencing; however, all participants chose a phone interview.

A semi-structured interview protocol was followed and the details of that protocol can be found in Appendix C. A semi-structured interview allows the opportunity for questions to guide the conversation that were relevant to my research questions and interests; yet, it also allowed for open discussion. This was a very successful way of structuring the interviews because I was able to have rich conversation with the participants which provided relevant information. Prior to conducting the semi-structured interview, I read a brief informative narrative (Appendix C) to the participant which explained the purpose and scope of the research. Additionally, this narrative informed the participant that their involvement was voluntary and they had the ability to discontinue the interview at any time with no penalties or negative ramifications.

Each interview was recorded using a handheld digital recording device and the recordings were stored on a password-protected computer. All participants consented to the ability for their interview to be recorded. Each interview was transcribed after it was completed. I transcribed three interviews and the rest of the interviews were submitted to a professional transcription agency. After each of the interviews were transcribed, I sent the digital file to the interviewed person for them to check for accuracy in the representation of our conversation. Member checking is a technique for validation and involves the participants being able to review the findings (Creswell, 2013).

During this interview, I asked for identification of other individuals at the institution that were instrumental in establishing the ELM program. This process is known as snowball sampling and was used to gain a richer depiction of the processes at
each institution (Marshall & Rossman, 2011). In addition to the interview, I asked each participant for program documents such as self-studies, curricula, program goals and mission, and admission requirements during the phone conversation and through email. I did not receive a self-study from any institutions and I was told that the publically available information on the institution’s website represented the most accurate data about their institution. These documents were not a required aspect of participation; however, it is still unique that I did not receive additional materials from any participants. Pseudonyms were used for each institution and individual to assure confidentiality and anonymity.

**Data Analysis Procedures**

The purpose of analyzing data within qualitative research is to establish patterns and themes from the collected data (Creswell, 2013, which provided an in-depth understanding of the internal and external influences, guided the development of entry-level master’s programs for all six CAATE accredited institutions.

Creswell (2009) suggests that analysis of qualitative data involves the researcher spending considerable time describing the context, developing chronological themes, and grounding the data in the literature. Prior to each interview, I had explored the institutions’ websites as well as the Carnegie Classification of Institutions of Higher Education in order to help understand the intricacies of the programs. For each institution, I examined all of the publically available information to have a firm understanding of the department location, faculty structure, the curriculum, clinical requirements and other information that was applicable to this research.

Once I received verification from the participants that the transcription was accurate, I began coding the document to establish themes for each institution.
According to Marshall and Rossman, (2006) “coding is the formal representation of analytical thinking. The tough intellectual work of analysis is generating categories and themes”, p. 160. All documents were read and coded twice to ensure thoroughness. Next, an inductive analysis was conducted in order to piece together the findings and process the information (Hatch, 2002). Inductive analysis resulted in the development of patterns and themes about the influences that impacted the development of the six involved entry-level master’s programs. The developed themes were analyzed to represent each institution as well as cross-institution themes (Creswell, 2013).

**Reflexivity**

Discussing reflexivity is an integral aspect of qualitative research. Reflexivity is a way for the researcher to “position themselves” and discuss self-awareness and self-exposure (Creswell, 2009; Creswell, 2013). I have been a certified athletic trainer for six years and received my bachelor of arts in athletic training degree from a private, liberal arts institution in the mid-west. Following completion of this degree, I obtained my Masters of Education in Athletic Training from a large public university on the east coast. This institution qualifies as one of the 12 CAATE accredited post-professional masters programs in the United States. Following graduation from this institution, I have held employment at two institutions, each as an assistant athletic trainer. As a certified athletic trainer, I have also had the opportunity to be an adjunct instructor and approved preceptor for athletic training students. Currently, I am out of the clinical and educational setting while pursing my doctoral degree.

I consider myself to be somewhat involved with the profession of athletic training; although I have always desired to be a part of the leadership. I have served as a committee member for our conference’s athletic training board, I am an Item Writer and
compose questions for the BOC examination, and I have attended many professional conferences. I am published in the field of athletic training for clinical research and have presented at the national conference and will do so again in 2015.

My initial reaction to the proposed degree change was one of anger, fear, and misunderstanding. However, I have never been directly involved with an entry-level master’s program and previously knew very little about the degree. From my professional experience, it seemed that entry-level master’s students were not given a second look when applying for jobs so I have had a negative attitude about their ability to produce quality students. I worked really hard to be open-ended and open-minded with the conversations I had with the participants and not let my biases hinder our conversations.

After conducting this research, I understand the benefits of the proposed degree change and many of my feelings have been changed. I do agree that the profession of athletic training needs to align better with other peer health professions in order to gain respect and understanding, especially as our medical field advances with third-party reimbursement and the continued need for athletic trainers in the secondary school setting. Even though I think this degree change will be positive for our profession, it saddens me that many quality undergraduate programs will not be able to support a graduate level program. Additionally, I think there are some significant financial barriers for students; however, it seems that students having education loans is the norm in 2015. If the degree change is mandated, I think there will need to be significant conversations about how to establish quality programs to best educate our future athletic trainers.
Limitations

Case study research is unique in that there is no standard format for conducting or reporting (Merriam, 1988, as cited in Creswell, 2013). With case study research, it is difficult to establish the appropriate number of candidates in order to fully illustrate the story at hand (Creswell, 2013). I would have preferred to have participation from all nine qualifying institutions to gain additional information and fully be able to depict each institution’s journey for developing the athletic training program. Additionally, interviewing has limitations as it takes many participants a significant amount of time in order to establish trust and transparency with the researcher (Marshall & Rossman, 2011). It was challenging to get some individuals to have enough open time in their schedule to support an hour-long interview and as a result, I feel that the data could have been richer.

An additional limitation is that the topic of a degree change to entry-level master’s education is well-discussed right now in the profession. Even though each of the participants are currently professionally involved with an entry-level master’s program, the relevance of the topic caused the conversations to become off balance and focused on what the accrediting bodies in our profession are not doing. While this created interesting conversations, it steered the topic away from the actual development of the programs.

Summary

A multiple case study qualitative research design was used to explore the research questions and the factors that have influenced the development of entry-level master’s programs. Of the nine institutions that qualified for this research, six institutions were examined and the implementation of snowball sampling resulted in a total of 11 interviewed participants. Themes were developed which discuss the factors that have
influenced each of these institutions and have also led to a potential guideline for institutions that are considering creating an entry-level master’s athletic training program.
CHAPTER IV - RESULTS

The purpose of this research was to examine the internal and external influences that have impacted the creation of CAATE accredited entry-level master’s programs that have achieved initial accreditation within the last five years. Through the use of multiple case studies, I was able to provide an explanation for the following research question and sub-questions:

1. What internal and external influences have impacted the creation of the examined the CAATE accredited entry-level master’s programs?
   a. How are recent entry-level master’s programs being structured to incorporate an undergraduate education component?
   b. What are the financial implications of the creation and sustainability of an entry-level master’s program?
   c. How are faculty load and structure impacted with implementation of an ELM program?
   d. What are the outcomes of students graduating from entry-level master’s programs?
   e. What are institutions using to promote competitive admissions?

Information was gained through semi-structured interviews with individuals involved with the programmatic development and sustainability of currently ELM programs. A total of six program directors at six institutions were interviewed. Through the use of snowball sampling, five other interviews were conducted, resulting in interviews with 11 participants. The participants are described in the information below. Emerging themes were revealed through data analysis and these themes helped to provide understanding to the influences that impact the creation and sustainability of entry-level
master’s athletic training programs. This chapter is dedicated to a full explanation of the institutions and individuals who were interviewed, a discussion of the emergent themes, and exploration of the results of the research questions that were posed prior to conducting the research.

**Institutions and Participants**

Nine institutions fit the inclusion criteria and through direct correspondence I identified six program directors who were interested in participation. Each of the institutions will be described in detail in the following text.

**Light College**

**Institution Demographics.** Light College is a private liberal arts institution that has an enrollment of less than 1800 students. The institution is classified as Baccalaureate Colleges – Diverse Fields by the Carnegie Classification of Institutions of Higher Education. Further demographics of Light College can be found in Appendix G. The athletic training program at Light College was the first master’s program to be established on this campus and the current program is an entry-level professional master’s athletic training program that results in students achieving a Master of Science in Athletic Training degree. One of the unique features of this 5-year program, is that only students who have obtained a bachelor’s of exercise science degree from Light College are able to apply for the program.

**Participants. Dr. Mary Waters, PhD, AT, ATC, CSCS.** The first participant that was interviewed from Light College was Dr. Mary Waters. Dr. Waters is the program director of the ELM ATP, and she has been at the institution since 2007. Dr. Waters was originally hired at Light College to be the program director for the undergraduate athletic training program, which needed to gain accreditation.
Dr. James Freemont, PhD.  Dr. Freemont is the president of Light College. His presidency began in 2005 when he became president of a struggling institution. According to Dr. Freemont, enrollment at the institution had declined tremendously and the institution was losing a great deal of money. He began to financially invest in the growth of intercollegiate athletics which helped to increase enrollment and ease financial challenges. Simultaneously, he charged the campus community with exploring the possibility of adding graduate work to the established undergraduate education.

Mr. Jordan Johnson, MS, AT, ATC. Mr. Johnson is the head athletic trainer at Light College and has held this position since 2004. As the head athletic trainer, he oversees the medical care for over 1000 student–athletes. In addition to being the head athletic trainer, Mr. Johnson also serves as a preceptor for the athletic training program, meaning he oversees their clinical education and also helps with competencies.

Ms. Jessica Docker, MS, AT, ATC. Ms. Docker is one of the assistant athletic trainers at Light College. She has served as an assistant athletic trainer since 2009 and works primarily with women’s soccer, women’s ice hockey and softball. With her role as an athletic trainer, Ms. Docker also oversees students’ clinical experiences through her role as a preceptor. Because of the athletic teams that she is assigned to, she feels that she has a larger role with the education of the AT students than Mr. Johnson.

Athletic training program development. Undergraduate and graduate education. When President Freemont came to Light College, there was an undergraduate athletic training program and these were his thoughts,

It was unaccredited which is, in my opinion, really unethical to have unaccredited programs for students because they may come in thinking that they’re going to end up a trainer and they go to an unaccredited program and realize ‘you know, I
can’t sit for the exam. I don’t have the information I need to pass the exam.’ And so, I knew that we had to make large investments in the program or we weren’t going to keep the program. Because I was never going to have an unaccredited program at the college I was working at.

After beginning his position, he created a national search to find someone who would be able to complete the work necessary for CAATE accreditation, and that’s when Dr. Waters was hired. In 2010, the undergraduate athletic training program gained accreditation from the CAATE. The program was not in place for long when Dr. Freemont put out a call to the institution for ideas for graduate level programs.

Originally, she had created a proposal for a post-baccalaureate master’s athletic training program, but the proposal was rejected because the faculty and Board of Trustees were concerned about the money and infrastructure needed to run the program. Dr. Waters then thought,

Why don’t we not reinvent the wheel, like we always try to do in athletic training? And follow in the footsteps of what some of the other professions that have been successful in making a transition and do a similar model.

After the consideration about transitioning to an entry-level master’s graduate degree, Dr. Waters started the process of gaining institutional support and approval.

**Timeline of program development.** As stated, the previous undergraduate athletic training program received accreditation from the CAATE in 2010. Dr. Waters was hired in 2007 and began working on the accreditation process at that point. The proposal was presented to the administration and the Board of Trustees and received a great deal of support. However, there were concerns from the faculty as the addition of this program would challenge the traditional liberal arts degree and because “the faculty really own the
Dr. Waters focused on the financial benefits and the quality of the curriculum. Eventually, the program was approved by the faculty with a 2:1 vote, meaning it was not as controversial as they had thought. The next steps in the process were to gain approval from the external accreditation body and seek accreditation with the CAATE.

**Program location in the institution.** The athletic training program is housed in the department of Exercise Science and Physical Education. There are no other peer health professions at the institutions; however, there are several pre-professional tracks within the exercise science program, such as pre-medical and pre-physician assistant.

**Financial implications of degree.** According to both President Freemont and Dr. Waters, the transition of the ATP was a big business and financial decision. President Freemont believed that the implementation of a program like this was going to cost a lot of money, but because of the concurrent growth on campus, the financial implications were not as much of a concern. Due to the development and accreditation of the undergraduate ATP, most of the resources were already in place to support the structure of an ELM program. The program has smaller class sizes which meant that a significant number of faculty would not be needed to sustain the program, decreasing the need for increased financial resources.

According to Dr. Waters, keeping the students for an additional year meant that additional resources were not needed and that the tuition dollars stayed within the institution. Due to the institutional decision to enact the 5-year model, Dr. Waters said, “we need to remain competitive with the schools around us, particularly the public schools”. To support this, the rate for graduate tuition was decreased by 50%, making graduate tuition less expensive that undergraduate tuition. This cut is the only financial
benefit for master’s students at Light College. There are no graduate assistant positions for students nor are there scholarships available. However, Dr. Waters is pushing to have non-athletic training graduate assistantship positions available on campus as she believes these would be a benefit to both the institution and the master’s programs.

When asked about the financial implications of the ELM program at Light College, President Freemont said, “It’s fantastic, it’s funneling money”. Since Light College is primarily a residential campus, some graduate students remain on campus which establishes revenue through room and board. President Freemont did make clear that it is important for institutions to be committed to the investment of the creation of master’s programs through this quote “…If you’re looking to cut corners, especially at schools like Light, where you’re kind of always looking to save a bit of money, you’re going to screw it up from the start”.

**Faculty impact.** As stated previously, there was push back from current Light College faculty members regarding the acceptance and implementation of this degree program. According to President Freemont, there is a small group of faculty who will embrace change, a small group who will oppose a change, and a big group in the middle who will understand the benefit to the college and support a change. Additionally, he believes that the faculty at his institution were excited about the opportunity to teach graduate students. According to Dr. Freemont,

Graduate students have a very, very common personality trait. It stretches across just about every discipline and every graduate program. And that’s that they’re self-motivated. And you don’t find that at the undergraduate level, the kids just come to college, they’re not, not motivated, but are here for other reasons…
President Freemont feels that faculty support the adaptation of the ELM athletic training program because it meant that other graduate programs would be coming to campus which would lead to interaction with graduate level students.

Yet, President Freemont did admit that there have been jealousies that have started with some of the natural science faculty members, or the pre-med faculty. He said, “And athletic training is sort of like being in student affairs. It’s almost seen as medicine-like, if you will. They love to look down their nose at somebody. So why not look at the athletic trainers”. He believes that some of this comes from the challenges that some athletic training students have with natural sciences courses such as biology, chemistry and anatomy and physiology. According to President Freemont, “And I think that the faculty of natural sciences, you know, like to brand that the athletic training kids are sort of kids that aren’t sharp enough to really be doing well in those classes”. He went on to explain that while some students may struggle with these courses, they are still filing seats in the classes and so it is an internal struggle.

Due to the nature of the small class sizes and the previous baccalaureate athletic training program, the institution did not have to add additional faculty members to support the additional program. It was stated previously that this was a big financial benefit, but it also meant that the faculty members in place were able to support the level of graduate work necessary. Currently, Light College has three faculty members in the athletic training program. Dr. Waters is the only faculty member that has her terminal degree and the other two have a master’s degree; yet, they hold tenured positions at the institution and have the same faculty rates as responsibilities as those with terminal degrees.
According to Dr. Waters, Light College is able to have faculty members with master’s degrees teaching masters level work because of the approval from the external accrediting body and the requirements of the CAATE. Additionally, it is an institutional policy. The other master’s programs at the institution have the same policy that professors with master’s degree are able to teach in graduate level programs. She said that if one of the departments were to challenge that policy and require professors with tenured degrees, the athletic training program would have to adapt also. Currently, the program is hiring for a fourth position in which they are requiring the individual to have an earned doctorate or ABD. According to Dr. Waters, “we are moving in the graduate direction, we should have more than one faculty member that has a PhD or at least a clinical doctorate”.

Dr. Waters believes that the transition to the ELM program has also had positive benefits on the clinical athletic training staff. When used as a clinical rotation, the clinical athletic training staff acts as preceptors, able to supervise students and complete competencies to test their clinical skills and abilities. The clinical staff members that were interviewed, Mr. Johnson and Ms. Docker, agreed that they have been able to increase their staff, but a great deal of it is due to the additional of more sports on campus and the needs of the student-athletes. According to Ms. Docker,

I definitely think it has increased our workload but at the same time, I think that we work together well enough with the athletic training program that we kind of use their assistance and their input to help build our staff. We were able to add more staff members, kind of with their input. We needed somewhere to put our students and if there are two staff members that are overworked…it’s a double edged sword.
While the addition of athletic training students can be sometimes be a time burden to the clinical athletic training staff, they have received many benefits. During the recent accreditation process, Mr. Johnson was pleased that the program assisted with updating emergency action plans. Additionally, both athletic trainers benefited from the implementation and need for evidence based practice for the students’ education.

Prior to the arrival of Dr. Waters and the accreditation of the undergraduate athletic training program, both Mr. Johnson and Ms. Docker taught some courses. Since the program has developed, they do not have as much of an opportunity to teach courses for overload pay. While there is open communication between the education and clinical athletic trainers, Dr. Waters believes that there is some divide between what is being taught in the classroom and what is being covered during clinical education experiences.

**Admissions processes.** Light College is able to promote the fact that this ELM program was the first master’s program on campus. Additionally, it has a unique structure in that it only admits students who have an internally earned bachelors of exercise science degree. According to Dr. Waters, automatic admission occurs for students who are in good standing in the program, which is a benefit in that the student do not have to take the GRE and can remain in the institution they are comfortable with. Additionally, the financial benefits of decreased tuition, as discussed previously, is a positive benefit for students to remain at Light College for an additional year and earn their master’s degree.

Dr. Waters believes that the curriculum has improved since adding the ELM program. According to her, it “breathes a little new life into it because we can be more creative. We aren’t just stuck to the competencies all the time”. Additionally, they have added a lot of new content to the curriculum and are able to teach specific courses such as
manual medicine, biomechanics, and emergency medicine. The courses offered allow students to graduate with an emergency medical technician (EMT) credential and/or their certified strength and condition specialist (CSCS) credential, which diversifies a student’s experience and is beneficial when job seeking post-graduation.

The open structure of the curriculum has allowed them the opportunity to spread required coursework over an extended period of time. This has been beneficial for students to continue to gain a traditional liberal arts experience. Included in that, is the participation in intercollegiate athletics. Students are able to participate in athletics all four years and still gain necessary classroom, research and clinical experiences.

When asked about the coaches’ knowledge of the program, Mr. Johnson and Ms. Docker admitted that the coaches do not have much knowledge about the change in the program structure. However, they have been able to use it as a significant recruiting tool. Because of the high percentage of student-athletes interested in a similar field, coaches have been able to use the five-year master’s programs as a way to increase commitments to the institution because it is inciting for both student-athletes and parents.

**Research.** The Master of Science in Athletic Training program at Light College requires students to complete a thesis through the duration of the offered research classes. According to Dr. Waters, the importation of the thesis is imperative. She said, “My opinion is that if there is a mandate that comes down that the master’s degree is the minimum requirement for athletic training, that programs must have a research requirement in them”. Dr. Waters believes that the research process promotes critical thinking and that the process is very valuable for health care providers.

Mr. Johnson and Ms. Docker have also been impressed by the research that the students have been conducting. The two admitted that the process of completing a thesis
was different than the route they took during their graduate work; however, they are completing research projects that are intriguing from a clinical perspective and the staff athletic trainers have been able to implement. According to Dr. Waters, the benefit of these research projects has also been felt by the program graduate. At this time, the program has only graduated one master’s student, but he told Dr. Waters that his potential employers were impressed that he had obtained his master’s degree in five years and had also completed a thesis.

Clinical education. Light College is located in a small, rural area which has created a challenge for Dr. Waters to find unique clinical education sites for the students as they transition into graduate-level work. During their undergraduate clinical experience, students typically stay closer to campus and then are able to travel further away for their graduate clinical experience. Increasingly, students able to go further off-campus for their clinical rotation when they have finished their data collection and are in the writing stage of their thesis. This has allowed for the implementation of unique experiences for the students and she has been able to train preceptors through video conferencing.

Dr. Waters admits that many of the preceptors believe that students are not getting enough of an immersion experience and therefore, not enough clinical hours and enough education. Much of this is based off the fact that these athletic training students are taking a different route to their degree than many of the preceptors did. Mr. Johnson said, “Clinically, they are still pretty green, their skill is about the same. But they are a more mature student and haven’t switched majors. The commitment level is much higher”. Because of these intangible benefits of being a graduate student in their clinical experience, both staff athletic trainers admit that they are able to allow the students to
“spread their wings” more because they have developed a trusting relationship over their time as an undergraduate student.

**Poseidon College**

**Institution Demographics.** Poseidon College is a private institution that has an enrollment of around 4,000 students. The Carnegie Classification of Institutions of Higher Education classifies the institution as Master’s College and Universities (medium programs). Further demographics of Poseidon College can be found in Appendix G. The ATP is a 70 credit hour post-baccalaureate entry-level master’s professional program. The program is designed for students with an earned bachelor’s degree who have met the additional pre-requisite requirements. Students at the institution do have the option to complete a 3+2 program, earning a bachelor’s of arts degree in Health Sciences; however, the majority of the students are post-baccalaureate students.

**Participants. Dr. Edward Simmons, PhD, ATR, ATC.** Dr. Simmons is the program director of the post-baccalaureate entry-level master’s program. He started at Poseidon College after the curriculum had been developed and the program had been proposed and approved at the institution.

**Dr. Charles Bend, EdD, MPH, OTR.** Dr. Bend is the Dean of the College of Health Sciences at Poseidon College.

**Athletic Training Program Development.** Undergraduate and graduate education. As stated previously, there are two tracks available at Poseidon College for individuals to earn their Masters of Science in Athletic Training degree. The first route is a 3+2 route, where students are able to apply for the master’s program during their junior year if all admission (Appendix H) and prerequisite requirements (Appendix I) have been met. These students obtain their bachelors of arts in health sciences following the
completion of their fourth year. During their fourth year, they are taking graduate level courses and acting as professional athletic training students. However, the majority of students in Poseidon College’s athletic training program have their baccalaureate degree from other institutions.

Dr. Simmons admitted that if he had to start the program over from scratch, he would consider only having the 3+2 model. He said “…then you can spread it out over three years. You can lighten up the course load the third year and have more credits both for the [research] project and for doing deeper clinical experience”. He believes that the structure of the competencies that the program needs to follow are written in a way that is “more in tune with a graduate model”.

**Timeline of program development.** Dr. Simmons was hired at Poseidon College after the program had already been approved and initial development was underway. According to both men, the decision for the institution to add the ELM program came from an enrollment management perspective, which Dr. Simmons believes is a trend for institutions of this size. According to Dr. Bend, admissions noticed that students were listing athletic training as a desired degree program which heightened interest for the development of the program. Simultaneously, the institution was adding a football program to the athletics department and the addition of this program was thought to be attractive to student-athletes. While Poseidon College does not have many students that complete the 3+2 model, Dr. Simmons noted that between 30-50% of the individuals in the program are former student-athletes.

Dr. Bend was instrumental in the development of the program. Initially, a prospectus was developed which went to the upper administration or the graduate council for review and approval. Once that was obtained, a full scale proposal was developed
which included detailed budget projections, market analysis, and necessary resources. The proposal was sent to the president’s staff and then went to the graduate curriculum committee to ensure that the curriculum met graduate standards. Finally, the program proposal reached the Board of Trustees who approved the program.

According to Dr. Bend, the marketing department was very valuable with the development of the proposal. The marketing department at Poseidon College contracts with market analysis firms that were able to examine the local and regional climate for athletic training programs. Additionally, Poseidon College hired an athletic trainer who was employed in an academic program outside of their state. This individual examined the landscape of the facilities, competition data and other factors to give a professional opinion on the viability of an ELM program at Poseidon College. A significant finding through the market research and from the consultant was that there was an abundance of baccalaureate athletic training programs and the model for the athletic training program could look similar to the other health professions on campus.

After the program received approval from the institution and the Board of Trustees, the program had to be approved by the external accrediting body. Due to the classification of the institution, Dr. Bend said that because of the high number of master’s degree programs and master’s degree programs for clinical doctorates, there was limited concern with institution accreditation. When Dr. Simmons was hired, he had a year without students admitted into the program which allowed him to focus on curriculum revisions and the CAATE accreditation process.

Initially, the curricular model that was developed for this program incorporated 58 credit hours. Once Dr. Simmons was hired and began examining the curriculum, he had the support to change the curriculum to support his vision of the program. He used the
support to create a 70 credit hour program which blended entry-level and advanced-level education to “create a unique program”. The development of the program continues to be supported as Dr. Bend noted, “in order to make them academically competitive, I’m really thrilled that the decision was made to go with the entry-level master’s degree”.

**Program location in the institution.** The Master of Science in Athletic Training professional program is housed in the College of Health Sciences at Poseidon College. In addition to athletic training, there are six other health care programs including the following: exercise physiology, health informatics and information management, occupational therapy, physical therapy. Currently, a physician assistant program and a social work program are in development. According to Dr. Bend, “we have a fairly rich healthcare foundation”. Because of the other healthcare programs on campus, Dr. Bend says they “strive towards interdisciplinary or disciplinary excellence”.

As stated previously, the program was developed at the same time the football program was being added at the institution. To support the implementation of both programs, an addition was attached to the recreation and wellness center. According to Dr. Simmons, they wanted to have an academic footprint in the building so they housed the athletic training program there as well as relocated the established exercise physiology program to the building. The new construction involved a large athletic training room which was supposed to be shared with the athletic training program. Dr. Simmons said this was a big challenge because there was no dedicated lab space or an initial equipment budget for the education program because it was assumed the education program and the clinical services could share space and resources.

**Financial implications of degree.** As stated previously, the addition of the athletic training program occurred with the implementation of a football program, in the
hopes of boosting enrollment and improving the institution’s finances. Dr. Simmons discussed that a program like this could lose money in the first year of the program. However, Dr. Bend said, “Financially, things remarkably have settled out pretty well in terms of who does what”. Compared to other allied health programs, the athletic training program is relatively small. Dr. Bend also said, “Athletic training certainly makes money. There’s no question about it. It’s a revenue positive thing. But because of its size, it doesn’t make millions of dollars”. Dr. Simmons estimates that the program brings about a half of a million dollars in revenue after expenses are removed. One of the financial benefits of this program’s size is that it does not require as many resources as other programs.

According to Dr. Simmons, Poseidon College is a high tuition dependent institution. He believes these graduate programs have “…become important economic vehicles because the traditional undergraduate is not”. Because the institution is so tuition dependent, there are no scholarships or institutional financial aid available for graduate students. Dr. Simmons discussed that the cost for the 2014-2015 school year was $710 per credit hour. For the 70 credit hour program at Poseidon College, it costs two-year post-baccalaureate students around $50,000 in tuition. This total does not account for fees, textbooks and living expenses.

Both men agree that the 3+2 program is a beneficial way for students to be able to receive their degree and decrease the financial load. For their fourth year, students are still classified as an undergraduate student and financial aid and institutional scholarships apply to the credit hour cost. Additionally, Dr. Bend said, “…with loans being what they are and whatnot, you can stay at an institution, keep that safe zone and that consistency
for an additional year and obtain your master’s”. Again, the majority of the students are post-baccalaureate students which has positive financial gains for the institution.

As discussed, the athletic training program is housed in the newly renovated recreation and wellness center with athletics and the exercise physiology academic program. The association with football, and athletics in general, has had both a positive and negative impact on the creation of this program. Dr. Bend believes that because of the small number of enrollments in the program, he’s unsure if the program would have had the space it does if it was not for the institution’s commitment to football and athletics. On the contrary, Dr. Simmons noted that there was no additional budget for the athletic training program as it was assumed resources would be shared with the clinical athletic trainers and the need for the football program.

**Faculty impact.** The previous text on the timeline of the program revealed that Dr. Simmons was hired after the original curriculum had been developed and the program had been institutionally approved. He then proposed a 70 credit hour program which ended up impacting the faculty. According to Dr. Simmons, the original discussion was that he would have 3 lines available and then the lines softened and only one additional person was hired. The lack of a third person created challenges for the two faculty members to be able to support the needs of the 70 credit hour program. Yet, according to Dr. Bend, adjunct faculty members were used to support the classes and “to develop community resources”. In January of 2014, an additional faculty member was hired to support the athletic training program.

Dr. Simmons is the only faculty member to have his terminal degree; however, the other two are pursing theirs currently. He says that there are other faculty members at the institution that have their master’s degree and are able to teach, it is an institutional
decision. It is common for individuals at Poseidon College to begin as instructors and move up from there. Additionally, Dr. Simmons notes that the institution has been moving away from tenure and promotion.

He believes there is a profession-wide concern in the lack of faculty members in athletic training programs that do not have their terminal degree. Yet, he also believes there is a challenge in our profession for individuals teaching AT courses with a lack of clinical experience: “A lot of the people that are coming from the biggest schools, the R1s, they are being trained as researchers. And there’s virtually nothing in there that’s getting them administratively trained for the program director positions”.

**Admissions processes.** It was very important to Dr. Simmons that the program be unique and to create a space for them in the market by combining entry-level and advanced education. According to Dr. Simmons, “…if we’re more expensive but just kind of cookie cutter, my thought was that we weren’t going to be well positioned in the market relative to the competition”. By establishing the two-year post-baccalaureate program as well as the 3+2 program, this program is able to attract different kinds of students. Both Dr. Simmons and Dr. Bend believe the 3+2 program is attractive for students and can be encouraging for students to attend Poseidon College because of the opportunity to obtain a master’s degree with just one additional year.

Students are able to participate in division III athletics until their senior year. Dr. Simmons believes that a unique benefit of also having the post-baccalaureate program is that “if you’re in your third year and you’re having a great experience and you don’t want a fourth one, well, you can do that and apply as a post-bac student”. This flexibility allows students to continue the option of athletic participation as well as participation in other events and activities on campus. The new building, tied to athletics, is a positive
admissions attraction for students. Additionally, Dr. Bend believes that the pre-requisite courses are great because of the interdisciplinary relationship with the other health professions through this quote:

One other kind of benefit for us is that we have students coming in as undergraduates, there really is a lot of similarity between health care programs and students don’t always know what they want when they first come on campus. Many of our programs like exercise physiology or athletic training or even physical therapy share many prerequisites. So, there is some option early on for students to change their mind as they look ahead at what these programs have to offer.

Additionally, for many students, the small class sizes are attractive and additionally, the 100% 3 year aggregate pass rate for the BOC exam (Appendix G) is attractive to students.

The addition of a thesis, discussed below, is a positive attribute to the athletic training program at Poseidon College. Dr. Simmons said,

…if you look at the athletic training piece of it, at the end of the day, we have the same knowledge skills and attributes as undergraduates. In our case, we’ve been purposeful about doing extra stuff. But then there’s things you do because it’s synonymous with graduate education. For instance, we have an actual thesis option which many of the entry-level programs do not.

The research efforts at Poseidon College will be discussed next.

**Research.** Students at Poseidon College have the option to complete either a thesis or a capstone project as it is believed that the research part is reflective of a graduate experience. According to Dr. Simmons, the majority of students come into the
institution with an idea if they want to complete one or the other. To support this push for academic research and projects, there is an established research progression built into the curriculum which covers evidence-based principles, methodology, article critiques, and proposal creation, among other topics. However, given the academic and clinical demands of this program, Dr. Simmons does note that there are many challenges for students to complete quality research projects. Yet, Dr. Bend said that faculty and students from other disciplines are impressed by the capstone projects that the students are able to complete.

**Clinical education.** The clinical experience at Poseidon College was not discussed in great length during the interviews. It was revealed that the institution collaborates with 24 preceptors.

**Redwood State University**

**Institution Demographics.** Redwood State University is a public institution with an enrollment of about 23,000 students. The institution is classified as Master’s College and Universities (medium programs) by the Carnegie Classification of Institutions of Higher Education. Additional demographics of Redwood State University can be found in Appendix G. The Master of Science in Athletic Training degree program originally received accreditation from the CAATE in 2010. In addition to the post-baccalaureate professional program, Redwood State University also has a CAATE accredited Bachelor of Science in Athletic Training degree as well as a Bachelor of Science in Athletic Therapy degree.

**Participants. Dr. Michelle Hampton, EdD, LAT, ATC.** Dr. Hampton is the current program director of the post-baccalaureate athletic training program. She was responsible for the development of the program.
Athletic Training Program Development. Undergraduate and graduate education. As previously stated, Redwood State University hosts a Bachelor of Science in Athletic Training degree program, a Bachelor of Science in Athletic Therapy degree program, and a Master of Science in Athletic Training (MSAT) degree program. The CAATE accredited bachelor’s athletic training program is geared towards educating baccalaureate entry-level athletic trainers to either enter the workforce or to continue to post-baccalaureate education. The courses for the baccalaureate athletic therapy program overlap some with the baccalaureate athletic training program, but is geared towards graduate school preparation for students interested in physical therapy, occupational therapy, or pre-med.

The thought at Redwood State University is that if a mandate is made that the educational requirements for athletic training will shift to the professional entry-level post-baccalaureate degree, the institution would be able to drop the accredited undergraduate program and rely on the bachelor’s in athletic therapy to provide the students the opportunity to still obtain their bachelor’s degree at Redwood State University in a 3+2 program and then obtain their MSAT. The faculty members have already tried to improve the athletic therapy program to be a better preparation for the MSAT program.

Dr. Hampton admitted that if she had to do this process again, she would have eliminated the undergraduate athletic training program and just transitioned to the MSAT. It is a challenge to manage all aspects of each of the three programs, which yields around 70 students. The MSAT program alone has 30 students for the 2014-2015 school year. Faculty members need to develop two separate accreditation documents and go through two separate accreditation site visits and also develop two end-of-year reports.
Additionally, she admits that it has been challenging to maintain a close relationship with the majority of the students and that she meets many of the undergraduate students as they are going through the graduation line. Dr. Hampton said, “And that’s hard, you know, it’s lost some of the small family feel that I really like…I still have it with our graduate students, I just lose it with the undergrads”.

**Timeline of program development.** The decision was made to create the MSAT program because an additional faculty member was needed in the department. When Dr. Hampton discussed the need for an additionally faculty member, the provost charged with her with starting a master’s program to receive approval for another faculty member. She did research and decided that the entry-level master’s program made the most sense:

- We kind of saw it coming down the pipes anyway and we wouldn’t necessarily have to come up with an entirely new curriculum. I mean, obviously, it’s stepped up, but it’s not a whole new set of courses and a whole new set of content.

She also said, “…now that we have been doing it, I am so glad that we did. I am really thrilled to kind of be ahead of the curve”.

Overall, the program development process took around nine months. Originally, the program was supposed to begin in the fall semester, but it had received approval in July and Dr. Hampton and her dean decided that it would be best to wait an additional year to make the program as successful as possible. In order to obtain institutional approval, Dr. Hampton admitted that she had some challenges at the institution. Although Redwood State University already had about seven master’s programs, many on the academic program committee did not understand the concept of an entry-level master’s program. According to Dr. Hampton, “there was definitely a feeling that maybe
it wasn’t a real master’s degree, it was just a repackaged undergraduate”. Because of this feeling, the faculty did significant evaluation of the curricula content.

Redwood State University is a public institution and therefore had to gain approval from the Board of Regents, which proved to be a challenging process. Other public institutions in the state were against Redwood State University adding additional graduate programs. Dr. Hampton said that she had to meet with some of the regents individually and give tours of the institution to show that the facilities were already established to support the program. Additionally, she said that when individuals learned this was a professional master’s degree program that would lead to a certification, they were more comfortable with the program. There are other allied health professions at Redwood State University such as nursing, respiratory therapy and medical laboratory sciences. But these programs lead to an associate’s degree and not a master’s.

**Program location in the institution.** The athletic training programs at Redwood State University are located in the College of Education and the in Department of Health Promotion and Human Performance. In addition to athletic training and athletic therapy, the department also houses nutrition, physical education, health promotion, performance management, and recreation. Dr. Hampton and I discussed the information in the White Paper (Richardson et al., 2013) and how it is believed to be best that athletic training programs are housed with other health professions at the institution. At Redwood State University, the College of Health Professions incorporates degree programs that are very different, mostly in that they are associate’s degree granting programs.

Additionally, she notes that the support from the College of Education has been incredibly valuable for the programs’ successes. The programs are housed in a new building and the college has a five million dollar endowment. Dr. Hampton said, “…it
would be moving from a big fish in a very rich pond to a small fish in a place where they are already strapped for resources”. The College of Health Professions is housed in a smaller building where they share offices and do not have as many financial resources.

**Financial implications of degree.** Since the inception of the MSAT program, there has been a great deal of support from the provost and the institution as a whole. According to Dr. Hampton, “…the provost really supported it. Because graduate programs are money makers… [They] are pretty much viewed as self-supporting so they weren’t as worried about it”. The program has continued to be self-sustaining which is beneficial for the viability at Redwood State University.

An additional financial benefit for students is that in-state tuition is offered for out-of-state residents. Dr. Hampton believes this makes the program really affordable and attractive for students. Additionally, there are graduate assistant positions offered on campus that students have taken advantage of. These graduate assistant positions are not traditional athletic training positions, but are with marketing, strength and conditioning and coaching for athletic teams. The positions are not endorsed or managed by Dr. Hampton, she just ensures the students understand it cannot interfere with their clinicals. She said that many of the students have outside jobs anyways, so being on campus is a benefit. When asked about the intent behind students taking graduate assistant positions, she said she believes it’s primarily for the financial benefit, not for the experience; which is different than the current graduate assistant model for athletic trainers.

**Faculty impact.** The program developed because of the increased need for faculty in the undergraduate athletic training program. Overtime, five full-time faculty lines have been established. This past year, the program has operated with four faculty members but are in the process of re-hiring a fifth. Operating the three programs is very
demanding on the faculty members. Three sections of each course are being taught and Dr. Hampton says that it is a lot of work managing the programs with clinical rotations, student management, accreditation visits and end of year reports.

Redwood State University has relied heavily on the use of adjunct faculty members to support the needs of all of the programs. When the MSAT program was developed, there was a hiring freeze on campus due to the economy which led to increase reliance of adjunct faculty. At one point, 70 percent of undergraduate courses were being taught by adjunct faculty members and the undergraduate students felt very slighted which caused tension between the undergraduate and graduate students. Dr. Hampton feels that there are not major differences between the undergraduate and graduate students upon graduation; however, she believes the graduate students are probably receiving a stronger education because of the consistent faculty teaching their courses.

Faculty members at Redwood State University are required to have a terminal degree. While it is the norm at her institution, Dr. Hampton believes that the issue of terminal degrees will be an issue of the entry-level master’s is mandated. However, Redwood State University is a 4/4 institution which is beneficial for the faculty members in the program. For every credit hour of student research, faculty members receive one fourth credit load which equates to the faculty members having about a three credit hour load for research and mentoring. According to Dr. Hampton, “…we are now producing research at a rate significantly exceeding most faculty members on campus, because we have graduate students doing the research and we essentially have the release time to do it”. The release time for research has been crucial for the MSAT program to incorporate quality research, but it has also allowed the faculty members to continue to improve their own scholarship.
Campus-wide, Dr. Hampton believes that the program now has the support from other faculty members. However, she does not think that everyone actually understands what a professional master’s program is. Additionally, some tension has been created because the program now has five full-time faculty lines and other programs are jealous. As she says, “…nothing gets handed to us on a silver platter. Every faculty line we got came with a 10 page proposal with data that we put together”.

**Admissions processes.** The admission requirements for Redwood State University are listed in Appendix H; however, there are some distinguishing characteristics that benefit admission to the institution. As an early adopter of the ATCAS system, all applicants must use ATCAS, or the Athletic Training Centralized Application System, to apply for the program. The pre-requisite courses for the MSAT program (Appendix I) are extensive; yet, the program is designed so that students can take up to four pre-requisites while enrolled. Dr. Hampton believes this is important because of the strength of the emergency response class and the neuromuscular conditioning class. The neuromuscular conditioning class is valuable for students because they are able to take the Certified Strength and Conditioning Specialist examination and be dual credentialed upon graduation.

As discussed previously, there are great financial benefits at Redwood State University. Out-of-state students are able to pay in-state tuition and graduate assistantships are available which decrease the financial load on the students. Additionally, the MSAT program does not require observation hours as part of the admissions process. Although it is strongly encouraged, Dr. Hampton said this has increased the number of international students in the program. Another benefit is that the
College of Education has a full time recruiter so that Dr. Hampton does not have to be so concerned about if and how to promote and maintain applications.

Dr. Hampton is also able to promote the fact that her students have 100% three-year aggregate pass rate on the BOC exam. Additionally, the retention rate in the program is between 95-98 percent and the graduates have a 93% placement rate. She would estimate that “…four times out of five, the master’s students will beat out undergraduates for the jobs”. She equates this to the hiring systems within many human resources and hospitals in that applicants are awarded more points for having a master’s degree. Additionally, for high schools, these post-baccalaureate master’s students are seen as older, more mature and the age separation can help with inappropriate relationships between young athletes and athletic trainers.

**Research.** When discussing the integration of research into the curriculum, Dr. Hampton said,

…there was definitely a feeling on campus I got early on in the process of ‘well, is this going to be a real master’s degree’? And what makes it a real master’s degree? And for me, it was, well, they do a full thesis.

She also said, “…that kind of legitimizes it as a graduate degree, not just for our university, but to the world”. She also admitted that it was easier to implement research into the curriculum because of the evidence-based practice standards and the research methods courses that were already in place.

Dr. Hampton says she is very clear with the incoming students that everyone will complete a thesis and it is not an option at Redwood State University. In addition to the information listed above, she stated this to legitimize the incorporation of the thesis:
Number one, you will be a better consumer of research because you will get it on a much deeper level than having somebody just explain it to you having gone through the process you will get what makes it a good study. And then number two, I think you know, I said I don’t care if you don’t want to get a PhD, if you understand research and you understand the process, you also get that the best research we could possibly be doing is done by clinicians, not faculty.

She believes that it is very important for students to understand the process of research because they should be able to incorporate it into their real-world clinical practice no matter what setting they are employed in.

**Clinical education.** Undergraduate and graduate students are completely separated in their classroom experiences, but there often is some overlap with their clinical education as they strive to obtain around 1000 hours of clinical experience. Since the graduate program was added, Dr. Hampton has had to add additional clinical sites and at this time there are around 40 sites and 50 preceptors that collaborate with the athletic training students at Redwood State University.

The addition of the graduate program has had both positive and negative effects on the preceptors and clinical sites. One benefit is that a partnership with the student health center has been created because the staff had a clearer understanding of athletic trainers and the need for a general medical rotation, after accepting graduate students. Since then, the student health center has agreed to have undergraduate students complete their clinical rotation there as well, despite previous beliefs about student privacy. However, at one of the clinical sites, the preceptor only possesses a bachelor’s degree. The degree differences has caused challenges with some of the master’s level students
and the preceptor has requested to no longer have master’s students and only wants to be a preceptor for bachelor’s level students.

The faculty are considering changing the timeline of the curriculum for the 2016 school year which will support a change in clinical rotations. Currently, the program starts in the summer and the following summer is left open of coursework so that students can obtain internships. However, students are having a challenging time finding internships and the availability of internships for uncertified students is decreasing. To change the curriculum structure, the program will begin in the fall and students will complete full rotations. This change will allow students to have five full semesters of clinical rotations but will also place more pressure on the faculty to find quality experiences for the summer-long rotation.

Rocky River University

Institution Demographics. Rocky River University is a private institution with around 16,000 enrolled students. According to the Carnegie Classification of Institutions of Higher Education, it is classified as a Research University (very high research activity). Additional demographics of Rocky River University can be found in Appendix G. Graduation from the athletic training program yields a Master of Science in Athletic Training (MSAT) degree. The majority of students in this program are 3+2 students and about a fifth of each cohort are post-baccalaureate students. The program requires the completion of 70 credit hours of education and received initial CAATE accreditation in 2010.

Participants. Dr. Andrew Balaban, PhD, ATC. Dr. Balaban is the program director of the athletic training program at Rocky River University. He has been at the institution since 2000 and was previously the head athletic trainer for seven years.
Concurrently, he was completing his doctoral work and he entered as the program director in 2007.

**Dr. Michael Richards, PT, PhD, SCS, ATC.** Dr. Richards is the department chair of the department of physical therapy and athletic training and he began working at the institution in 1999. As a dual physical therapist and athletic trainer, he worked with the clinical athletic trainers and assisted with athlete rehabilitations. Additionally, he was completing his doctoral work and was integral with the development and implementation of the MSAT program.

**Athletic Training Program Development.** Undergraduate and graduate education. As previously stated, the majority of the students at Rocky River University participate in the 3+2 program. At the end of their third year, students are able to be involved with the professional phase of the program and after their fourth year, students earn their Bachelor of Science in Exercise Science degree. Additionally, post-baccalaureate students are able to enter the degree program if there is space available. Dr. Balaban believes that the post-baccalaureate students help to invigorate the class of students that are established students at Rocky River University.

The pre-professional phase of the program is similar to that of other health professions at the institution such as occupational therapy and physical therapy. Due to the interprofessional collaboration and extension into professional programs, Dr. Balaban believes “…students really look at athletic training as a destination and not as a stepping stone to something better”. Additionally, Dr. Balaban believes that the 3+2 program is unique at an institution like Rocky River University because it keeps the census high for the undergraduate program. Additionally, students often self-select out of the athletic training path and most stay within the university and find a new major.
According to Dr. Richards, the master’s level education that has been implemented has really worked well. He also said,

…we are also staying true to educating people in a liberal arts education. We are not a trade school. You know, we are not bringing them in as freshman and training them as an athletic trainer or a physician assistant as a freshman. They are getting a good liberal arts education. We are compacting that into three years rather than four, but that works highly successfully. And I have no regrets about the design…If athletic training wants to be recognized as a health professions education program by all of the folks involved, including consumers, it makes a world of sense to go to the master’s and to say we are liberally arts educated people who had an additional health professions education at the master’s level.

Because Rocky River University is a private institution, they have the obligation to have students complete liberal arts requirements. In fact, Dr. Richards said that in fall of 2014, several AT students were able to study abroad because the curriculum is opened up. It is valuable that both Dr. Balaban and Dr. Richards believe that need is being met with the implementation of the 3+2 program and the post-baccalaureate option.

**Timeline of program development.** The idea of the program began in 1999 when Dr. Richards visited the campus for a tour and realized there was no athletic training program at the institution. As a member of the physical therapy faculty, he began working on his doctoral work and needed to complete a residency project as part of his program. For his project, he opted to complete a feasibility study and developed the documents for an athletic training program. The program was originally intended to be a baccalaureate program, but Dr. Richards examined the other programs at the institution and he “didn’t want athletic training to be a feeder program for physical therapy…We
want the program to provide athletic training professionals who will work in athletic training”. At that time, Dr. Richards decided to propose the program as an entry-level master’s degree and the 3+2 program fit well with his knowledge of physical therapy programs.

To start the process of his residency project, Dr. Richards spoke with physical therapists, athletic trainers, and administrators of local physical therapy clinics to understand if individuals felt that there was a need for this type of program. It was discovered that there was an additional athletic training program in their town, but it was not in the same county and that there really was a “…need and a feasibility of an athletic training program”.

Dr. Richards formed an advisory board of around 10-12 people that were physicians, athletic trainers and clinical administrators in the area. Everyone collaborated together to help form the curriculum that was eventually proposed to the chair of the department. After a few revisions, the proposal was approved by the dean and the provost. After approval from the provost, the board of trustees approved the new degree program in December of 2006. Dr. Richards said that as they are a private institution, they do not require state approval for a new degree program, although, they did notify the state of starting the program.

The program director, Dr. Balaban, was hired in the summer of 2007 and then had a full year before the first group of students were admitted in the fall of 2008. According to Dr. Richards, the four students that were admitted into the first class were only post-baccalaureate students. The CAATE accreditation process began during that time and the first class graduated in 2010. Also in 2008, the first class was admitted into the freshman cohort and that group graduated in May of 2013. The addition of faculty followed the
development of the program; a clinical coordinator was hired in 2008, an additional tenure-track faculty member in 2009, and a dual PT/ATC in 2010.

The pre-professional and professional phases of the program are quite separated. When students are in the pre-professional phase, Dr. Balaban says their cohort does not get very close because everyone has individual interests. However, the summer after their junior year, they begin athletic training focused courses and they really get to know each other. At this time, they are meshed with the post-baccalaureate students through combined course work and an orientation event designed to kick off the professional phase. According to Dr. Balaban, “…by the end of the summer, you really can’t even tell the post-baccalaureates from the undergraduates”.

Program location in the institution. The MSAT program is located in the College of Health Sciences and in the Department of Physical Therapy and Athletic Training. Dr. Balaban expressed how grateful he is to the physical therapy faculty members for embracing the addition of athletic training and also allowing for the department name to be changed from the Department of Physical Therapy to the Department of Physical Therapy and Athletic Training.

During the development of the program, the school of allied health merged with the school of nursing to form the college of health sciences and an interprofessional education program was developed. Given the changes that were occurring, Dr. Richards felt strongly that the MSAT program should remain with other health professions and not in a school or college of education. The other health professions on Rocky River University’s campus are physical therapy, physician assistant, occupational therapy, clinical lab science, and health information management and radiation therapy. Additionally, there is a medical school and a nursing school. According to Dr. Richards,
the major advantage to having all of these health professions was that the foundational classes necessary for the MSAT program were already being hosted.

**Financial implications of degree.** According to Dr. Richards, the development of the program did not require much capital outlay for the Rocky River University. The established health programs, specifically physical therapy, had the majority of the equipment needed. As Dr. Richards said, “we had to get a few helmets and shoulder pads and spine boards. There was not much of a capital outlay for athletic training, other than the cost of faculty”.

Dr. Balaban revealed that there is no institutional aid available for graduate students. Many undergraduate students receive fellowships and merit-based aid, but that is good through their four years at the institution. Finally, it is better for the students to do the 3+2 program and to have one year to pay for versus two. However, as Dr. Richards said, “there is some sacrifice personally to do this kind of program”.

**Faculty impact.** As stated previously, the MSAT program has four faculty members; a program director, a clinical coordinator, a tenure-track faculty, and a PT/ATC that teaches in athletic training and physical therapy. Additionally, the program uses adjunct faculty. Dr. Balaban has been intentional about the use of adjuncts. He does not use adjuncts to fill gaps the faculty cannot fill; he uses adjuncts based off of their strengths and specialties. For example, a registered dietician with a PES teaches the nutrition class.

Dr. Richards and I discussed how there was some initial push back from the physical therapy faculty about the implementation of an athletic training program. As he stated, athletic trainers and physical therapists are known to have a strained relationship, so as a dual-credentialed faculty member, he worked diligently to help the physical
therapy faculty understand the idea that the athletic trainers were not being trained to replace physical therapists. He said, “…I wouldn’t want an entry-level PT rushing out on the field to manage my son or daughter’s cervical spine injury. Just like I wouldn’t want an athletic trainer managing my grandmother’s stroke”.

There still is some push back from some faculty members and some community members, but it has improved. Rocky River University has a strong push for interdisciplinary care education which has helped. He believes, “…it is unfortunate that there are institutions where physical therapy and athletic training in the same institution but they are not connected”. At Rocky River University, these departments have combined meetings, share space and equipment and also combined committees.

**Admissions processes.** The profession of athletic training lines up with the institution’s religious mission of being service oriented, according to Dr. Balaban. Additionally, the initiative for interdisciplinary education is really beneficial for students because the rigor of the programs are similar across health professions and they also have the opportunity to learn from different health care professionals. Both men believe in the value of interdisciplinary education as a way to ensure that athletic training is not viewed as a stepping stone degree.

For students, the option for a 3+2 program is very beneficial financially and helps attract many students to the MSAT program. Additionally, it is designed to be a cohort program, even with the addition of post-baccalaureate students. Dr. Balaban believes that post-baccalaureate students provide the Rocky River University students an opportunity to interact with others outside their school and that it is beneficial. Additionally, the program is designed to allow students to participate in Division I athletics. He says, “These kids are division one athletes and they are able to participate and I think having
athletes in our profession, people that competed at the collegiate level, I think enriches our profession”.

As discussed previously, the dedication to liberal arts education could be very attractive to potential students. Students are able to study abroad and participate in other on-campus activities before entering the professional stage of their program. As Dr. Balaban said, “…we create a value added experience for our students”. More information on the admission requirements for Rocky River University can be found in Appendix H.

**Research.** There is a research requirement in the MSAT program at Rocky River University. The research component is woven into the coursework and continues to build each semester. Students complete the research requirement with a capstone project and a public presentation of their project. Dr. Balaban pushes that students should submit their work for the NATA free communications call for abstracts and be able to present at the national level. However, he also says “…we define scholarship to be pretty, pretty wide”. Additional projects that students have completed include the creation of a children’s book and creation of videos to help with preceptor education. He does say, “But the one thing we do ask, since everyone writes a paper, is to really create a scholarly feel for all those types of things. That’s really important”.

**Clinical education.** Rocky River University is located in a large, metropolitan area and they are able to have access to many clinical sites. When Dr. Balaban came on as the program director, he worked to establish multiple clinical sites including professional teams and local colleges. Given the vastness of the clinical experiences, the MSAT program is able to disconnect themselves from Rocky River’s athletic programs.

When asked about the clinical education component, Dr. Balaban said,
...what we’re doing more of is we’re increasing the rigor and the quality and the autonomy of the students from these experiences. I think hours aren’t as big of a concern but more the quality of the experience is our concern.

In order to improve the quality of the education, time in the classroom has been modified. Class day and time was originally modified to fit the needs of the local professional sports team but it has ended up being beneficial for individuals at other sites because they are able to experience unique situations during the day that they would not have experienced if traditional classroom hours were kept.

**St. Stella University**

**Institution Demographics.** St. Stella University is a large public institution with an enrollment of just under 50,000 students. According to the Carnegie Classification of Institutions of Higher Education, it is classified as a Research University (very high research activity). The program at this institution yields a Master’s of Science in Athletic Training degree upon completion of the two-year entry-level master’s program and received CAATE accreditation in 2013. There is no 3+2 program at this institution; however, the state licensing board allows for an available internship route. It is a full-time, 60 credit hour program.

**Participants. Dr. Carol Hindwich, PhD, ATC, LAT.** Dr. Hindwich began consultation work with St. Stella University with permission from the institution where she was employed. During her time as a consultant, she worked to develop the curriculum and was hired full-time in May of 2011. She is the current program director for the Master of Science in Athletic Training professional program.

**Athletic Training Program Development. Undergraduate and graduate education.** St. Stella University does not have, nor ever had an accredited undergraduate
athletic training program. There was a previous internship route requiring 1800 clinical hours over five semesters or three years.

**Timeline of program development.** Through the conversation with Dr. Hindwich, we discussed how the clinical athletic training department wanted to start an athletic training program for many years, but it was not supported by administration. Prior to Dr. Hindwich working for St. Stella University, a new chair of the Department of Health and Kinesiology came in and developed the program. As she said, “so, it was really him understanding it, having a vision for it, wanting to support it, and really supporting it all the way up the chain. Also, the athletics director had a vision for this as well”.

In order to get the program approved, individuals at the institution created curriculum flowcharts that went to the state level. The proposal included a statewide and nationwide needs assessment. Due to St. Stella University being a state institution, it was important to examine if there was competition from another in-state school. Dr. Hindwich stressed the value of knowing the individual institution and understanding the requirements for a new degree. As she said, “it’s absolutely critical that you learn the process at the institution because they’re all going to be different from public versus private and also just institution to institution”. Once the program was approved by the institution, Dr. Hindwich began her consulting work for the institution and was hired in May of 2011. Soon after, in July of 2011, the first class of students was admitted.

**Program location in the institution.** The MSAT program is located within the College of Education and Human Development and specifically in the Department of Health and Kinesiology. There are no other health professions within the college or
department which makes athletic training different from the other programs. According to Dr. Hindwich,

That’s created a little bit more labor and creativity on my part as well as support personnel because our curriculum is different, and we schedule our courses different, and the way we enter our students into our program is different. For the most part, all of our processes are different.

There is an additional medical school and nursing program but they are separated from the MSAT program and location. This year, the programs have started to overlap with the use of some of the space with the medical school, including the simulations lab and cadaver lab.

**Financial implications of degree.** The initial start-up costs for the program were covered by academics. Examples of these costs include facilities, equipment, supplies, personnel, and operating budget. However, because the athletic department had a strong role in the addition and development of the MSAT program, part of Dr. Hindwich’s salary was supported by athletics. She said,

So my position was ceded initially by the athletics department and then it was taken over full-time by the academics. Because athletics saw this as being something that would be very helpful to them, they realized that students from the accredited program received credit hours for their clinical experiences. Whereas internship students are being paid as workers.

Eventually, her salary was covered fully by academics, but the startup funding from athletics was valuable in being able to establish the program.

For students, the majority are paying out-of-pocket for the 60 credit hour program. There are limited scholarships available and no opportunities for tuition
remission or graduate assistantships. Dr. Hindwich says that given the academic demands, there is limited time for students to work outside the program. For students that have their state licensure, they are allowed to do contract work on the weekends and only with sites that are not affiliated clinically with St. Stella University.

**Faculty impact.** In addition to Dr. Hindwich, there is one other full-time faculty member with the athletic training program. Both individuals possess a doctoral degree and are considered clinical professors at the institution. Because St. Stella University is classified as a Research University (very high research activity) by the Carnegie Classification of Institutions of Higher Education, the faculty members are expected to continue their scholarly work. Additionally, they both came from tenured track programs and had a scholarly line, so they are expected to continue that. However, given the demands of the research on the faculty members, Dr. Hindwich would like to see the addition of a third full-time faculty member soon.

In addition to the two full-time faculty members, several adjuncts are used to teach the courses. According to Dr. Hindwich, “our adjuncts are strategically placed. We don’t need adjuncts because we can’t cover them with full-time faculty. We use adjuncts because we feel they’re the best people to teach specific coursework”. They use staff athletic trainers and team physicians to cover courses that best fit their content knowledge.

**Admissions processes.** Dr. Hindwich believes there are many attractive qualities of St. Stella University’s MSAT program. First of all, the program has great support from the administration and the clinical athletic trainers. Students are able to experience clinical rotations in a division I athletic setting and have positive mentors in their preceptors, who also teach in the classroom. Additionally, some of the pre-requisite
courses allow for students to gain advanced credentials, such as a CSCS certification. Dr. Hindwich and I discussed that the faculty members are very dedicated to working with students to meet their clinical and research goals and will adapt their experiences to provide the best opportunity for growth.

Classroom education, clinical experience, advanced credentials, and the research requirements of the program have combined together to support the 100% pass rate over three years for the BOC exam. Additionally, Dr. Hindwich reports that the majority of students receive jobs after graduation. Their biggest employer are high schools which provide a great salary, great facilities, and positive working environments. Additionally, the institution has a very strong alumni network which has proven to be a great way for students to find out about job opportunities. More information on the admission criteria for St. Stella University can be found in Appendix H.

**Research.** Given the classification of the institution, Dr. Hindwich felt that it was very important to incorporate research into the curriculum, therefore it is a requirement for the program. She feels that research is a great place for the students to gain autonomy because they do not always get autonomy with their clinical rotations. She said, “…they enjoy it because they really don’t get that level of autonomy in their clinical rotations, even if they build on their level of autonomy and still somebody kind of right there calling the shots”. Students take research design courses during the curriculum which helps prepare them for the development of the research.

The thesis document that is developed is considered a non-thesis because it stays within the department and does not advance to the graduate college. To conduct the research, the students are paired up with each other and develop a manuscript style research project. The final examination for the program is an open presentation in a
graduate research colloquium. Dr. Hindwich makes it clear with the students that she does not expect them to have to present or publish outside of their academic community; however, the faculty will work with students that desire to meet those goals.

According to Dr. Hindwich, “it’s [research] a hard thing to include; it’s a hard thing to hold on to because it’s not a popular thing and it’s something that really does require a lot of work and effort outside of what is your workload”. It is a strain on two faculty members, but she expressed how important it is for faculty members to have to buy in to the importance of it, or the research will not be successful and beneficial for the students. The production of these research projects benefits the faculty members with their own research agendas and help to legitimize their work as clinical faculty members.

**Clinical education.** The clinical rotations at St. Stella are set up as semester-long rotations, season-long rotations or mini-rotations/observations. Students are assigned a preceptor a season or a semester and remain with them through the duration of the sport. Students are given the opportunity to express three rotations they desire and the staff works to accommodate the desires while also working to provide a well-rounded experience. Additionally, mini-rotations or observations, are completed for their general medical requirements as well as in the emergency room, and for surgical observations.

Students are able to complete internships and clinical opportunities when they are home for the first summer session which helps provide additional opportunities. In feedback surveys, students have expressed interest in having distance courses for the second summer session in order to be able to complete summer-long internships. Dr. Hindwich said this has made them reconsider their course structure but has also had them asking what the summer experiences are providing for students that the institution is not able to provide.
West Grand University

Institution Demographics. West Grand University is a private institution with an enrollment of under 2,000 students. According to the Carnegie Classification of Institutions of Higher Education, it is classified as Baccalaureate Colleges – Diverse Fields. Additional demographics of West Grand University can be found in Appendix G. The institution hosts a Master of Science in Athletic Training (MSAT) degree through a 3+2 program and also a two-year post-baccalaureate degree. To adopt the entry-level master’s program, West Grand University transitioned their undergraduate athletic training program and no longer has an accredited baccalaureate athletic training program.

Participants. Dr. Thomas Footlight, EdD, ATC. Dr. Footlight is the program director for athletic training and also the chair of the School of Health, Exercise, and Sports Science. He started at West Grand University in 1995 and served as the head athletic trainer until 2011.

Athletic Training Program Development. Undergraduate and graduate education. As previously stated, West Grand University had a CAATE accredited undergraduate athletic training program. Dr. Footlight said that they looked at the number of undergraduate programs in the state and realized there was a large number of undergraduate ATPs. They felt that the qualified students were being diluted to different schools and that West Grand University had a large number of students interested in the beginning but then graduating numbers were decreasing. Additionally, the institution had a lot of athletes that were interested in participating the ATP, but were not able to fit in the demands of the program; therefore, the entry-level master’s program would give them that opportunity. Dr. Footlight said that the question that was asked was …”how can we put ourselves in a different market and a different niche so we can attract quality students
at a higher number?” Concurrently, the institution was changing from a college to a university so there was a push for graduate programs and an entry-level master’s professional program fit the need.

Currently, the graduate level program is comprised mostly of post-baccalaureate students who are part of the two-year program. Dr. Footlight said there are a few interested 3+2 students but that it is unknown if they will continue to stick with the path. He expressed that one of the challenges with maintaining students in the 3+2 program is that the undergraduate students complete observation hours in the athletic training room in which they are not able to have any patient interaction. The students trickle out because they do not want to wait until their senior year to be able to begin competencies to treat the patients.

**Timeline of program development.** As stated, Dr. Footlight and others at the institution did a needs assessment of their state and institution and realized that West Grand University would be able to support the entry-level master’s professional program. To continue the process, Dr. Footlight proposed the degree change to the rest of the department in 2008. Although, because he is the chair of the department, it was easy to get the proposal approved and he said “we have a very collegiate College of Health Science”. The next step was to obtain approval from the dean. As West Grand University is a private institution, the proposal needed to obtain approval from the graduate studies council, academic program committee, full faculty assembly, and the board of trustees.

In order to fully support the transition process, West Grand University graduated the last class of undergraduate students in 2009 and then brought in the first class of three graduate students that following summer. According to Dr. Footlight,
So we closed one program, developed a new one and then went to the full initial accreditation process because that first group could not graduate from our institution prior to getting the decision about the accreditation, they knew upfront they were going to stay an extra semester and take like a…basically a residency-type fellowship class. Our administration worked with us and said since they were having to do that, they took a three hour experience fellow. I think we called it the fellowship experience and were not charged tuition. That was our gift to them for taking a chance on us.

The program did not accept additional students until the first cohort was finished with their first two years to ensure the program gained CAATE accreditation. Dr. Footlight made mention several times to how valuable it was to have the support of the administration in order to make this change. Overall, the transition process took about three years.

**Program location in the institution.** The MSAT program is located in the College of Health Sciences and in the department of Health, Exercise, and Sport Science. There are other health professions at the institution including occupational therapy, nursing, public health, counseling and exercise science. All of these professions are housed in the same building in addition to the athletic training room, locker rooms, weight room, faculty offices, and labs. There is an increasing focus on interprofessional education within the department through a collaborative research presentation.

**Financial implications of degree.** West Grand University is a private institution with a high sticker price; although, Dr. Footlight said that while that sticker price is around $40,000, most students pay around $13-14,000 for an undergraduate year. The
3+2 program is a financial benefit for students as they are able to get a year of their graduate work funded at the undergraduate price.

There are some financial opportunities for the graduate students. On campus graduate assistantships exist and some students have taken advantage of these. These positions are typically non-athletic; for example, one student held a position as a resident director to get tuition remission for six credit hours a semester. Additionally, there is a small endowed scholarship for a second year student.

In regards to resources for the program, there have been no changes to the faculty structure, requiring additional funds. Additionally, the institution had the established CAATE accredited program, which meant that the resources necessary for maintaining the accreditation demands were already available.

**Faculty impact.** Originally, there were three faculty members in place in the athletic training program. One faculty member left and Dr. Footlight has not been able to replace that person due to other needs on campus. They are operating the program with two faculty and have hired a part-time clinical faculty member this year. Additionally, both of the faculty members have clinical responsibilities, so neither are considered full time equivalent. Additionally, Dr. Footlight is the dedicated clinical coordinator for the athletic training program. He admits that, “…the problem is that I can’t convince myself that not being involved clinically is the good idea. And unfortunately, I think that’s going to happen eventually but it’s hard to juggle sometimes”. Both faculty members do have their doctorate, which is a requirement at the institution and with the external institutional accrediting body. Faculty members either need to possess a terminal degree or be ABD.
Due to their clinical responsibilities and their academic work-load, Dr. Footlight discussed that they are not able to make the three years a student spends in the pre-professional program more interactive and productive. Additionally, the faculty members are not able to dedicate more of their time to thesis or in-depth research projects for the students. Research at West Grand University will be further discussed below.

**Admissions processes.** When the program was first developed, Dr. Footlight asked, “How can we put ourselves in a different market and in a different niche so we can attract quality students at a higher number?” This is very valuable for recruitment purposes as the program has already been forward thinking in trying to attract the best students. Additionally, the collegial nature of the institution and the College of Health Sciences is incredibly valuable, especially with interprofessional education being incorporated into the curriculum.

The 3+2 program offering is attractive and beneficial to students, especially from a financial perspective. However, many students are not choosing that route at West Grand University, but Dr. Footlight is aware of the reasons why. To expand the reach of the athletic training program, there is a proposal to have first-year students stay close to the institution but allow second-year students to expand to an online/distant learning component in order to increase the potential for students and offer varying learning experiences.

Additionally, Dr. Footlight has noticed a significant decrease in the number of students using athletic training as a stepping stone and that the majority of his students are staying within the field of athletic training. The MSAT program has a 94% 3-year aggregate pass rate for the BOC exam; whereas it was between 80-85% when the program was baccalaureate only. He attributes this to the difference in confidence levels
and that this program has opened the door for unique students. More information on the admission criteria for West Grand University can be found in Appendix H.

**Research.** To support research in this graduate level program, the cohorts enroll in a full research class and also complete several evidence based practice projects. This year, Dr. Footlight has implemented a journal club, in which the students have to present articles to their preceptors. According to Dr. Footlight, the original thought was to do a full thesis “because that’s the traditional graduate way but in a lot of cases that wasn’t feasible at an institution of our size for the research they wanted to do”. He is satisfied with the structure of the research implementation at this point as he said, “it involves critical thinking. It involves them using the literature as a practitioner rather than as a research. I think that’s one way that we’re trying to infuse rigor with the research without it being a full-blown thesis”.

**Clinical education.** To support the graduate education, Dr. Footlight added additional high schools for students to use for their clinical experience. While most students gain around 1200 hours or more of clinical experience, there is a progression for the two-year program. First year students typically maintain 20 hours a week of clinical work and second years are engaged in around 30-35 hours of clinical work each week. He said that most students are gaining around 1200 or more hours of clinical experience. According to Dr. Footlight, “it is in a more compressed time, but they have more skills when they start so they’re able to do more from the get go”. As the program progresses and the distance learning option is solidified, students will have more of an opportunity to gain additional clinical experiences.
Emergent Themes and Subthemes

The interviews at all six institutions provided unique information on how each program was developed; no two programs had the same path for program development. Yet, their insights have helped support the development of three major themes that are discussed below.

Theme One: Knowing the Institution

As I was reading through the manuscripts and reflecting on each of the conversations I had, my reoccurring thought was that it is so valuable for individuals to truly know and understand the institution, especially when proposing or changing an existing degree program. As discussed previously, each institution faced their own intricacies on the journey to the creation of an MSAT program. According to Dr. Hindwich at St. Stella University,

It’s one thing what you want your curriculum to look like, but you have to look at the uniqueness of the institution, the needs of the institution. Every place is different and then that gets reflected on your curriculum plan… Programs shouldn’t be cookie cutter of other programs. They reflect the institution, the personnel. They reflect the differences in missions and visions.

Program directors needed to understand the levels of support available, the financial ability and sustainability opportunities from the institution, timeline of program development, faculty needs, the relationship with athletics, and the institution’s stance on interprofessional education. These respective subthemes are discussed below.

Levels of Support. Many individuals discussed how positive institutional support is valuable when developing an entry-level master’s program. Administration was discussed frequently; however, so was support from the faculty. At Redwood State
University, one of the conversations was “is this a real master’s or just a repackaged undergraduate degree”. This institution was not alone in facing this question; however, it supports that it is essential to have support from the institution.

From an administrative viewpoint, Light College, Redwood State University, St. Stella University, and West Grand University all discussed the value of having support from the administration. Dr. Hindwich at St. Stella University and Dr. Hampton at Redwood State University both discussed how their administration support the development of the program because it would benefit the institution financially. Dr. Hindwich said, “And you know graduate degrees and graduate programs are money makers for the most part for the institution”. Additionally, Dr. Hampton said, “…the provost really supported it because graduate programs are money makers… [They] are pretty much viewed as self-supporting so they weren’t as worried about it”. Financial ability of the institution will be discussed more below, but it is important to understand that the value of graduate programs is that they do tend to make money for institutions.

As Dr. Freemont, president of Light College said, “It’s fantastic, it’s funneling money”.

The interviews with Light College were unique because I had the opportunity to talk with individuals in four different positions at the institution; the program director, the president, the head athletic trainer, and the assistant athletic trainer. Additionally, I had the opportunity to speak with other private liberal arts institutions, but Light College was the only one that did not have any other master’s programs. According to President Freemont, the administration supported the development of master’s programs at the institution as he said:

I question whether kids are going to continue to select those schools even if they want to choose them because they’re so expensive. And I thought ‘well, we need
to find additional revenue centers’. We need to find ways to bring in money beyond just through tuition or board fees to undergraduates and so I asked the faculty to submit proposals across the entire campus.

The MSAT program was the first master’s program on campus, but additional graduate programs have been added since its inception. Due to the private liberal arts classification of the institution, the original bylaws of the institution had to be examined and considered, but both Dr. Waters and President Freemont said there was minimal concern. Dr. Waters said, “I appreciate how nimble the school is and the opportunities we have for sure”.

Some of the institutions noted some challenges with getting the board of trustees to understand and accept the development of the program. At Light College, Dr. Waters originally proposed a post-baccalaureate traditional master’s degree, but the board of trustees was not comfortable with the necessary resources for the program and denied the proposal. On the contrary, they supported the development of the professional program because it involved the resources that were already in place for the undergraduate program. Redwood State University, a public institution, had some challenges with the board of regents accepting the development of the program. Dr. Hampton said that in order to combat the unease, she invited members of the board of regents to the institution to see that the facilities and resources were already in place for the ongoing accredited undergraduate program. Additionally, she said that the individuals were more comfortable with the degree when they discovered it was a professional program leading to a certification. It seems that many do not understand the details of a professional degree program.
Several of the interviews revealed an initial lack of support from faculty members at the institution. As Dr. Hampton at Redwood State University said, “and I think we do have respect on campus, you know, does everybody still get it? I doubt it”. This was a reoccurring theme, especially with institutions with an established physical therapy program. Dr. Richards said that the physical therapy faculty were initially resistant to the development of the program because the feeling was that athletic trainers would be trained to replace physical therapists. As a dual ATC/PT, Dr. Richards said that he had to reiterate that each profession has their own skills and abilities. Additionally, Rocky River University has a continued push for interprofessional care and establishing that connection reassured the faculty members. At Poseidon College, one of the faculty members in the physical therapy department also holds her ATC credential and she was a true advocate for the addition of the degree program to her peers.

At Light College, faculty are more involved with program development because the faculty “…own the curriculum…” according to Dr. Waters. Light College was in financial trouble prior to President Freemont’s tenure and the Dr. Water’s believes that the addition of graduate level work to a traditional liberal arts institution created fear in some of the faculty members. She said,

I think a lot of that just comes from fear. That if you’re adding graduate programs in professional fields, like teacher ed and athletic training and business, that liberal arts will sort of just natural be absorbed. And these folks won’t have the same job, or least have the same respect that they’d had in the past.

The MSAT program was approved by the faculty committee, which made Dr. Waters think that there was not as much controversy over the program as it had seemed.
Dr. Hindwich at St. Stella University had a positive conversation about how valuable it is to look at the longevity of the positions that influence the support for athletic training programs. She said,

It’s also critical to look at the longevity of these positions, let’s say, because the chair changes, your dean changes, your athletic director or your associate AD for athletic training services changes. All those key positions, if they change and they don’t share your vision for your program, then your program goes from fully supported to not supported, or may not be a program any longer.

The program at St. Stella University was funded completely by academics; however, Dr. Hindwich position was partially funded by athletics for the first few years of the program. It is important to understand what levels of support exist beyond the individuals that have an immediate impact on the program.

Financial Ability and Sustainability. Three of the institutions (Light College, Redwood State University, and West Grand University) already had an accredited undergraduate athletic training program in place; therefore, the discussion on financial ability and sustainability is much different than the other institutions. The resources were already in place to host the undergraduate program so the financial output from the institution was much less. Additionally, Dr. Richards at Rocky River University stated that there was not much of a capital outlay for the program development because of the established physical therapy program. He said that there is not much that is needed for athletic training that is not already available for physical therapy education. He did say that the department did need to purchase football helmets, shoulder pads, and spine boards in order to teach emergency medicine.
Dr. Bend from Poseidon College says that “athletic training certainly makes money. There’s no question about it. It’s a revenue positive thing. But because of its size, it doesn’t make millions of dollars”. He additionally said, “The bad news is that it doesn’t generate as much revenue. The good news is that it doesn’t take as many resources”. Because class sizes are typically smaller with athletic training programs, the necessary resources are less than other programs. But, other individuals, such as Dr. Richards at Rocky River University, believe that if an institution does not have the funds to fully support athletic training as a graduate program, it should not be developed, despite the smaller necessary resources.

While institutions need to consider the financial input and output of a new program, Light College and Poseidon College admit that the program was started as a business decision and to help increase enrollment, respectively. Dr. Waters at Light College said, “There were a lot of misnomers about the expense” but that the facilities and equipment was in place and the institution did not need to hire any more faculty to support the change in structure. According to President Freemont, “because if you’re looking to cut corners, especially at schools like Light where you’re kind of always looking to save a little bit of money, you’re going to screw it up from there”. The development of the MSAT program was based on a financial/business to decision to set Light College apart from like institutions and provide a unique experience for students; yet, it was valuable to the institution to commit to doing it properly.

At Poseidon College, the MSAT program was started from an enrollment management perspective, to meet the needs of incoming students that were expressing interest in athletic training. The addition of the graduate program was a benefit to the institution, but there was a challenge with the financial resources provided. As stated
previously, the program was developed at the same time the football program was started and a new athletic training room was constructed. The administration did not plan for a resource budget for the education program, as it was thought that clinical and academic sides could share space, especially with lower enrollment numbers. Dr. Simmons’s thought was that “…so you’re going to have a nursing program and the student health center share a space?” Additionally, the education program started with a zero dollar budget from the vice president and his originally budget was around $150,000. Given the support he had from the vice president, she was able to find financial resources, but not near the amount he had anticipated.

The development of the MSAT program at St. Stella University was unique from the other institutions. The clinical athletic trainers had wanted the program for a long time but did not have the support of the administration. With the addition of a new dean, there was a push to start the development of the program. The academic structure supported the capital outlay of the program, but due to the buy-in and support from athletics, a portion of Dr. Hindwich’s salary was funded by the athletic department in order to support the financial demand. The position is now fully funded by academics, but the financial support from athletics was beneficial in the development of the graduate program.

**Program Development.** Each institution has a unique story of the journey of the development of the MSAT program. Three institutions (Poseidon College, Rocky River University, and St. Stella University) did not have a previous undergraduate athletic training program and the MSAT program was developed due to need and demand. The other three institutions had an accredited undergraduate athletic training program and Redwood State University’s is still active. Many program directors had a year of
employment with no students so they were able to focus on developing the curricula, preparing courses, and prepping documents necessary for the accreditation process. Others had unique journeys. Therefore, it is important to discuss the timeline of how some of the programs developed the program.

    Rocky River University hosts both a two year post-baccalaureate degree as well as a 3+2 program. According to Dr. Richards, the initial group of students admitted to the program were all post-baccalaureate students. This decision was made so that they could ensure the institution would gain accreditation from the CAATE. At the same time, the first freshman cohort was started; however, the faculty had limited interaction with the pre-professional students prior to their senior year during their transition to the professional phase.

    West Grand University had a similar pathway however, the institution needed to dissolve the established undergraduate education program. In order to this, Dr. Footlight admitted that he had tremendous support from the institution and administration. The undergraduate program dissolved with the final class graduating and that summer, the first class of graduate students started. At the time, the MSAT program was not accredited but the full accreditation process started. To support the length of time for accreditation, the students in the first graduate class stayed for an additional semester for a fellowship class and the institution covered the necessary tuition for that extra semester. The program did receive accreditation from the CAATE and the second cohort of students was admitted after that first class completed their two-year program.

    **Faculty Needs.** Each institution has a unique structure with the number of faculty members and the structure of the department. President Freemont at Light College said,
Graduate students have a very, very common personality trait. It stretches across just about every discipline and every graduate program. And that is that they are self-motivated. And you don’t find that at the undergraduate level, the kids just come to college, they’re motivated, but here for other reasons…

His quote was supported by a discussion on how many faculty members like to teach graduate students. Often, graduate students provoke intellectual conversations and discussions and the addition of research requirements is beneficial for faculty scholarship. The addition of graduate students to an institution that does not have them or to an athletic training program can be very beneficial to the institution. But, it is important to understand the factors that influence faculty involvement such as degree requirements, administrative responsibilities, impact of research, and the use of adjuncts.

**Degree requirements.** One of the potential challenges with the proposed change for the educational degree for the profession of athletic training is that many faculty members and athletic trainers do not possess a terminal degree. Therefore, it was valuable to gain an understanding of the degree requirements for the faculty members at each of these institutions. For example, Redwood State University, St. Stella University, and West Grand University require their faculty members to have a terminal degree, or be ABD, in order to order to be a faculty member in the MSAT program.

On the contrary, Light College and Poseidon College do not require their faculty to have terminal degrees. At Light College, faculty are able to have their master’s degree and still qualify for faculty rank and promotion. At Poseidon College, Dr. Simmons said that the institution is pushing away from tenure and promotion and that faculty are not required to have a terminal degree. These institutions still need to meet standards from the CAATE with having one full-time equivalent faculty member.
Each of the individuals that discussed faculty degree requirements and rank discussed how this decision is heavily influenced by the external accrediting body. Additionally, it is an institution-wide decision. For example, Dr. Waters at Light College discussed that the other graduate programs have the same structure for faculty requirements. If one of the other programs were to change their requirements, the athletic training program would have to as well to satisfy the institution and the accreditation. Dr. Waters did express the value of having faculty members with their terminal degree by saying, “we are moving in the graduate direction, we should have more than one faculty member that has a PhD or at least a clinical doctorate”.

**Administrative requirements.** At St. Stella University, the faculty members have an administrative release due to workload distribution of their additional requirements. Most faculty at the institution hold an 80/20 appointment. As the program director, Dr. Hindwich has a 60/40 appointment and her clinical coordinator’s appointment is 72/27 in order to support time needed for their additional administrative duties. Additionally, the faculty members at Redwood State University receive a ¼ credit hour release for every hour of student research they are involved with. Typically, this results in a three credit hour load for each of the faculty members so they are able to focus on mentoring students and their research projects. Given that it is a requirement from the CAATE to have an established program director and clinical coordinator, both individuals at Poseidon had about a 50% release to complete their administrative duties, which further supported the hiring of an additional faculty member.

**Research.** The involvement of research at institutions is a topic that will be discussed further in Theme Two: What Makes It Graduate Work?; however, the incorporation of research has a significant impact on the faculty at the institution. Each
institution has a research progression built into the curriculum, but not every institution requires a separate research project through a thesis or capstone project. Dr. Hindwich stated that it is valuable for institutions to understand how and if they can support research given faculty knowledge, facilities, and the ability for faculty support. For example, West Grand University does not have the faculty structure to support additional research projects as they are not full-time equivalent due to their clinical responsibilities.

Other individuals discussed the value of graduate student research to the faculty’s tenure and promotion and personal portfolio. For example, Dr. Hampton at Redwood State University said, “we are now producing research at a rate significantly exceeding most faculty on campus, because we have graduate students doing the research and we essentially have the release time to do it”. Additionally, Dr. Hindwich at St. Stella University discussed how well the research fits into the structure of the R1 institution and that the student projects are beneficial as the faculty members came to the institution from tenure-track positions with established research agendas.

*Adjuncts.* West Grand University was the only institution that did not discuss the use of adjuncts in the program. To support the need for the academic requirements, Redwood State University and Poseidon College used adjunct faculty. As discussed previously, Redwood State University has a unique structure with faculty teaching an undergraduate program, an athletic therapy program, and the MSAT program. Dr. Hampton admitted that at one time the undergraduate program had adjunct faculty teaching 70% of the courses. This created problems for the programs and the institution has been working to decrease the need for reliance on adjunct faculty. The program directors from Rocky River University and St. Stella University admitted to using adjunct faculty in their program, but strictly due to their areas of expertise. According to Dr.
Hindwich at St. Stella University, “just because you’re an athletic trainer doesn’t mean you want to be an educator”. Therefore, it is valuable for institutions to use adjuncts wisely in order to support the financial investment as well as the impact on students’ education.

It is valuable to have individuals that are able to read and understand the processes at the institution in order to develop and maintain an effective program. Dr. Hindwich from St. Stella said, “It’s absolutely critical that you learn the process at the institution because they’re all going to be different from public versus private and also just institution to institution”. Successful program directors know how to navigate the waters at their institution in order to provide successful and positive academic experiences.

**Relationship with Athletics.** Athletic training has a history of a positive relationship with athletics departments and therefore, it is no surprise that program connection with athletics departments was involved with several conversations. As with the other topics of discussion, each institution has their own relationship with the athletics department, but it is important to understand the culture of the athletics department and the dynamic between athletics and athletic training.

Part of the strategic plan at Light College was to include an investment in athletics programs in order to boost enrollment and improve the financial situation at Light College. However, President Freemont admits that the development of the athletic training program was not to support the increase in athletic teams. He said, “It’s about serving the needs and career paths of the students. Athletic training students are not workers for the athletic training staff, they are there to learn”. Yet, the staff athletic trainers that were interviewed, Mr. Johnson and Ms. Docker both admitted that the
increase in athletics and the need for their clinical services impact their ability to be effective preceptors to the students.

On the contrary, the clinical athletic trainers at St. Stella University had wanted to start an athletic training program for many years, partially due to the impact of student labor. Therefore, the athletics department and athletic director was very supportive of the development of this program. Dr. Hindwich said

And what we can do for them is our students receive credit hours for their clinical rotation. They’re not student workers, therefore, they’re not hourly workers like the undergraduate intern students are and therefore, we’re not costing the department in that way.

There is a symbiotic relationship between the athletic training program and the department of athletics. Athletic training students are able to receive clinical experience at a Division I institution and additional interns do not need to be hired to help with the clinical load.

Other institutions, like Rocky River University, discussed minimal dependence on the athletics department. Dr. Balaban said that they are just another clinical rotation like all of the other clinical sites that are used. The discussion with Dr. Footlight at West Grand University revealed that the athletic training program faculty each have a clinical responsibility, so they are involved with the athletics department from a service perspective. Dr. Simmons at Poseidon shared an interesting thought about the relationship with athletics:

It’s really weird because on the one hand, we’re kind of making that push to become more autonomous from athletics. But on the other hand, these positions
are becoming more like coaching where you got to work for peanuts to pay your dues to get into those positions.

The athletic training program at Poseidon College was developed at the same time football was added and there was an expectation to share space and resources. Again, his point from earlier is pertinent here; should a nursing program be expected to share the same space as the student health center?

**Interprofessional Education.** The White Paper (Richardson et al, 2013) discussed the value of athletic training programs being housed among other health professions. Several of the interviewed individuals discussed their program location in relation to the interprofessional education that occurs on campus. According to Dr. Balaban at Rocky River University,

…we’re [athletic trainers] really good at interprofessional practice, to be honest with you. We’ve been doing it for a long time… but because of our academic unit that we’re in, we, a lot of times aren’t at the table for these types of discussions, which is really a shame, you know?

Rocky River University has a great deal of interprofessional education built into the curriculum. Dr. Balaban said that the interprofessional initiative is built into the preprofessional phase of the program as students take similar courses as the occupational therapy and physical therapy students. Dr. Michaels, the department chair at Rocky River University stressed the benefit of having foundational classes in the same place as other health professions.

At West Grand University, interprofessional education is completed through a collaborative project among all of the health professions. The project is publically presented at the institution to demonstrate the collaboration and value of interprofessional
care. Dr. Hindwich at St. Stella University said that there are minimal health professions at the institution; however, the athletic training program began collaboration this year with the medical school and nursing school in order to be able to share the simulations and cadaver labs. Additionally, Dean Bend at Poseidon College said the institution has “…a fairly rich healthcare foundation”; yet, Dr. Simmons says there is little collaboration among health professions. Light College and Redwood State University do not have similar health professions at their institution, therefore there is no interprofessional education.

**Theme Two: What Makes It Graduate Work?**

During many of the interviews, I had an overwhelming feeling that we do not have a firm understanding of what characteristics need to be in place to classify these entry-level professional programs as graduate programs. Dr. Simmons at Poseidon College said,

Okay, well if you look at the athletic training piece of it, at the end of the day, we have the same knowledge, skills and attributes as undergraduates. In our case, as I said we have been purposeful about doing extra stuff. But then there’s things that you do because it is synonymous with graduate education.

Additionally, Dr. Hampton at Redwood State University discussed how adding a paper to your class does not make it qualify as graduate work.

Dr. Hindwich at St. Stella University said, “But I think that one of the important things to realize is that an undergraduate professional level program and a graduate professional level program, those are different programs, and they should be”. There are discrepancies in the areas discussed below that can help define how an entry-level master’s program can be classified as graduate education. These would be the
components of the admissions process, clinical experiences for the students, research implementation, and overall program quality. Each of these subthemes will be discussed below.

**Admissions Process.** Each institution has varying admission requirements for students, even despite the model of the program. For example, Light College is a five-year program and only accept students that have graduated from Light College with a Bachelors of Exercise Science Degree. Redwood State University and St. Stella University are two-year post-baccalaureate programs; yet, St. Stella University requires 50 hours of observation and Redwood State University does not require any. The variation in admission requirements (Appendix H) and pre-requisite courses (Appendix I) are unique for each institution which questions the notion of what makes this graduate education.

Dr. Hampton at Redwood State University said that handling pre-requisites for incoming students is a challenge. It is important for the program director to be able to accept or reject a course based on the syllabus or the course catalog description and that CAATE has given ELM programs the ability to be flexible with these decisions. However, at Redwood State, students are able to take up to four pre-requisite courses while enrolled in the program. Dr. Hindwich feels that some of the courses offered at the institution are very strong and that enrollment in these courses would provide students with a strong foundation for the program and also become dual credentialed.

From an enrollment management perspective, the admission process is discussed at institutions like Light College and Poseidon College. The structure of their athletic training programs is used as a positive recruiting tool for students. At Light College, coaches in the athletic department are able to use the program as a way to secure student-
athletes who are interested in a career involving athletics. Additionally, Dr. Bend at Poseidon College discussed how the pre-requisite courses for the 3+2 option give students the opportunity to opt out of the athletic training program, but remain at the institution in another health care field because of the interprofessional education for pre-requisite courses.

Dr. Hindwich at St. Stella University discussed that she has had several applications from non-accredited athletic training programs apply for the two-year post-baccalaureate degree program. The students fit the pre-requisite requirements and admission criteria and are able to be admitted. Yet, these were her thoughts about these students.

You know, what’s interesting about that, and I’m looking at some of my applicants, one of the things that we do see a lot of, we see these undergraduate non-accredited athletic training or sports medicine degrees. And, so the coursework they’ve taken is the coursework of the accredited athletic training education program. For whatever reason, they may have discontinued their program, maybe the program lost accreditation, maybe they didn’t decide to go that route, but they have a full-fledged undergraduate athletic training or sports medicine degree.

While they fit the necessary criteria for the program, they are often burned out from the clinical hours they experienced in their undergraduate program. Additionally, they have received a similar education to what is being taught in these professional graduate level programs so they often feel unchallenged. Several other individuals discussed the direction of undergraduate athletic training programs if the education requirement for
entry-level education were to shift to a professional master’s degree; yet, most were unsure about the direction.

Clinical Experience. Mr. Johnson, the head athletic trainer at Light College, said this about graduate students, “clinically, they are still pretty green, their skill is about the same. But they are a more mature student and haven’t switched majors. The commitment level is much higher”. This is a positive quote about the experience of entry-level master’s students in their clinical experience. However, some institutions, such as Light College, Rocky River University, and West Grand University are working hard to provide a graduate experience for their students in their clinical experiences.

The sites that previously had an accredited undergraduate program have had to add clinical sites in order to provide different and/or advanced experiences for the graduate level students. Especially at Light College, where students start clinical rotations their junior year, Dr. Waters has been working to establish clinical sites and preceptors that will only host graduate students. Given the educational structure of many athletic trainers, that has proven to be a challenge at Redwood State University. Dr. Hampton and I discussed that there is a preceptor at a clinical site that has his bachelor’s degree. He had a bad experience with a student from the graduate program and has requested to not host any additional graduate students. Additionally, others have discussed that preceptors are not satisfied with the education the graduate students are receiving; however, Dr. Waters believes a great deal of this thinking is due to the different in pathways from their educational experiences to those of the current students.

Several sites, such as Light College, St. Stella University and West Grand University have begun to think about or implement distance learning into the clinical experience for students. By allowing students to seek internships or clinical experiences
off-campus and outside of the traditional sites used, it allows students the ability to focus on a career path that they are interested in and also helps to expand the potential to offer those sites to future students. At Light College, students are able to complete a distance rotation once their data collection is complete and they are in the writing states of their thesis.

Dr. Balaban at Rocky River University said,

…what we’re doing more of is we’re increasing the rigor and the quality in the autonomy of the students from these experiences. I think hours aren’t as big of a concern, but more of the quality of the experience is our concern.

His point is very valuable in relation to the type of clinical education that is being offered to the students. Some institutions have hour requirements for their clinical experiences and some have increasing hour expectations between the first and second year of the program. Rocky River University believes that it is less about the hour count and more about the quality since the students are already enrolled in clinical education courses in which they are graded for their participation at their clinical rotation.

Research. Research methods courses are spread and developed through each of the MSAT programs; each of which providing an emphasis on evidence-based practice. Of the six institutions interviewed, three institutions require a thesis (Light College, Redwood State University and St. Stella University). Poseidon College offers the option between a thesis and a capstone project. Additionally, Rocky River University requires a capstone project. West Grand University is the only institution that does not require a research component.

Dr. Waters at Light College said, “My opinion is that if there is a mandate that comes down that the master’s degree is the minimum requirement for athletic training,
that programs must have a research requirement to them”. She believes that a research component helps incorporate a critical thinking process that is more valuable than the outcome of the research. She said, “As a health care provider, you need those critical thinking skills and this teaches a different type of critical thinking”. The interviewed clinical athletic trainers also expressed how impressed they are with the research experiments students are conducting.

Dr. Hampton at Redwood State University believes the research component is valuable for students and that it helps define the program as being a “real” graduate program. Her thoughts are as follows,

Number one, you will be a better consumer of research because you will get it on a much deeper level than having somebody just explain it to you having gone through the process you will get what makes it a good study. And then number two, I think you know, I say I don’t care if you want to get a PhD, if you understand research and you understand the process, you also get that the best research that we could possibly be doing is by clinicians, not faculty.

She believes in the value of the required research component and often hears from students that they do not want to continue on to get their PhD, so they do not understand why they need to do research. Yet, she believes it helps to define graduate education.

When the program was developed, Dr. Hindwich at St. Stella University knew that research needed to be a significant component to satisfy the R1 classification of the institution. Therefore, she expects a manuscript style project from her students. The project is considered a non-thesis project because it does not get submitted to the graduate college; however, the students present their research in a graduate research colloquium for their final examination. She relays to the students, “…the end goal is not
really to present or to publish outside of our community…” However, the research helps students gain the autonomy they do not often get in their clinical rotations.

Rocky River University is also classified as a Research University (very high research activity); however, students complete a capstone project. Dr. Balaban stated, “We define scholarship to be pretty, pretty wide”. As discussed previously, he has had students create a children’s book and another create a video project for preceptor training. Despite the type of project completed, students still must submit a written document and present their project in a public presentation which Dr. Richards says is very well received and attended from students and faculty from other health professions.

Poseidon College incorporates the research component through either a capstone project or a thesis. Students are able to choose the option that fits the best during the research progression courses that are established. Dr. Simmons’ said, “To me, the thesis is much more reflective of what should be part of the graduate experience…” However, he did also admit that most of the students choose the capstone option. He also expressed that it is challenging for students to be able to complete the research component due to their academic requirements and clinical experience.

Dr. Footlight at West Grand University said that with the original development of the entry-level master’s program, the faculty wanted to incorporate a research component. However, the faculty has decreased from three faculty to two, each of which having a clinical responsibility in the athletic training clinic. Therefore, the faculty structure is not able to support an additional thesis or capstone project. Yet, the curriculum has been developed to incorporate a research progression.

Program Quality. The aforementioned topics can be described in further relation to program quality and the classification of a graduate program. However, there were
three individuals that specifically discussed the need for attention to program quality of these professional programs. Dr. Waters from Light College and Dr. Footlight from West Grand University both had established undergraduate programs at their institution and transitioned to the entry-level master’s program.

Dr. Waters discussed program quality in relation to the ability to spread out the courses over time in the five-year model established at Light College. She said, “…I think if you want to continue to deliver quality education, it has to be a conversation”. Regarding program structure, Dr. Footlight said, “I don’t know if it’s a one size fits all”. Additionally both of these individuals discussed a struggle with how to ensure students are receiving quality graduate education and they are being treated as graduate students. Dr. Footlight said, “…that’s been my biggest hurdle. It’s how do I make sure that this is rigorous enough to be called a graduate program but still doable for these people who are just out of undergrad”.

Dr. Hindwich at St. Stella University said that she has questioned the quality in relation to the undergraduate programs, as entry-level master’s programs continue to develop. She believes that it will be valuable for program directors to learn which undergraduate programs are graduating quality students that would be the best fit for your institution, which then helps increase the quality of your graduate program.

Dr. Footlight said, “I like that we’re moving towards a professional master’s at the entry-level degree. I do think that’s the right move. However, I don’t think it should be at the expense of quality programs that can’t make the shift”. It will be important for institutions to thoroughly be able to comprehend their ability to support a quality education program while through maintaining institutional support, financial viability, faculty needs, relationships with on-campus programs, clinical experiences and research.
Theme Three: The Right Model

The six institutions represent three different routes for an institution to host an entry-level master’s athletic training program. The traditional routes to receive this degree are for a two-year post-baccalaureate program and a 3+2 program; designed to allow undergraduate students the opportunity to have a traditional baccalaureate experience and then gain their master’s with one additional year at an institution. Additionally, Light College has a unique structure with a five-year program designed only for students with a bachelor’s degree from that institution.

During my conversations it became clear that each program has unique attributes that make one slightly different from the next. Additionally, the type of program was selected because it best fit the ability, structure and needs of the institution and the student body. As Dr. Waters from Light College said, “I think there should be a discussion about all the possible models”. The interviewees discussed both positive and negative reviews of the structure of their program which will be highlighted below.

Two-Year Post-Baccalaureate. Traditionally, the two-year post-baccalaureate degree is designed for students who have a bachelor’s degree from an institution, but did not graduate from a traditional CAATE accredited program. To satisfy the admission needs of the institution, individuals need to meet certain pre-requisites (Appendix I) and admissions standards (Appendix H). Traditional baccalaureate programs with a CAATE accredited bachelor’s program would have many of these pre-requisites imbedded into their curriculum.

For this research, two institutions, Redwood State University and St. Stella only have a two-year post-baccalaureate offering. However, Poseidon College, Rocky River University and West Grand University offer a two-year post-baccalaureate route in
addition to the 3+2 program. Dr. Simmons at Poseidon College and Dr. Footlight at West Grand University both said that while they have the structure for the 3+2 program, the majority of their students are post-baccalaureate students.

Redwood State University has a unique structure in that there are three separate programs the faculty members teach in; an accredited post-baccalaureate program, an accredited ungraded program, and an athletic therapy program that is designed for individuals that want to go to graduate school or to be an extra feeder program for the post-baccalaureate program. The decision to start a graduate level program came as they were seeking to gain an additional faculty member and administration wanted them to add a graduate program. According to Dr. Hampton at Redwood State University, the two-year ELM program made the most sense because “…we know what the program should look like and we knew what content needs to be taught”. She also said,

We had to rewrite all the syllabi and in the undergraduate program, we had six clinical classes and in the graduate program we knocked it down to four. So we really had to think about how to spread that content out and you know, credit hour wise. And we created three research methods courses, those were unique. The clinical courses are unique.

It seemed as an easier process for Redwood State University to adapt this type of program; however, there were significant concerns for the faculty members.

Because each of the three programs need to have individualized coursework, faculty end up teaching three sections of the same course. Additionally, as discussed previously, the use of adjuncts has increased which caused about 70% of the undergraduate programs at one point to be taught by adjunct instructors and has also led Dr. Hampton to believing that the graduate students are possibly receiving a stronger
education because of the consistent faculty members. She said, “I wish we would have transitioned, honestly”. Dr. Hampton said that she has spoken with program directors from other institutions that are looking to add in graduate level work. She said many institutions have pressure from their administration to keep the accredited undergraduate program for positive enrollment; however, she has advised them against it.

The two-year post-baccalaureate program at St. Stella University gained CAATE accreditation in 2013. As discussed previously, the program was added secondary to requests from the clinical athletic trainers and administrative support. This program supported the institution well in that it is a graduate degree granting, research driving institution. The institution was able to support the infrastructure needed for this professional program. Dr. Hindwich had this to say regarding the structure of the program,

…let’s face it, for most students, graduate education – whether it’s professional or whether it’s post-professional is going to be their last hurrah in educational programming, structured educational programming. And so you basically, in my mind, you have to push the foundation to post-professional within those two years.

Foundational courses are an integral part of this type of professional program as students are learning in two years what many institutions, like Light College, are able to span over five.

Additionally, Dr. Hindwich and I talked about the type of experiences that students come to her program with and she said,

I think that is one of the challenges of graduate education is that you really don’t have the time to do this study abroad and do the off campus or out of state
internships and those sort of things because you just have such a finite period of time…the hope is that your undergraduate students, before they come to you, had a full wealth of experiences

Her thoughts support the traditional idea behind these two-year professional programs. Instead of focusing on intense academics and significant hours of clinical experiences in their undergraduate years, students should be able to study abroad, go off-campus and have alternate experiences during their four years of undergraduate education. This way, they are able to focus on their graduate work when accepted to a program similar to the one at St. Stella University.

Rocky River University offers the 3+2 program as well as the two-year post-baccalaureate program. Dr. Richards, who was instrumental in the development of the program said that it was very important that the athletic training program not be used as a feeder program for their physical therapy program. Therefore, the entry-level master’s program fit really well. He said “…we wanted the program to provide athletic training professionals who will work in athletic training”. Dr. Balaban, the program director, echoed his thoughts in that the students that are graduating from the athletic training program are remaining in the profession. Additionally, he said that the addition of post-baccalaureate students has been very beneficial for the undergraduate students at Rocky River. He said that it changes the dynamics in a positive manner; however, the cohort of 3+2 students and post-baccalaureate students enter the professional program at the same time.

West Grand University is designed to have the 3+2 program and the two-year post-baccalaureate program; however, Dr. Footlight said that the he has a few students that are interested in the 3+2 program, but that his graduates have come from the two-
year post-baccalaureate program. When describing his expectations for this program he said,

I really thought that we’re going to have grad students I can push. They’re going to be self-motivated. Like you said, ‘they’re going to be higher level students’. There are some of those, there aren’t as many as I thought there would be. There are still those that are fresh out of undergrad…it’s just that they have to be trained to work at the higher level.

Dr. Footlight’s point reflects back on what Dr. Freemont of Light College said in that faculty like to teach graduate students because of the increased level of education they bring. However, Dr. Footlight could be having a different experience because his institution transitioned from an undergraduate program to the entry-level’s masters.

**3+2 Option.** The programs with a 3+2 program are Poseidon College, Rocky River University, and West Grand University. As stated previously, the 3+2 program is designed for students to be engaged in their undergraduate experience at the institution while also completing pre-requisite requirements for the entry-level master’s program. Typically, during their junior year, they apply for the program and begin their master’s work during their senior year and for one additional year after.

Dr. Simmons at Poseidon College said that it is great because students have the ability to major in whatever they want, as long as they can complete the pre-requisites. He said,

If I have to start it from scratch and I didn’t have to necessarily deal with those different dynamics, I almost… a 3+2 model is best. Because you can spread it out over three years. You can lighten up the course load the third year and have more credits for both the project and for doing deeper clinical experience. Because to
me, if you’re going to do a 3+2 program and you have them doing coursework anyway, well, why not have them get a jump and start on clinicals.

By spreading the education out over five years have the ability to attract students to the master’s program that are really dedicated to the career of athletic training. Dr. Bend at Poseidon College also said the following,

One other kind of, I think benefit for us is if we have the students coming in as undergraduates, there really is a lot of similarity between health care programs and students don’t always know what they want when they first come on campus. Many of our programs like exercise physiology or athletic training or even physical therapy share many prerequisites. So there is some option early on for students to change their mind as they look ahead at what programs have to offer.

Other institutions have also echoed these thoughts as being beneficial for the institution.

Dr. Balaban at Rocky River University said that 3+2 professional programs are unique on their campus because the census stays high. The students that often move out of the athletic training track remain at the institution and find an alternate major. This is a very positive attribute for athletic training programs as the enrollment numbers are typically lower; therefore, if they are able to attract and retain students at the institution, it is a benefit.

Additionally, Dr. Richards at Rocky River University expressed that the 3+2 program allows the curriculum to open up and allow students to have more of a liberal arts experience. Traditional accredited athletic training programs require a great deal of students to meet the academic and clinical requirements and therefore, students are not often able to have a well-rounded college experience. Dr. Richards said that many students at Rocky River University are able to study abroad. Additionally, students are
able to participate in athletics. Athletics participation was a conversation with Rocky River University, West Grand University and Light College.

The additional benefit of a 3+2 program is that students have the opportunity to earn a two-year master’s degree for a decrease in tuition. Dr. Balaban and Dr. Simmons discussed this benefit, but it was also discussed at length with the other institutions previously. For the senior year, students are able to have master’s level courses and still pay undergraduate tuition rates, apply undergraduate student loans and merit/institutional aid, and additionally qualify for work-study programs.

As discussed, West Grand University also hosts a 3+2 program at the institution; however, students are not choosing that option. Dr. Footlight expressed that he has received feedback from students that they are disappointed they are not able to work with patients until their senior year when they are officially a part of the professional program. Students in the pre-professional phase are able to assist in the athletic training clinic, but they mostly fold towels, fill coolers, etc. because they have not been tested on the necessary competencies to help with patient care. He recognizes that there could be further emphasis to improve this part of the program; however, he does not have the faculty structure to support a change.

5 Year. Light College is the only institution that uses the five-year model for students to be able to obtain their MSAT degree. The five-year model is really not much different than the 3+2 model; however, students must be in the exercise science program at Light College in order to qualify for the program. Dr. Waters said that she does not feel that many people realize that the competencies can be spanned over time and across more than one degree. She said,
Why don’t we not reinvent the wheel, like we always try to do in athletic training. And follow in the footsteps of what some of the other professions that have been successful in making a transition, and do a similar model.

This structure fits well at Light College because Dr. Waters says it, “…breathes a little new life into it because we can be more creative. We aren’t just stuck in the competencies all the time”. She also said that it has granted them the opportunity to include additional courses like manual medicine and advanced emergency medicine so the students are able to graduate with advanced experiences. Yet, they are still able to stick to the liberal arts requirements as the core liberal arts courses are completed by their junior year.

She also echoed the point made earlier about the 3+2 program in that individuals are coming to the institution for athletic training and remain at the institution despite continuing into the professional phase. She said,

They may not be becoming athletic trainers, but we’re bringing them in the front door. And if they do exercise science or sport management or whatever it is they do, it is because they end up right at Light College.

Dr. Water said the program is also valuable because it helps Light College remain competitive with other schools in the area, especially public students. In fact, Mr. Johnson and Ms. Docker, the clinical athletic trainers, said that the coaches have been able to use the program, and the other similar masters programs, as a recruiting tool which has been beneficial for their enrollment numbers.

I talked with the clinical athletic trainers about the type of student they are seeing with the graduate program and Ms. Docker said, “They are a little more set in their career path, they are a little more mature, they understand the difference between student-athlete
and athletic training student and their professionalism has sort of taken it’s natural progression”. The students are “a little bit older and a little bit more mature”, according to Dr. Waters, which is beneficial to their educational experiences.

Dr. Waters and I did discuss that the faculty are working to balance how to distinguish the relationship between their undergraduate work and their graduate work; especially because the curricula for the pre-professional and professional programs mesh with one another. She said, “…how do we prepare them for the next step? We need to do a better job of transitioning them as a program and an institution and treating them different…that is one of the biggest challenges”. From the clinical side, Mr. Johnson and Ms. Docker expressed that they are able to develop a better trusting relationship with the athletic training students. This relationship helps them be able to give students more autonomy their senior year which only improves their clinical education.

Research Questions

Research Question 1: What internal and external influences have impacted the creation of the examined CAATE accredited entry-level master’s programs?

Several factors are involved with the creation of CAATE accredited entry-level master’s programs, despite the structure of the program developed. Each of the six institutions represented with the interviews had common themes of what internal institutional factors influenced their development. These factors include the following: institutional support, availability of resources, and department location. Additionally, external factors exist that impacted the development of the entry-level master’s programs. These factors include the government, institutional accrediting agencies, and the market.

Internal Influences. Institutional support. Superficially, institutional support is valuable with the development of new programs. However, these interviews reveal that
the need for institutional support is needed on many levels. Most of the interviewees discussed the multi-step approach that was necessary in order to gain approval for the addition of the new program or the transition and adaptation from an undergraduate program. It takes as little as one person in an administrative positive to believe in the potential for the program to help support the approval and development. For some institutions it was a department chair and others a dean. Light College had support from the president and vice president and St. Stella University had backing from a powerful athletic department and athletic director. Interestingly, many of the administrators that were supportive of athletic training programs at the examined institutions had previous positive experience with a baccalaureate athletic training program. Many supported the development of the entry-level master’s programs as it better aligned them with other peer health professions.

Additionally, several of the stories from the program directors represented the value in having faculty members at the institution supportive of the development of the entry-level master’s professional program. For institutions that do not have other professional programs, there can be a significant misunderstanding about the value of the graduate degree. But, it is valuable to have faculty members that understand the difference in an undergraduate and graduate professional degree in any field, but in athletic training specifically. Clinical programs like athletic training are often misunderstood on campuses anyways, and the transition to an entry-level graduate degree can enhance the discomfort felt by many.

Private institutions also have an increased reliance on faculty support. The individuals employed at private institutions talked about the need to have faculty support in order to get the program and curriculum approved by some version of a faculty senate.
or an academic program committee. At these private institutions, the understanding is critical as the faculty members are able to vote to approve to reject the program moving forward to the board of trustees. Therefore, program directors and other supporters at the institution must work diligently to ensure faculty members have a clear understanding of the education process, the focus and direction of a professional entry-level master’s athletic training program.

**Availability of resources.** Institutional support extends beyond understanding from administration and faculty and trickles into the availability of resources. Originally, this document referred to resources as only encompassing financial backing; however, the conversations that the need for resources extends beyond simple financial means. Necessary resources for the development of an athletic training program include faculty, physical space, financial support, clinical sites, and additional preceptors.

To meet the demands of the CAATE, institutions must have a program director that has faculty status at the institution. In addition, programs need to have at least one other full-time equivalent faculty member. When developing an entry-level master’s programs, institutions need to be able to support this need to ensure accreditation standards are met. Some individuals discussed that it truly does not take many faculty members to meet the needs of these athletic training programs due to the small class sizes; however, proper faculty members need to be available to support the course load, credit hour requirements, and implementation of research. Two individuals were not involved with the development of the curriculum and discussed major revisions to the program in order to add additional courses, research requirements, and the implementation of a thesis or capstone project. For one of these institutions, the
curriculum revision came too late and the institution was not able to immediately provide an additional faculty member to cover the course load discrepancy.

Physical space is necessary for athletic training programs, especially as course content requires laboratory space in addition to traditional classroom space. It does a disservice to the clinical and academic athletic trainers to assume that both programs will be able to share the athletic training clinic that is used by the student-athletes. Institutions need to ensure there is enough space for clinical education classrooms and be able to support the equipment that is necessary for that space; including treatment tables, taping supplies, and electronic modalities. Additionally, physical space should include proper office space to support the needs of the faculty.

Some of the individuals in administrative positions that were interviewed made mention the fact that athletic training is not an inexpensive program to start. There is a significant amount of equipment that needs to be purchased or acquired in order to properly support the competencies. Often, this is equipment that is not commonly used in the athletic training clinic and the idea of shared equipment is not always realistic. Institutions need to be able to understand the financial implications of these necessary resources and factor them into the program budget.

The need for financial and physical resources looks much different at an institution that is just developing the entry-level master’s program compared to an institution that is transitioning an undergraduate program to a graduate program. The latter of these programs should already have the number of faculty necessary to meet the CAATE’s standards. Additionally, space should already be designated that separates the clinical and academic athletic training department. The curriculum for an entry-level master’s program and an undergraduate program are the same, in a shortened time period
and with additional courses to support the graduate requirement; therefore, additional faculty should not be necessary. However, the impact on faculty load could be shifted with the addition of extensive research and the development of a thesis or capstone project which could require additional faculty support.

**Department location.** From the information gained from the interviews, it seems that department location truly depends on the other health professions on campus. However, most institutions with other health professions on campus expressed the benefit of having a close relationship, both physically and with support. Interprofessional education was a continued theme throughout the discussions. Interprofessional education is valuable in order to enhance the education of the students and provide them with a real-life understanding of the interprofessional practice that occurs daily for athletic trainers. Additionally, it proved valuable for the institutions with multiple health professions to work together to ensure that many pre-requisite courses were similar. By having the same courses, it decreased the need for specialized faculty in 3+2 programs. Institutions should also value that these institutions found that this ensured that students who were self-selecting out of a particular health profession had the opportunity to still qualify for an additional health profession, and retain enrollment at the institution.

**External Influences.** **Government.** The government is classified as an external influence because of the interaction of a board of regents, and other state institutions, with program development. For the purpose of this research, a board of regents is internal to an institution; however, it is a product of governmental influence. Two of the examined institutions are public institutions, both of which discussed the impact of these external bodies on the development of their programs. In one case, the influence of the board of regents was very profound. Mostly because of the lack of understanding of a
professional program and also how a professional program would fit into the structure of the other state institutions.

To receive approval for new program development, it is instrumental to examine and involve other state institutions. It is valuable for public institutions to not be saturated with similar degree programs in order to support continued enrollment among institutions. Additionally, there is the potential for other public institutions to challenge the development of the program. At Redwood State University, the program director had received pushback from the other institutions in the state, despite the fact that there was no like program within 500 miles of her institution. Yet, the feedback she received was “what if we want to start a program down the road and you already have it established”.

**Institutional accrediting agencies.** Prior to conducting this research, the conversation on accrediting agencies revolved around the CAATE, the NATA, and the BOC; agencies specific to athletic training. There was very brief discussion on the role of external accrediting agencies; yet, I found out through the interviews that these agencies have an extensive role in the structure of the athletic training programs. It is very important for individuals to have a firm understanding of the expectations of the accrediting agencies.

The area that was discussed the most was the agencies’ influence on the degree requirement for faculty members. This has been discussed at length in this paper, but the accrediting agencies established guidelines and parameters that institutions need to meet. If an agency does not approve an institution to have faculty with master’s degrees teaching in a graduate program, then that influences the type of faculty members as well as the resources needed to develop the program.
Market. The market has a valuable influence on the development of entry-level athletic training programs in many ways. First, it is important to understand that athletic training jobs are available and the need is continuing to rise. This is especially important when accommodating the fact that all of the interviewed program directors said that their graduates are using this degree and remaining in the profession of athletic training and not using it as a stepping stone. Additionally, the need for athletic trainers and an assessment of current institutions hosting an entry-level master’s athletic training program is beneficial information for current undergraduate athletic training programs, similar to West Grand University, as they consider the feasibility of transitioning to a professional graduate degree.

Research Question 1a: How are recent entry-level master’s programs being structured to incorporate an undergraduate education component?

The incorporation of undergraduate education depends on the structure of the entry-level master’s athletic training program. A two-year post-baccalaureate degree does not factor in undergraduate education for students beyond the expectation of meeting course pre-requisites. However, 3+2 programs can have more involvement on the undergraduate education of athletic training students, but it depends on the involvement of the faculty members. Some 3+2 programs are designed so that students complete their undergraduate experience; they study abroad, participate in athletics, join Greek life, and participate in other extracurricular activities while also completing the pre-requisite courses for the graduate athletic training program. Faculty members do not have involvement with these student prior to their senior year, when they have been accepted into the entry-level master’s program.
On the contrary, 3+2 programs can involve additional athletic training experiences for athletic training students. Clinic observations and selected courses during their undergraduate experience can lead to students being more involved in the athletic training program prior to their acceptance. West Grand University discussed how a lack of more involvement during the undergraduate experience is causing students to shift away from the 3+2 track and move into other degree programs. Perhaps there should be more faculty involvement during the undergraduate years to retain students and keep students engaged in athletic training.

A unique structure to be more involved during the undergraduate experience is the five-year model. Light College was the only institution to have this structure, but it allowed for the athletic training curriculum to be spread over a five year period. Students and faculty are involved with one another through courses and outside activities from the beginning of their experience at the institution. The course work and competencies are able to be spread over the five years the students are at the institution however, their clinical experiences do not start until their junior year.

Redwood State University has maintained the accredited undergraduate athletic training program, in addition to the development of the entry-level master’s program and a developed athletic therapy program. As institutions consider the benefits of an entry-level master’s athletic training program, this is one design that could be considered in order to continue to incorporate a bachelor’s degree in athletic training. However, Dr. Hampton, the program director has said that even with five faculty members, it is challenging to be able to provide a quality educational experience for all involved students.
Research Question 1b: What are the financial implications of the creation and sustainability of an entry-level master’s program?

The overwhelming feeling from some of the administrators interviewed is that athletic training programs are generally small, so financial resources are not as great as other academic programs. However, the costs necessary for the initial development of an athletic training program, either undergraduate or graduate, are great. Athletic training programs require faculty, space, materials, adjuncts, and an operating budget that is able to support the ongoing needs. When programs are looking to transition their degree program, instead of starting new, there is the potential for there to be no additional cost to the institution. Undergraduate athletic training programs and entry-level master’s programs follow the same curriculum guidelines and standards; therefore, the outlay should look similar.

Many individuals discussed how the addition of a graduate program, specifically athletic training, has been beneficial for the institution. Graduate programs tend to be self-sustaining programs as graduate students are paying tuition which supports faculty salary and the funding of equipment. Therefore, the financial implication of adding an entry-level master’s program has the potential to be very positive in the short and long term.

Research Question 1c: How are faculty load and structured impacted with implementation of an ELM program?

The institutions had a range of two to five faculty members involved with the athletic training programs. The range demonstrates that institutions are able to have flexibility with the number of faculty that are able to be sufficient to provide a quality education to students. Yet, with any degree program, athletic training programs are
always looking to grow and develop and expand their faculty structure to be able to provide more opportunities for students.

The structure of the faculty and the load of the faculty greatly depends on the design of the entry-level master’s athletic training program. Institutions with a 3+2 program might require more faculty members to incorporate involvement with undergraduate students. Programs with a two-year post-baccalaureate degree could possibly support higher numbers of students, which would require additionally faculty members.

It is also important for programs to consider the implementation of additional influences such as administrative release times for the program director and clinical coordinator and load releases for mentoring and research, which is institution dependent. The implementation of a thesis or a capstone projects requires additional needs from faculty members. First, faculty members need to be competent in research methods in order to teach the information to the students. Secondly, the faculty need to be able to mentor students and supervise research projects. As discussed, graduate level research is beneficial for the students’ experiences and make them better consumers of research; however, research has positive benefits for faculty as well as they continue to support their own lines of scholarship.

An additional facet of faculty involvement is the use of adjunct professors. Four institutions discussed the use of adjunct professors in their educational model. Three institutions used adjuncts more to support the educational quality and take advantage of the experiences of others. For example, a registered dietician teaching a nutrition course or a swimming and diving athletic trainer teaching an upper extremity rehabilitation
course. One institution, Redwood State University, reported the use of adjunct faculty to support the course load of the graduate program and the undergraduate program.

Adjunct faculty can prove to be very beneficial for clinical programs in that adjuncts are often select to provide advanced education into an area of expertise. Students can gain a significant amount of information from adjunct faculty members as so much of athletic training is based on experiences and learning different techniques. However, reliance on adjunct faculty to support the needs to the program load can prove to be disadvantageous. Students need consistent educators and rotating adjunct professors can cause student to receive inconsistent messages and have a challenging time demonstrating mastery with their clinical competencies and having a complete understanding of the educational expectations of the BOC exam.

**Research Question 1d: What are the outcomes of the students graduating from entry-level master’s programs?**

Retention in the profession has been one of the most beneficial things about students graduating from an entry-level master’s program. Program directors expressed that students are using the degree program as way to the reach their destination of an athletic training career and less of a stepping stone to other health care professions. Additionally, students are obtaining employment in various types of settings; however high schools were discussed most as the avenue for employment. As more mature, older adults with their master’s degree, perhaps human resource departments look more positively on their experiences versus a student coming out of an accredited undergraduate athletic training program.

Given the length of time the interviewed programs have been operating, I was unable to get a strong sense of the actual benefit of an entry-level master’s program
experience over an undergraduate athletic training student’s experience. Anecdotal conversation would indicate that graduate students are having a positive experience both inside the classroom and with the clinical rotations; however, it is hard to discover additional outcomes in talking with program directors and administrators.

**Research Question 1e: What are institutions using to promote competitive admissions?**

Financial benefits could be considered one of the most common ways institutions are promoting competitive admissions. The conversation in athletic training is that students should not have to pay a significant amount of money to earn their master’s degree after already facing the financial impact of undergraduate education. The 3+2 programs offer the opportunity for students to complete one year of their graduate work while paying undergraduate tuition; additionally, financial aid and institutional discounts and merit aid factor into this cost. Additionally, institutions have offered graduate assistant positions and the ability to hold part-time employment to help subsidize the cost of the graduate program. To retain students, the five-year program offers the opportunity for a significant discount on the graduate per credit rate.

It is beneficial for institutions to find some sort of niche and unique experience that can be offered to students to promote competitive admission. This can involve a course that offers an additional certification upon completion, such as certified strength and conditioning specialist (CSCS), emergency medicine technician (EMT), or CPR instructor certification. Dual credential individuals could have more of an advantage when applying for employment.

The addition of unique clinical experiences could prove to be very beneficial for students and programs alike. Several individuals discussed that if the profession of
athletic training changes the entry-level degree requirement, that more students will be
pursing internships and residency programs following graduation from an accredited
entry-level master’s athletic training program. For example, currently, if a student wants
to gain employment in the NFL, a traditional route would be to establish a summer
internship with the NFL and then attend a graduate school in which they can be employed
as a graduate assistant and work Division I football. However, a change in the degree
requirements will eliminate graduate assistantships for certified athletic trainers, creating
a reliance on internship experience. It would be valuable for institutions to invest in
creating connections to develop advance clinical opportunities to make students more
likely to be selected for specialized internships. Several of the interviewed institutions
discussed this opportunity could be viable through distance education; yet, not many have
pursued this option.

For institutions with a 3+2 program, it is beneficial to be able to promote that
students will be able to obtain a comprehensive undergraduate experience and still be
able to graduate in five years with a master’s degree. Promotion of athletics
participation, Greek life, and study abroad opportunities can prove to be attractive to
students who are looking for a well-rounded undergraduate education and experience,
with the opportunity for advanced graduate work. Additionally, it is valuable for private
liberal-arts institution to promote that students are still able to gain an enriched liberal
arts experience despite the requirements of the degree program.

The involvement of a research component can prove to be an attractor or keep
students away from a certain educational program. However, the general thought is that
graduate education for athletic trainers should include a research component, through the
involvement of a thesis or a capstone project. Students are either interested in the
involvement of research for their own professional desires or have no interest in partaking in research. Yet, it is a valuable aspect of graduate education and institutions need to decide the best way to promote the benefits of the research component.

Summary

A multitude of factors impact the creation of entry-level master’s programs. Through discussions with individuals at these six institutions, it seems as there are common factors such as institutional support with approval, finances, and additional resources. Also the institutions had common themes with faculty, research, and clinical experiences. Yet, at this point in time, there is no gold standard for what an entry-level master’s program should look like. Programs vary in time structure, course content, credit hour load, research component, clinical education requirements, faculty structure, and level of institutional support. While it is valuable to have variances between programs, I think it more from the notion that these programs are continue to find the best structure in order to make this a worthwhile graduate education.

When developing or transitioning an entry-level master’s athletic training education program, it is most valuable for a program director or an administrator to fully understand the needs and demands of the institution. The structure of an institution’s approval process, financial resources, and overall level of support is crucial in the viability of a graduate program. The decision to create an entry-level master’s program needs to be a well-thought decision in order to ensure longevity.

These newer entry-level master’s programs are continuing to grow and change in order to find ways to best serve their students. The changes involve advancing clinical education, incorporating additional research requirements and adjusting faculty structure to best meet the needs of the students. While there is no gold standard, it is valuable for
the profession to have programs that are dedicated to growing and changing their program to adapt to the needs of the student body and the direction of the profession.
CHAPTER V - DISCUSSION

The purpose of this research was to examine the internal and external influences that impacted the development of six institutions that have a CAATE accredited entry-level master’s program that has received initial accreditation within the last five years. This chapter is going to highlight the major themes extracted from the data collection and establish a comparison to current literature. Additionally, a new conceptual framework will be introduced which highlights the findings in relation to the theory adapted from Lattuca and Stark (2009). The themes and conceptual framework lead to the discussion of guidelines and recommendations for institutions wishing to develop or transition to an entry-level master’s athletic training program. The development of these guidelines have highlighted some gaps in the literature and areas for future research. I will discuss the limitations with this research study and the gaps in the literature at the end of the chapter.

Summary of Major Results and Comparison to Literature

Knowing the Institution

Program development is most successful when the intricacies of the institution are known and addressed. If an individual, such as a program director, wants to start the transition process to an entry-level master’s program, it would be valuable to have a decent understanding of the processes at the institution. The development of a new program, like an entry-level master’s program, is impacted by several internal and external factors. In order to navigate through these factors, many of which are uncontrollable, it is essential to truly know how program development operates at each institution.

Support. It is important to have institutional support when developing a new program as it is essential that new programs help support the mission, goals, history, and
culture of an institution (Stark & Lattuca, 2009). It is valuable to have at least one person in an administrative position who is interested in championing the development of a program. The person can be a dean, a department chair, or even a program director; however, someone needs to be able to make connections with the rest of the administration and faculty structure at an institution. The individuals who provided the most support for program development in this study had previous experience with an athletic training program at one point in their professional career.

The development of a new program is an extensive process that requires many steps of approval involving shared decision making with trustees, president, administrators, and faculty members (Stark & Lattuca, 2009). During this approval process, some institutions discussed how individuals at the institution did not understand what an entry-level master’s professional program was. Administrator and faculty members questioned the legitimacy of the degree in comparison with other graduate programs at the institution. This highlights the need to have individuals at the institution who are knowledgeable and supportive of this type of degree program. This understanding is especially valuable at private institutions as faculty members have more input into the addition of new academic programs.

The development of academic plans is dependent on if an institution is classified as public or private (Stark & Lattuca, 2009). Often at private institutions, faculty members are responsible for the approval of academic programs and curricula changes due to involvement on a faculty senate committee or a curriculum review board. Academic programs and curricula changes at private institutions still involve a board of trustees, but the faculty are often considered the owners of the curriculum. Several of the interviewees expressed that it was challenging to get faculty members to have a true
understanding of the degree and also help them understand the benefits of having a professional graduate program. This indicates that it is valuable for individuals to be cognizant about properly educating individuals on campus on what a professional entry-level master’s degree is and the potential benefits for the whole institution.

Public institutions face the involvement of educational boards and a publicly elected board of trustees or board of regents. These individuals are valuable in ensuring a change in existing program does not result in a significant cost impact on state resources (Stark & Lattuca, 2009). It is crucial for the board of regents to have a firm understanding of the purpose, direction, and development of an entry-level master’s program. Redwood State University faced challenges with the board of regents and the program director creatively invited the questioning members to the institution to provide them with a firm understanding of the professional program and for a full examination of the established resources. This means that individuals do not always understand what a professional health program is.

Faculty. As stated previously faculty are key players in the actual approval process of a new program. Additionally, it is important to consider the degree requirements, administrative releases and impact of research on faculty members. Each institution, public or private, has specific policies for the degree requirements for faculty members (Stark & Lattuca, 2009). Much of this is determined from outside accrediting agencies; however, it needs to be followed by the entire institution. For example, Light College discussed that the faculty members in the athletic training program are able to have their master’s degree to be tenured professionals at the institution. However, if one of the other graduate degree programs were to change their minimum requirement to a terminal degree, the athletic training program would need to follow suit. This could
cause significant concerns with the ability for qualified and experienced faculty to be able to continue their tenure at an institution. Yet, as the profession continues to grow, perhaps it should be expected that individuals have their terminal degree in order to teach in athletic training programs to ensure that competent, qualified instructors are teaching the courses (Richardson et al., 2013; Rooney, 2013).

For accreditation purposes from the CAATE, institutions need to have an individual who is designated as the program director and another as the clinical education coordinator (CAATE, 2014g). These responsibilities have administrative duties associated with them and individuals usually receive some sort of administrative release time into their load. This has the potential to have an impact on availability for teaching and administration of courses. Additionally, faculty members in clinical programs are expected to maintain their clinical competence in order to be an effective classroom educator (Crist, 1999; Meyer, 2005). As explored through this research, athletic training faculty members are often overloaded with the additional responsibilities of their positions, whether it be academic, clinical, or administrative. These responsibilities, while part of their job, have the potential to create a lack of focus on quality classroom education and research efforts for the graduate students.

The expectation and implementation of research has a significant impact on the faculty in an entry-level master’s program. If a program were to elect to incorporate research into the athletic training curriculum, it is imperative to understand if the faculty are capable of, qualified for and interested in teaching research methods courses and mentoring students through research projects. Additionally, each institution has individual views on scholarship for faculty members. Entry-level master’s programs that are housed at large research-intensive institutions can potentially have more expectations
for scholarship from the faculty members. Other institutions might have more expectations for service and mentoring than research. However, it can be positive for faculty members to be involved with graduate level research as it helps to continue to support personal research agendas.

Faculty requirements from the CAATE for an accredited athletic training program indicate that the number of faculty should “maintain student-to-faculty ratios that allow for effective instruction and evaluation as consistent with health care programs” (CAATE, 2014g). Faculty members can be responsible for developing course content, teaching courses, maintaining mentoring relationships, curriculum advising, service and leadership to the institution, maintaining scholarship, and advising research projects. With the myriad of responsibilities for faculty members it is imperative for institutions to support entry-level master’s programs by providing a sufficient number of faculty to ensure there is sufficient time and effort to providing quality education for the students.

Four of the six institutions report using adjunct faculty to support education in their athletic training programs. Adjunct faculty are considered a benefit to institutions because they provide classroom or clinical education at a lower cost (Langen, 2009). However, there was only one institution which reported using the adjunct instructors to supplement the need for a full-time instructor. With the addition of the entry-level master’s program, the faculty members at Redwood State University discovered that adjunct instructors needed to be used to support the course load of the undergraduate program. The other three institutions reported using the adjunct instructors due to their areas of expertise and ability to provide real-world experiences to the students which, according to Langen (2009), is one of the benefits of adjunct instructors. Adjunct instructors can be very beneficial in a clinical degree program; however, program
Directors need to ensure quality and consistence with the education that all students are receiving.

**Relationship to Athletics.** Several individuals discussed a relationship with athletics, either through financial support, program location, the need for a student workforce, or requirements of faculty members. These conversations proved to be very thought provoking and interesting. The history of athletic training is so deeply rooted in athletics, that it is often challenging for education and clinical athletic training at institutions to be separate entities. Yet, the reality is that athletic trainers are educated to be able to work professionally outside of the collegiate realm, such as in physical therapy clinics, orthopedic physician offices, secondary schools and industrial settings. It is valuable for students to understand this and see it modeled in their own education.

A positive relationship with athletics can have many benefits in the development of an entry-level master’s program. The program director position at St. Stella University was partially funded by the athletics department for the first few years, which support the proper development of the program. However, the department of athletics was intrigued with the development of the program because it would help support the use of graduate students as an unpaid student workforce, instead of needing paid interns or graduate assistant athletic trainers. From my professional experience as a collegiate athletic trainer, I would be negligent if I did not admit to using athletic training students to benefit my professional practice. Students are very beneficial in helping with the menial tasks of the job such as filing water coolers, applying heat packs, and wrapping ice bags. However, a preceptor’s role is to include the students in those menial tasks and express the necessity of those tasks in addition to providing the opportunity for students to engage in supervised educational learning experiences.
**Program Location and Interprofessionalism.** Four of the six examined programs are located in an equivalent of a college of health science. The other two programs are located in a college of education. The placement of the program at an institution is important in providing a detailed picture of the other health professions at the institution as well as the understanding the support of interprofessional education (Breitbach & Brown, 2010). The thought is that if institutions transition to an entry-level master’s program, it will better align the education with other health professions at the institution (Richardson et al., 2013) and will also encourage students to be receptive to socialization and learning about other health professions (Kraemer, 2014).

According to Richardson et al. (2013), 13% of undergraduate athletic training programs are located in multidisciplinary departments, but are the only health profession. This is thought to have a negative impact on the interprofessional education of the athletic training students and the faculty members. Richardson et al. (2013) discussed the idea that if athletic training did align with other health professions it would have positive benefits for faculty members. The positive benefits would include regular interaction with faculty members (Breitbach & Brown, 2010), administrative benefits and that clinical professors would be more recognized if grouped with other health care departments (Richardson et al., 2013). However, I discovered that the institutions housed with other programs, such as in the college of education, do not feel as though they are lacking. In fact, the program director at Redwood State University discussed the benefits of being in the college of education at her institution and that transitioning to would be downgrading.

When housed among other health professions, one of the benefits discussed in this research and in the literature is that multiple faculty members teach pre-requisite courses
for the health professions which increases interprofessional education (Breitbach & Brown, 2010). I can see this as being a tremendous benefit on faculty load; however, the institutions that did not have other health care professions did not seem to have challenges with pre-requisites. Light College, Redwood State University and West Grand University reported not having any other health care professions at the institution. According to Richardson et al. (2013), 16% of institutions do not have other health care professional programs. Yet, these athletic training programs still have significant pre-requisite requirements that are covered through other areas of the institution or are transferred in (Appendix I). Additionally, all athletic training programs have the same competencies and standards that need to be met. These three institutions are still able to provide a well-rounded education for the students and I am unable to state whether institutions with other health professions are able to provide a more comprehensive education for their athletic training students.

Interprofessional education was discussed at length in some of the interviews, although a great deal was from the institutions that had established physical therapy or occupational therapy programs prior to the implementation of an entry-level master’s program. Clinically, athletic trainers are skilled in interprofessional care as athletic training practice calls for collaboration from individuals in various health care fields. The thought is that more interprofessional education should be included in professional athletic training education to better align with other health care professions like nursing, occupational therapy and physical therapy (Craig, 2006; Hertel, West, Buckley & Denegar, 2001; Rich, 2009; Rooney, 2013). However, institutions that do not have interprofessional education or even other health professional programs should be able to ensure that interprofessional care is a focus in their clinical experiences.
Definition of Graduate Work

Each of the six athletic training programs have received accreditation from the CAATE; however, they each have their own unique features. It is impossible to align the admission criteria and prerequisite courses for each institution. Each institution has a different financial structure for their graduate coursework. The curricula structure and layout are unique to each institution. Clinical experiences are vast and based on the various resources available. Additionally, the research requirements vary between institutions. All of the differences bring in to question, what establishes an entry-level professional program as operating at the graduate level? If each program is so vastly different, how can a program assure they are delivering a quality graduate education? Again, it is evident that there is no gold standard for an entry-level master’s athletic training program.

Admissions. Admission processes for each institution are unique. Admission criteria for each institution can be found in Appendix H. As more entry-level master’s programs develop, it will become increasingly important for institutions to figure out their niche and what defines their program. For example, half of the institutions require observation hours prior to being able to apply to the program. At Redwood State University, this has allowed more international students the opportunity to enter into the program. Additionally, because of Light College’s unique structure of the five-year program, students do not need to take the GRE examination, which is one less expense and less worry for them during their senior year. Yet, some may argue that taking the GRE, creating resumes, and gathering letters of recommendation should be a part of the process towards graduate education as it is a reflection of what is necessary to find a professional job following graduation.
**Finances for Students.** Historically, athletic training students have graduated from accredited undergraduate athletic training programs and continued to receive graduate assistantships which offer tuition remission and a stipend in exchange for gaining experience as a certified athletic trainer. The entry-level master’s model challenges the traditional route for athletic trainers and typically eliminates the ability for students to receive the benefits of the financial aid of this route. Therefore, some institutions have created incentives for students to attend their entry-level master’s program.

For example, Redwood State University and West Grand University have had students gain graduate assistantships through other avenues on campus. The opportunities have allowed students to gain additional experience and also receive tuition remission for their graduate education. At Redwood State University, students have gained graduate assistantships as athletic coaches and with the marketing department. At West Grand University, students have worked as residence hall directors and assistants. These additional experiences are beneficial; yet, are most likely being done primarily for the financial benefit. The program directors said that students are not able to take graduate assistantships, which will interfere with their classes and clinical experiences; however, it would be challenging to not have interference.

Redwood State University also offers in-state tuition for out-of-state students. Given the small number of two-year post-baccalaureate students, this is a very positive incentive and attraction for students looking to gain an experience outside of their normal comfort zone. Additionally, Light College offers the students’ final year of graduate education with decreased tuition, offering half the cost of a traditional credit hour. Given that Light College is growing the number of graduate programs and feeling the financial
benefit of the increased tuition, I would question if this tuition assistance will be available in the future.

One of the major admission features for 3+2 programs, and Light College, is that students have the ability to stay within their comfort zone and remain at their institution for an additional year and earn their master’s degree. These programs are really tailoring to the ease of this transition and additionally promoting this as a financial benefit. Students are able to earn a year towards their graduate degree at a tuition rate in which their undergraduate aid and merit applies, which decreases the overall cost of the program. I can imagine that this option would be very attractive for parents and students who are working to make financially responsible decisions.

A study by Thompson, Coon & Handford (2011) was conducted on physical therapy students after the change in degree requirements to doctor of physical therapy (DPT). Tuition costs were a great concern for DPT students when factoring the student debt they would acquire and how it will impact repayment, saving, lifestyle and career choices. While I do not think graduate education should significantly alter a person’s lifestyle, I think that graduate education is an investment. I attended a post-professional traditional master’s program that did not offer tuition remission in exchange for a graduate assistantship, which is a very rare path. I did receive a small stipend for working at a Division I institution; but I chose to attend a program that was academically advanced, required a thesis, and would be beneficial for my future. The burden of student loans is significant; however, I continue to be satisfied with the education I received and the connections I have established along the way. I believe this establishes the need for institutions to be able to promote their strengths and be honest about their weaknesses so students can make personal and informed decisions.
**Curriculum.** Each institution has the ability to establish its own curriculum. Yet, the development of the curriculum is guided by the competencies from the NATA, the CAATE Standards, and the Role Delineation Study from the BOC. Therefore, there is not a significant amount of room for institutions to veer away from the implementation of these documents. Although there is a progression so that students are able to obtain a further depth of knowledge in athletic training, some institutions have been able to incorporate additional courses, such as a strength and foundations class or an emergency medicine course (Stark & Lattuca, 2009). Both of these courses help to provide an additional credential for the students. Dr. Waters at Light College expressed how they have been able to provide more advanced topics due to the structure of their program.

It seems that 3+2 programs have more flexibility with the additional/advanced courses that can be offered to students; however, it still depends on the number of credit hours in the curriculum. The implementation of research courses also impacts the ability to add additional courses; yet, adding research courses can also be considered as advancing graduate education. It is valuable for institutions to be able to add something additional into their coursework that provides a unique experience for the students. The curriculum for each institution can be found in Appendix J.

There has been an organization-wide push from the profession and from the BOC to have athletic trainers educated in evidence based practices (EBP) and patient care, which been consistent with all health care practitioners (Fish et al., 2011). Several years ago, an addition was made to the NATA competencies which stated that institutions needed to provide education in EBP. At the time of the change, this created a challenge for many undergraduate athletic training programs as the curriculum and course sequences were already very tight, many programs were not able to add in an additional
The majority of program directors discussed how it was very easy for them to implement EBP education into their curriculum because of the need for research courses which was a major benefit for their course structure and curriculum.

**Pre-Requisites.** Pre-requisite courses are valuable so that students have a firm foundation of scientific courses as well as whatever else the institution deems valuable for success in their program (Richardson et al., 2013). Consistent with the rest of the information discussed as part of the admission process, each institution has their own required pre-requisite courses. Because there is no standard for which courses are needed for all entry-level master’s programs, I see this as being a huge challenge for students as they are considering applying for post-baccalaureate work. Redwood State University allows students to take up to four courses of pre-requisites while enrolled at the institution, which can be a benefit for students that have met all other requirements.

Dr. Hindwich and I discussed her thoughts that if the profession moves to requiring an entry-level master’s as the minimum degree requirement for athletic training than additional pre-requisite courses are going to need to be added. I agree with her in that adding additional pre-requisites, can help free up classroom education time for clinical experiences or advanced classes; however, it brings into question the idea of quality. It is difficult for program directors to ensure that incoming students are receiving an education that is up to their standards, prior to being accepted to the entry-level master’s program.

**Clinical Experiences.** While classroom education allows students to gain required knowledge, clinical experience is unique in that students are able to apply that classroom knowledge to real-life practice (Bratta, 2014). Clinical education is structured to be a progression which allows students to develop and practice technical skills but also
helps with soft skills such as interpersonal relationships, social skills, and appropriate attitudes for the work environment (Weidner & Henning, 2002). However, research has demonstrated that students struggle with the time commitment and respect during their clinical education experiences and are often delivering health care before demonstrating mastery of the skills (Heinerichs & Gardner-Shires, 2011; Miller & Berry, 2002; Weidner & Henning, 2002).

As discussed, the traditional route has been for certified athletic trainers to gain additional autonomous experience through graduate assistantships and entry-level master’s programs eliminate that experience for students as they need to be supervised for all clinical education experiences. The decrease in the amount of time for rotations and the elimination of the graduate assistantship route bring in to question the quality and vastness of the clinical education experience that students are getting. Institutions, specifically clinical education coordinators, are charged with the task of providing clinical education experiences for the students that support entry-level clinical education experiences; yet also help to support the rigor and experiences needed for a graduate student.

**Research.** Only one institution did not require an additional research project with the entry-level master’s program, specifically due to the inability for faculty members to support the need. Research was discussed as being one of the most valuable assets of defining and proving that an entry-level master’s professional degree is equivalent to other master’s degrees. However, research and scholarship have proven to have vast definitions. The research requirements for these institutions varied from the development of a children’s book to a full-fledged thesis.
Several factors influence a program’s ability to provide an advanced research experience for the graduate students. First of all, faculty members need to be competent enough to teach the course material as well as properly advise and mentor students through research projects. Secondly, institutions need to have the resources available to support research. These resources include lab space, lab equipment, and data analysis software, among others. Third, there needs to be enough dedicated time in the curriculum to support a proper research progression that allows students to apply a learning-over-time model. It is valuable for institutions to take a hard look at their ability to offer quality research as part of the curriculum.

**Profession Benefits.** According to Mazerolle et al. (2012), 25% of graduates of baccalaureate professional athletic training programs do not actually intend on practicing as an athletic trainer and intend on using their skills in other health professions. This is a challenge for many in athletic training because athletic training is viewed as a destination profession and a stepping stone to other health professions (Richardson et al., 2013). On the contrary, 98% of individuals in graduate professional programs are believed to stay in the profession of athletic training, according to a survey of program directors (Mazerolle et al, 2012). The program directors who were interviewed in this research indicated that the majority of their students have persisted in the profession of athletic training following graduation. They believe that the graduate-level students show a strong commitment to their role as an athletic training student and are dedicated to growing and learning as an athletic trainer, which supports the thoughts of Richardson et al., (2013).

The interview with Dr. Footlight at West Grand University provided interesting data about this topic. West Grand University had an established accredited undergraduate athletic training program for many years and transitioned to a 3+2 program
as well as a two-year post-baccalaureate master’s program. The majority of the students who have been a part of the graduate level program have been post-baccalaureate students. He said he sees fewer students using athletic training as a stepping stone and they are obtaining positions as athletic trainers after graduation. Additionally, he said the three year aggregate pass rate for the BOC for the undergraduate program was between 80-85 percent. The transition to a master’s level program has resulted in 18 students having a 94 percent pass rate for the BOC. While this examination is not the sole factor in determining an individuals’ ability in the field of athletic training, it is one quantifiable measures of success at this point.

The Right Model

Given the uniqueness of these programs, how does the profession determine which model is the best fit for athletic training education? Research has demonstrated that critical thinking skills are improved as age and maturation increases, which can be beneficial for athletic trainers as graduate students and as new professionals working in the field (Artino & Stephens, 2009; Richardson et al., 2013). Yet, on the surface, each of these programs have demonstrated success. Program directors have reported high retention rates, graduation rates, employment rates, and success passing the BOC exam. We minimally discussed qualitative outcomes; however, the program directors reported that exit interviews have revealed that students are satisfied with their education; yet, they are unfamiliar with anything different. Perhaps there is no “right” model and institutions need to do what fits the needs of the institution the best in order to provide a quality graduate education to future athletic trainers.
New Conceptual Framework

In chapter one, I used a conceptual framework (Figure 3) derived from Lattuca and Stark’s (2009) concept on the external and internal influences, which impact curricula and program development in higher education. I developed a new conceptual framework (Figure 7), which provides a more accurate representation of the findings of this research specific to the development of entry-level athletic training programs.

Many of Lattuca and Stark’s (2009) influences were relevant, especially the external influences. External influences have a strong and direct influence on academic programs (Lattuca and Stark, 2009) and the most influential external influences include accrediting agencies, government, and market influences. The representation of these external influences remained the same from the initial conceptual framework, which supports and

The most significant change with the external influences is the focus on accrediting agencies. Institutional accrediting bodies seem to have the most influence over the development of an additional academic program, which supports Lattuca and Stark’s (2009) model. Institutional accrediting bodies impact the acceptance of the program at the institution as well as dictates the degree requirements for faculty members, a discussion that was had several times. Prior to conducting the research, I assumed the most influential accrediting agencies to ELM programs were the BOC, the CAATE, and the NATA. Technically, the CAATE is the only accrediting body for athletic training education; however, they each have a direct influence on the education of students which is discussed in detail in chapter two.

The internal influences that were relevant for the interviewed institutions varied from the proposed influences from Lattuca and Stark (2009). Prior to conducting the research, the proposed internal factors from Lattuca and Stark (2009) were institutional control, program development, purpose, curriculum, processes and resources and evaluation. According to Lattuca and Stark (2009), these factors are all very pertinent, although I did not find this model to fit very well with the needs of entry-level master’s athletic training program development.

Perhaps if each of the proposed internal factors were deconstructed more, there would be more applicability for athletic training program development. For example, the revised conceptual framework includes institutional support, faculty structure, graduate expectations, curriculum approval, resources and athletics. Each of these influences are discussed at length in chapter four; however, it is valuable to compare them to the
original model from Lattuca and Stark (2009). Institutional support and institutional control can be considered similar; however, I found that the use of the term support was a better representation of what the individuals used and desired while developing the new program. Additionally, the original model from Lattuca and Stark (2009) identified faculty as part of the resources needed for development. However, my findings amplified the role of faculty and the impact on faculty structure and load with new program development and I felt it was beneficial to identify faculty as a separate influence. Evaluation was not discussed at length with these individual programs, which will be discussed below for recommendations for future research.

The theoretical framework for this research was derived and adapted from Lattuca and Stark’s (2009) *Shaping the College Curriculum: Academic Plans in Context*. The model proved to be a fairly accurate representation of the internal and external influences impacting the development of entry-level master’s athletic training programs. However, my recommendation for other researchers using this model is to be open to the development of other influences that might not be readily identified with Lattuca and Stark’s (2009) influences. Their model provides a broad understanding for the influences impacting curriculum and program development; yet, it is very likely for discipline-specific influences to be present, such as athletics.

**Recommendations for Developing Programs**

Athletic training faculty members often take an unusual path to become part of an athletic training education program. Individuals often work clinically for many years and transition into the education aspect of athletic training for better hours and a change of responsibilities. Often times, these individuals have not gone back to school to receive a terminal degree or advanced education. Additionally, many faculty have taken a
traditional academic route to their involvement with athletic training program. Whether through clinical experience and then advanced education or directly from a doctorate program, these individuals are program directors, clinical coordinators and faculty in athletic training programs. I think it is valuable to discuss these pathways because changing an undergraduate program to a graduate program at an institution has been discussed as a challenging task. It is valuable to have someone who is able to navigate the waters of higher education and have a thorough understanding of the structure and processes.

**Knowing the Institution**

Knowing the institution is a very vague way of expressing how valuable it is for individuals to understand the intricacies of their institution. It is well known that public institutions operate very differently than private institutions. But I am stressing that there is so much for individuals to know about their institution. This includes understanding the current landscape of the institution as well as being able to dive into the past.

I would hope that most program directors have an understanding of the governance structure at their institution. If there is a desire to change the program to an entry-level master’s program, it would be valuable to examine the individuals who comprise the governance of the institution. Were any of the individuals a part of establishing the undergraduate athletic training program? If so, it would be valuable to have discussions with that person(s). The interviewees expressed how valuable it was to have an individual champion the development process. This person does not need to be as high in the institution as the president; however, it does need to be someone with access to individuals to have a conversation about the benefits of an athletic training program. Additionally, from my experience at a small, liberal arts institution, our new
athletic director has a sister who was a Division I athletic trainer which proved to have incredible benefits for our level of support, can a program director find a similar resource?

Program review and curricular change processes are valuable to understand at the institutional level, especially at private institutions. Dr. Hampton at Redwood State University had expressed that when she submitted the MSAT curriculum to the curriculum review committee that there was serious scrutiny and misunderstanding as to why it was so similar to the undergraduate program. It is about educating the powers at the institution to understand the differences and similarities between the undergraduate athletic training program and the entry-level master’s. Additionally, it is valuable to look at the history of these review committees. What types of programs have not been approved? Have there been curricular structures that have not been supported? If a similar program structure has been rejected at an institution, there could either be a long battle ahead or more supportive work that needs to be understand to help individuals understand the program.

If graduate programs exist on campus, the likelihood of the transition of an undergraduate degree could be more likely to be supported. It would be valuable to examine the class sizes, credit hour requirements, and faculty structure. The real challenge for an institution would be if no other graduate programs are present at an institution. If this is the case, the questions to ask would be different. Have graduate programs been proposed before? Has the institution hosted graduate programs in the past? Are the bylaws structured to support a graduate program? Additionally, it is valuable to understand the long-term strategic plan for the institution and have an understanding of the desired direction of the institution.
Finances have been discussed at length throughout the duration of this research; yet, finances often drive the decisions at an institution. Many institutions of higher education have struggled over the past few years to find financial balance. Before proposing a change to a graduate program, it is important for individuals to understand the financial viability of an institution. Many administrators who were interviewed discussed that the entry-level master’s program has been a positive financial addition to their institution; however, it is still a gamble. Additionally, while there are not a significant amount of entry-level master’s programs in the United States right now, there is the potential for exponential growth if a mandate were to be made to change the minimum degree requirement. That forward thinking needs to be considered when an institution is considering the change.

However, it has been discussed that a transition from an undergraduate degree to the entry-level master’s program should not require a significant financial investment from an institution. The curriculum needs to be restructured and the timeline of the program needs to be reconsidered. But, the institution should already have the classroom, lab and office space and the faculty members should be able to support the new degree program.

The reality is that the proposed degree change is not supported by everyone in the athletic training profession. Therefore, it is important for a program director to have realistic conversations with other faculty members and not make unilateral decisions. How would the faculty members feel about the degree change? Additionally, it is important to fully analyze the abilities and capabilities of the faculty. Would there be challenges with the external accrediting body with regards to the attained degrees? Are
faculty members interested in the incorporation of a research component and are they able to teach advanced research methods?

Another valuable aspect of the institution is the clinical athletic trainers, preceptors and the surrounding community. The clinical athletic trainers and many community members provide clinical sites for the athletic training students. It is valuable to receive their input about the potential for an entry-level master’s program in the community and to receive their support for the program. After all, it is important to ensure that students are receiving a quality clinical experience, despite the degree they are pursuing. Dr. Richards at Rocky River University established an advisory board of community members from health fields to understand their viewpoints on the addition of the degree program and receive support for development. He did this to develop an initial athletic training program; however, this can also be applied to a degree transition.

If an institution adapts to the development of the entry-level master’s program, the structure of the program is going to be incredibly important. The discussion points previously mentioned are valuable, but an important area to examine is which structural model will best fit the needs of the program. Light College established a unique five-year model in which there is a great amount of involvement from students during their undergraduate experience in the pre-professional phase. Perhaps this is a viable model for other small, private liberal arts institutions. A similar model is that of the 3+2 program; institutions are able to determine how much involvement there is with students prior to application for the professional phase. The examined institutions have demonstrated the institutional financial benefits as well as financial benefits for the students at these institutions. Lastly, there is the two –year post-baccalaureate model, which is considered the traditional route for entry-level master’s athletic training
education. This route is often at the highest expense for the students; however, institutions are able to have a positive financial benefit by obtaining tuition for two years and summer sessions.

There are many areas of an institution that need to be evaluated to understand the potential for acceptance and the overall viability of an entry-level master’s program. It is not as simple as one individual making the decision that it is a positive route for the profession of athletic training and having the degree move forward. There are many internal and external factors at the program and institution level that have the potential to change the direction of athletic training. As said many times, it is valuable to know your institution and a significant aspect of knowing your institutions is understanding if an entry-level master’s program simply will not be a good fit. It is highly unlikely that all 331 baccalaureate programs will make the transition and I am sure there will be many programs that face institutional barriers too strong to develop an entry-level master’s program.

**What Makes It Graduate Work?**

The requirements from the NATA competencies and the standards from the CAATE are the same for an undergraduate athletic training program and an entry-level master’s athletic training program. However, the development and transition to an entry-level master’s program should not be as simple as changing the structure of the curriculum and awarding an advanced degree. If there is minimal difference between undergraduate and graduate professional programs, perhaps there should be a detailed focus on the content for the undergraduate programs. The expectations for current undergraduate programs could be too advanced for the time and ability of the students. Additionally, the addition of a few additional research papers does not necessarily
constitute as graduate work, so what does? Institutions can amplify their admissions processes and requirements, extend clinical experience opportunities and incorporate research.

**Admissions.** It could be an enlightening process for faculty to work together to establish a new curriculum to reflect the core courses and needs of an athletic training program. It also provides an opportunity for faculty members to examine the strengths and weaknesses of the courses in their program and also examine the pre-requisite courses for the athletic training program. Perhaps the institution has a fantastic strength and conditioning class that students have truly seemed to enjoy. If it fits into the curriculum, programs are able to incorporate it into the core curriculum and not just as a pre-requisite. Additionally, if faculty members are not confident in their ability to teach a psychology of sport course, it could be an example of a pre-requisite for admission and not taught in the core curriculum.

While it can be a cleansing experience, it is important for faculty members to examine the pre-requisites for other graduate courses and/or health professions at the institution. Would it be beneficial to ensure these courses align? Other institutions have expressed the benefit of having pre-requisite courses align with other health professions at the institution because students who self-select out of athletic training are then able to choose another health profession and remain at the institution, which is beneficial for all.

One of the interesting discussions that was had with individuals at two institutions was about student recruitment. One program director said that his involvement with student recruitment has increased since adding the entry-level master’s program. Another said that her college had a full-time recruiter for her college which meant that she and her faculty did not have to recruit students. I would assume that this often would not be
thought of; however, it is a realistic consideration. What would faculty members need to do in order to ensure the cohorts are being filled? Will there be support from admissions and recruiters for the institution? If an institution does have recruiters, it would be incredibly valuable for program directors to work with them to ensure they fully understand athletic training, but the structure and purpose of an entry-level professional program.

**Clinical Experience.** The transition to an entry-level master’s program might not necessarily require more clinical opportunities for students; however, there are many considerations to be made. As discussed previously, there are many athletic trainers who are not supportive of the potential for a degree change and a few of the interviewed program directors had expressed challenges with some of their preceptors. It would be valuable for program directors to have realistic conversations with their established preceptors to understand their level of buy-in for the degree change and for working with graduate level students. Additionally, the preceptors would need to understand that these graduate level students are still entry-level and do not have advanced clinical skills and abilities. Again, reestablishing that this entry-level master’s route is very different to the traditional master’s route which many current clinical athletic trainers have taken. It is important to establish these connections to ensure that students are receiving a comprehensive and beneficial clinical experience, as the importance of clinical education has already been discussed.

**Research.** The addition of research was the most discussed issue in terms of establishing a program as graduate level. Yet, the addition of research is not as easy as adding in a few research assignments into the curriculum. While this is valuable for education, graduate level research extends beyond simple papers. The critical thinking
skills and problem solving processes involved with quantitative or qualitative research cannot be taught in a classroom or through a clinical experience. The addition of a research project through a thesis or capstone project helps instill this level of thinking which can be beneficial to our profession in the future.

Additionally, the topic of evidence based practice has been discussed in this text; however, it is important to explore again with the topic of research. There is a profession wide push for athletic trainers to understand and support evidence based techniques into their practices. To maintain certification with the BOC, there is now a requirement for individuals to submit continuing education credits that have a focus on evidence based practice. By educating these students, the future of our profession, on evidence based principles, we are ensuring that our profession continually pushes to remain similar to other health fields and that we have practitioners who are using techniques which have been proven to be beneficial.

Institutions should be intentional and thoughtful when adding additional research opportunities to the graduate experience. As stated, it is not as simple as adding in a few research methods courses. Faculty need to be able to support the direction and implementation of research, and not all faculty are comfortable doing so. For many faculty members in institutions where scholarship is not a priority, it perhaps has been a while since they conducted an actual research project, let alone advised one. While research from graduate students has benefits for scholarship for faculty members, it is important that these projects are worthwhile and relevant.
Recommendations for Future Research

To my knowledge, this is the first research study examining the development of entry-level master’s athletic training programs. However, given the recent discussions on the potential for a degree change, I would not be surprised to learn of other current research projects. As discussed in the literature review, research on development of athletic training programs is incredibly scarce, which is an area that needs great improvement. A majority of the published research in the field of athletic training is focused on improving clinical practice. This research is highly needed in our profession; however, I would argue that education research is just as valuable and significant improvement is needed.

One of the only means to measure success in athletic training programs is through pass rates from the BOC examination, as discussed previously from Richardson et al. (2013). However, I would argue that there are many more measures of success that would be valuable to study. Student perceptions of their entry-level education immediately post-graduation as well as over a set period of time would be beneficial in understanding the value of entry-level education. As discussed in chapter two, retention in the profession following graduation is very important to athletic training; yet, limited research has been conducted which examines retention from the graduates, only the program directors. It would be very beneficial to conduct research which explores retention in the profession and also individuals’ reasons for leaving the field.

One of the claims to support changing the degree requirement is that there are too many baccalaureate athletic training programs and that the quality of education is decreased as the quantity of students increases. The move to entry-level master’s programs would decreased the number of programs and increase the quality of the
education. However, the only research released has examined the outcomes of the BOC examination; yet, as discussed, there are many other measures of success for athletic trainers. Therefore, a comparison of students from baccalaureate and master’s professional programs would be beneficial to understand demographics, outcomes, motivation, experiences and retention in the profession. As a profession, we need this information to make an informed decision on the future of athletic training education and understand fully the needs of athletic trainers instead of the motivation for the degree change from other health professions.

Another area that should be researched is interprofessional education for athletic trainers. There is limited athletic training research which explores the value of interprofessional education; however, it is found within other disciplines. The White Paper (Richardson et al., 2013) emphasized the value of athletic training program being located with other health professions within an institution; however, limited research has actually explored the benefit for athletic training students. Athletic trainers are great at interprofessional practice as professionals, but the emphasis and practice in education is lacking.

This research is lacking because I studied entry-level athletic training programs that gained accreditation within the last five years and only three of the programs had an existing baccalaureate program. It would be valuable to explore the factors that are influential on established entry-level master’s programs. Perhaps a further exploration into the successes of their programs and their program outcomes would be beneficial in supporting the degree requirement change. Additionally, it would be interesting to repeat this study in five years with institutions that have developed an entry-level master’s
program to see if the influences on their program development were similar to the six institutions in this research.

At this point, the direction of education of athletic training is still unknown, no decision has been made or presented to the public. However, I believe that before a change is in place, more research and empirical evidence is needed to support the change to an entry-level master’s requirement. Individuals in our profession have been producing substantial and influential clinical research; yet, education research continues to be lacking. If the degree change does occur, perhaps it could push for research focused on the improvement of athletic training education and programs.
Limitations

A significant limitation of this study is that it is the first of its kind. There are no other research studies that explore program development within the profession of athletic training and there are very few in other health professions. Therefore, the development and methodology aspects could perhaps be refined to best fit the needs of this research.

Additionally, there are 35 entry-level master’s programs in the United States, and this research examined only six institutions. These six institutions were gained from an inclusion pool of nine institutions; however, this indicates that there are many more stories that could be told. A focus on institutions that have been established and accredited for over five years could provide a different view of entry-level master’s programs to gain more information about the potential future of athletic training.

With qualitative research, my personal story and biases have the potential to have impacted the semi-structured interview protocol that was followed with each of the interviews. However, positioning myself in these interviews was very important in establishing transparency for my position on the degree change, relaying the purpose of the selection of this topic, and relating to the interviewed individuals.
Summary

The aim of this study was to examine the internal and external influences that have impacted the creation of entry-level master’s athletic training programs. The internal and external influences were adapted from recommendations from Lattuca and Stark (2009) in *Shaping the College Curriculum: Academic Plans in Context*. To guide the exploration of these influences, the following research questions were developed and answered during the data collection process:

1. What internal and external influences have impacted the creation of the examined the CAATE accredited entry-level master’s programs?
   a. How are recent entry-level master’s programs being structured to incorporate an undergraduate education component?
   b. What are the financial implications of the creation and sustainability of an entry-level master’s program?
   c. How are faculty load and structure impacted with implementation of an ELM program?
   d. What are the outcomes of students graduating from entry-level master’s programs?
   e. What are institutions using to promote competitive admissions?

A multiple case study approach was used to explore the influences that impacted the development of six entry-level master’s programs. Each of these programs have obtained accreditation from the CAATE within the last five years. Initial communication and interviews occurred with the program directors at each of the institutions. These individuals were asked to recommend other individuals at the institution that were instrumental in the development of the program. The use of snowball sampling allowed
for five additional interviews to be conducted, which resulted in further comprehensive understanding of the development of these programs.

The findings of this research reiterate that internal and external influences are interwoven with new program development and several factors need to be considered when an institution creates an entry-level master’s program. The external influences that impacted the development most commonly were the accrediting bodies, the government, and the market. The internal factors included the following: institutional support, faculty structure, graduate expectations, resources, curriculum, curriculum approval and relationship with athletics. The internal influences were expanded from the initial list to reflect the comprehensive factors that impact program development.

The discussed factors have been collaborated to provide a framework for institutions to contemplate as they consider the development of a new entry-level master’s athletic training program or with the consideration of the transition of an accredited undergraduate program to an entry-level master’s. It is critical for individuals to have a firm understanding of the intricacies of the institution and especially be willing to be open to seeking additional information and creating conversations with individuals at the institution to gain support for new program development.

If a mandate for a change in the educational requirements is established, it will be valuable for current accredited athletic training programs to be realistic about their institution’s ability to host a quality entry-level master’s program. Institutions need to be able to support faculty load, curricula changes, and provide financial support in order to assure the success of the program. A change in the educational requirements for athletic training could be beneficial for the future of our profession, but only if quality programs are established. A change would impact current undergraduate education, the post-
professional graduate programs, and greatly influence the multitude of opportunities students currently have to obtain a graduate degree. In order to ensure our profession continues to progress and provide quality education, we must ensure that quality programs are developed that are dedicated to the advancement of the profession by producing qualified, competent athletic trainers.
REFERENCES


Rindflesch, A., Hoverstein, K., Patterson, B., Thomas, L., Dunfee, H.  (2011). Students’ 
description of factors contributing to a meaningful clinical experience in entry-
level physical therapist professional education.  Work, 44, pp. 265-274.

Lesley University, Cambridge, Massachusetts.

educators’ perspectives on students achieving entry-level clinical performance. 

Schwank W. C. & Miller S. J. (1971) New dimensions for the athletic training 

education: Methods used by entry-level students and the financial impact after 

trainers and exercise physiologists.  Retried from 
http://www.bls.gov/ooh/healthcare/athletic-trainers-and-exercise-
physiologists.htm on April 4, 2014.

Weidner, T. G. & Henning, J. M. (2002). Historical perspective of athletic training 
clinical education.  Journal of Athletic Training, 37 (4 Supplement), pp. S222-
S228.

Dear (NAME),

My name is Jennifer Deranek and I am doctoral student at Western Michigan University. For my dissertation, I am exploring the journey of athletic training education programs, which have transitioned from a baccalaureate professional program to an entry-level master’s professional program. Based on the data I was able to obtain, your institution fits the criteria for inclusion in my study; liberal arts, comprehensive or research institution which has established CAATE accreditation of the master’s level professional athletic training program within the last five years.

I am seeking a diverse group of participants to provide a comprehensive and detailed description of individual pathways to establishing an entry-level master’s program. It is my hope that these detailed descriptions can help provide a framework for other institutions that are considering or beginning the transition to providing an entry level masters professional degree.

I am hoping to interview the individual(s) within your program that were integral in the coordination of the transition process, which is why I am contacting you. Additionally, I am asking to be connected with other individuals within your department or institution that were integral in the transition. If willing, I will ask for program documents (such as your CAATE self-study, curricula structure, etc.) to help further my understanding of your process. Interviews can be conducted in person, by phone or through videoconferencing based on location and your comfort level.

If you agree to participate in this research, I assure you that all information will be kept confidential. Your identity and the identity of your institution will remain concealed. Western Michigan University’s HSIRB has determined this research does not require approval as it is a study of programmatic processes.

I would be incredibly grateful if you would be willing to participate in this research. The potential educational changes that athletic training is facing have raised many questions and I am excited to explore the development of programs like yours. If you are interested in being involved, please respond by email and we can establish a time that works best for your upcoming schedule. I will also follow up with a phone call to see if you have any questions about participation.

Thank you for your consideration,

Jennifer Deranek
586-322-8398
Jennifer.e.deranek@wmich.edu
APPENDIX B

Follow-Up Recruitment Email

Hello __________

I am writing to follow up on a few requests for participation in research for my dissertation. I realize that it is a very busy time in the semester and I am cognizant of your workload. However, I thought I would provide one last request.

My research is titled: The Development of Entry-Level Master's Athletic Training Education Programs: The Internal and External Influences. I am looking to explore further some of the influences that impacted the creation and development of ELM programs. I would do this through a phone interview that would take 60-90 minutes at a time that is most convenient for you. If willing, I will ask for program documents (such as your CAATE self-study, curricula structure, etc.) to help further my understanding of your process. All identifying information will be kept confidential. Western Michigan University's HSIRB has determined this research is exempt as it is a study of programmatic processes.

I would be very grateful if you would be interested in participating in this research study. If you are, please feel free to email me back with a time that is most convenient.

Thank you for your consideration,

Jennifer Deranek

Jennifer.e.deranek@wmich.edu

586-322-8398
APPENDIX C

Semi-Structured Interview Protocol

Participant:

Day/Time:

Institution:

Type of Institution:

Year of CAATE Accreditation:

Program Location within Institution:

Title of Degree:

Statement:
Thank you for your willingness to participate in this interview. Information gained from this interview and document analysis will be used in my dissertation which is exploring the internal and external influences that have impacted the development of entry-level master’s athletic training programs. The Human Subject Institutional Review Board at Western Michigan University has deemed this project to be exempt from approval. However, you are free to stop participation at any time during the interview process. This interview should take between 60-90 minutes of time. All identifying information will be kept confidential. If you agree, we will move forward with the interview.

Initial question:
• Can you describe your athletic training program?

Guiding Questions:

• Did you have an undergraduate program previously? Is it still operational? If not,
  o Can you talk about your experience with transitioning from an undergraduate program to an ELM?
  o Overall, what was the timeline for the change? How long did the process take?
  o Would you say it was an easy change?
• What was the purpose for substantive degree change?
• What/who was the driving force behind substantive degree change?
• External Influences:
  o What process did you have to complete in order to satisfy CAATE, BOC, and NATA for the degree change?
o Are there significant changes in continued requirements from CAATE, BOC, and/or NATA?
o Did you face any governmental influences? Such as feedback/support from the Education Board/Board of Regents; financial concerns; state approval, etc.
o Do you have any other allied health professions at your institution?
  ▪ Do you feel this change better aligns you with other allied health professions at your institution?

• Internal Influences:
o What was your approach with dealing with the governance of the institution? (President, Provost, Board of Trustees, etc.)
  ▪ Have you had the support of the governing body from the beginning?
o Describe the function of the following and any changes that have been made:
  ▪ Curricula
    ▪ Classroom Education
      ▪ Courses
      ▪ Course day/time
  ▪ Clinical Experience
    ▪ Preceptor
    ▪ Time in clinical rotation
    ▪ Clinical rotations offered
  ▪ Faculty (including: load, expectations, courses taught, research, etc.)
  ▪ Placement of degree program within the institution
    ▪ Did you program need to move locations within the institution because it changed to a master’s degree?
  ▪ Evaluation
    ▪ Institution level
    ▪ Program level
  ▪ Finances
    ▪ How (if at all) have financial means been impacted:
      ▪ Program
      ▪ Institution
  ▪ Admission processes (program and institutional)
  ▪ Financial Aid for students
    ▪ Are there financial opportunities for students?
    ▪ Were you previously offering graduate assistantships?
  ▪ Students
    ▪ Has there been a change in number of students served?
    ▪ Can you talk about student success in the following areas?
      ▪ BOC results
      ▪ Program retention
- Dropping for interest vs. removal from program
  - Graduation rates
  - Job placements
  - Qualitative outcomes – exit interview discussion
  - Retention in the profession of athletic training

- Are there any other members at your institution that were involved with the change process that you might be able to refer me to?

**Final Statement:**
Thank you for your time and your willingness to participate in this interview. While I have been able to obtain information from the internet, I would also appreciate any additional supporting documents (i.e. CAATE self-study). If you’re willing, I may contact you in the future for clarifications or additional information.
APPENDIX D

Participant Consent Process

The following provides a description of the process in obtaining participant consent:

1. Self-introduction and introduction of the research topic

2. Presentation of consent form explaining the following:
   a. Purpose of the study
   b. Format of the interview
   c. Explanation of voluntary nature of participation
   d. Explanation of confidentiality

3. Acknowledgement of consent through signing or verbal

4. Introduction of interview protocol
APPENDIX E

HSIRB Notification

Date: November 5, 2014

To: Andrea Beach, Principal Investigator
    Jennifer Sims, Student Investigator for dissertation

From: Amy Naugle, Ph.D., Chair

Re: Approval not needed for HSIRB Project Number 14-11-06

This letter will serve as confirmation that your project titled “Development of Entry-Level Masters Professional Athletic Training Education Programs: The Internal and External Influences” has been reviewed by the Human Subjects Institutional Review Board (HSIRB). Based on that review, the HSIRB has determined that approval is not required for you to conduct this project because you are analyzing a program and not collecting personal identifiable (private) information about an individual.

Thank you for your concerns about protecting the rights and welfare of human subjects.

A copy of your protocol and a copy of this letter will be maintained in the HSIRB files.
APPENDIX F
Informed Consent Form

Western Michigan University Department of Educational Leadership, Research, & Technology, College of Education

Principal Investigator: Dr. Andrea Beach
Student Investigator: Jennifer E. Deranek
Title of Study: Development of entry-level master’s professional athletic training education programs: The internal and external influences

You have been invited to participate in a research project titled Development of entry-level master’s professional athletic training education programs: The internal and external influences. This project will serve as Jennifer E Deranek’s dissertation for the requirements of the PhD in the Educational Leadership Program. This consent document will explain the purpose of this research project and go over the time commitments, the procedures used in the study, and the risks and benefits of participating in this research study. Please read this consent form carefully and completely and please ask if you need additional clarification.

What are we trying to find out in this study?
The significance of the study is to explore the processes of institutions that have transitioned from offering a professional baccalaureate degree in athletic training to an entry-level master’s professional degree. The researchers aim to understand the internal and external influences that impacted the program and degree change.

Who can participate in this study?
Participants are eligible for this study if they have been involved with the degree transition at an institution that is currently offering an entry-level professional master’s degree. Institutions must have received accreditation by the Commission on Accreditation of Athletic Training Education within the past five years, or since 2009.

Where will this study take place?
The settings will vary based on the availability and location of each participating institution and individual. Interviews will take place at a predetermined time that was agreed upon by both parties.

What is the time commitment for participating in this study?
This study will require the each participant to take part in a 30-90 minute interview depending on the individual’s level of involvement during the degree transition. The overall interview time includes obtaining of informed consent to the subjects completion of the study.

What will you be asked to do if you choose to participate in this study?
Participants will be asked to share their experiences during the transition of degrees. Additionally, participants may be asked to share relevant programmatic data such as curricula, CAATE documents, evaluations, etc.
**What information is being measured during the study?**
The internal and external influences which impacted the transition of degree programs will be evaluated during this study.

**What are the risks of participating in this study and how will these risks be minimized?**
To the investigator’s knowledge, there are no potential risks to the participants. Participants will be forfeiting a period of time for the study. All participant and institution names will not be used in any dissemination of data so there is minimal chance for disclosure of sensitive or confidential information.

**What are the benefits of participating in this study?**
There are no direct benefit to the participants. The results of this study will benefit athletic training education programs that are implementing the substantive degree change. Therefore, the results will better the profession of athletic training by providing a guiding framework based off the experiences of other institutions.

**Are there any costs associated with participating in this study?**
There are no costs involved for participants.

**Is there any compensation for participating in this study?**
There is no compensation for taking part in this study.

**Who will have access to the information collected during this study?**
The principal investigator: Dr. Andrea Beach
Associate Professor, Higher Education Leadership
Department of Educational Leadership, Research, and Technology
Director of Faculty Development
Western Michigan University

The student investigator: Jennifer E. Deranek
Doctoral Candidate
Department of Educational Leadership, Research, & Technology
Western Michigan University

**What if you want to stop participating in this study?**
You can choose to stop participating in the study at any time for any reason. You will not suffer any prejudice or penalty by your decision to stop your participation. You will experience NO consequences either academically or personally if you choose to withdraw from this study. The investigator can also decide to stop your participation in the study without your consent.

Should you have any questions prior to or during the study, you can contact the primary investigator, Dr. Andrea Beach at (616) 402-9111 or andrea.beach@wmich.edu.
I have read this informed consent document. The risks and benefits have been explained to me. I agree to take part in this study.

______________________________
Please Print Your Name

______________________________  ______________________________
Participant’s signature          Date
# APPENDIX G

## Program Demographics

<table>
<thead>
<tr>
<th>Carnegie Classification Type</th>
<th>Light College</th>
<th>Poseidon College</th>
<th>Redwood State University</th>
<th>Rocky River University</th>
<th>St. Stella University</th>
<th>West Grand University</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enrollment</td>
<td>&gt; 1,800</td>
<td>&lt; 4,000</td>
<td>~ 23,000</td>
<td>~ 16,000</td>
<td>&lt; 50,000</td>
<td>&gt; 2,000</td>
</tr>
<tr>
<td>Graduate Degree</td>
<td>Master of Science in Athletic Training</td>
<td>Master of Science in Athletic Training</td>
<td>Master of Science in Athletic Training</td>
<td>Master of Science in Athletic Training</td>
<td>Master of Science in Athletic Training</td>
<td>Master of Science in Athletic Training</td>
</tr>
<tr>
<td>Undergrad Degree</td>
<td>BS in Exercise Science</td>
<td>N</td>
<td>BS in Athletic Therapy</td>
<td>N</td>
<td>N - Internship</td>
<td>N</td>
</tr>
<tr>
<td>College</td>
<td>-</td>
<td>College of Health Sciences</td>
<td>College of Education and Human Performance</td>
<td>College of Health Sciences</td>
<td>College of Education and Human Development</td>
<td>College of Health Sciences</td>
</tr>
<tr>
<td>Department</td>
<td>Exercise Science &amp; Physical Education</td>
<td>-</td>
<td>Health Promotion and Human Performance</td>
<td>Department of Therapy and Athletic Training</td>
<td>Health and Kinesiology</td>
<td>Health, Exercise, and Sport Science</td>
</tr>
<tr>
<td># of faculty</td>
<td>3</td>
<td>3</td>
<td>5</td>
<td>4</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Adjuncts</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Credit Hours</td>
<td>32</td>
<td>70</td>
<td>53</td>
<td>70</td>
<td>60</td>
<td>53</td>
</tr>
<tr>
<td>Length of program</td>
<td>1</td>
<td>2/3+2</td>
<td>2</td>
<td>2/3+2</td>
<td>2</td>
<td>2/3+2</td>
</tr>
<tr>
<td># of graduates</td>
<td>1</td>
<td>38</td>
<td>38</td>
<td>31</td>
<td>18</td>
<td>18</td>
</tr>
<tr>
<td>BOC - 3 year pass rate</td>
<td>94%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>BOC - 3 year first time pass rate</td>
<td>89%</td>
<td>92%</td>
<td>97%</td>
<td>96%</td>
<td>100%</td>
<td>94%</td>
</tr>
<tr>
<td>Research</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Research Type</td>
<td>Thesis</td>
<td>Thesis or Capstone</td>
<td>Thesis</td>
<td>Capstone</td>
<td>Non thesis manuscript</td>
<td>N</td>
</tr>
<tr>
<td>Peer Health Professions</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>Financial Aid</td>
<td>decreased tuition</td>
<td>N</td>
<td>out of state tuition waiver</td>
<td>N</td>
<td>N</td>
<td>graduate assistantships, endowed scholarship</td>
</tr>
<tr>
<td>Liability Insurance</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Articulation Agreement</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
</tbody>
</table>
## APPENDIX H

### Admission Requirements

<table>
<thead>
<tr>
<th>Institution</th>
<th>Observation hours</th>
<th>GRE</th>
<th>ACT/SAT</th>
<th>Transcript</th>
<th>UG GPA Min.</th>
<th>Pre-req Min.</th>
<th>Letters of Rec</th>
<th>Medical</th>
<th>Essay</th>
<th>Application</th>
<th>Interview</th>
<th>CPR/FA</th>
<th>Background Check</th>
<th>Drug Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Light College</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>2.75</td>
<td>2.75</td>
<td>X</td>
<td>-</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Poseidon College</td>
<td>50</td>
<td>X</td>
<td>-</td>
<td>X</td>
<td>3.0</td>
<td>3.0</td>
<td>2</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Redwood State University</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>X</td>
<td>X (if GPA below 3.0)</td>
<td>3.0</td>
<td>2</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Rocky River University</td>
<td>-</td>
<td>-</td>
<td>X</td>
<td>-</td>
<td>3.0</td>
<td>3.0</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>X</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>St. Stella University</td>
<td>50</td>
<td>X</td>
<td>-</td>
<td>X</td>
<td>3.0</td>
<td>-</td>
<td>3</td>
<td>X</td>
<td>-</td>
<td>X</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>West Grand University</td>
<td>75</td>
<td>X</td>
<td>X</td>
<td>-</td>
<td>2.7</td>
<td>C or better</td>
<td>3</td>
<td>-</td>
<td>X</td>
<td>-</td>
<td>-</td>
<td>X</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
# APPENDIX I

## Pre-Requisite Requirements

<table>
<thead>
<tr>
<th>Light College</th>
<th>Poseidon College</th>
<th>Redwood State University</th>
<th>Rocky River University</th>
<th>St. Stella University</th>
<th>West Grand University</th>
</tr>
</thead>
<tbody>
<tr>
<td>-</td>
<td>Anatomy &amp; Physiology I</td>
<td>Human Anatomy with lab</td>
<td>Anatomy &amp; Physiology I</td>
<td>Human Anatomy</td>
<td>Anatomy &amp; Physiology I</td>
</tr>
<tr>
<td>-</td>
<td>Anatomy &amp; Physiology II</td>
<td>Human Physiology with lab</td>
<td>Anatomy &amp; Physiology II</td>
<td>Human Physiology</td>
<td>Anatomy &amp; Physiology II</td>
</tr>
<tr>
<td>-</td>
<td>Exercise Physiology</td>
<td>Exercise Physiology</td>
<td>Exercise Physiology</td>
<td>Physiology of Exercise</td>
<td>Exercise Physiology</td>
</tr>
<tr>
<td>-</td>
<td>Biomechanics or Physics I</td>
<td>Kinesiology/Biomechanics</td>
<td>-</td>
<td>Motion Analysis or Biomechanics</td>
<td>Biomechanics/Kinesiology</td>
</tr>
<tr>
<td>-</td>
<td>General Psychology</td>
<td>Intro to Psychology</td>
<td>General Psychology</td>
<td>Intro to Psychology or Psychology of Sport</td>
<td>Psychology of Sport &amp; Physical Activity &amp; General Psychology</td>
</tr>
<tr>
<td>-</td>
<td>General Chemistry</td>
<td>-</td>
<td>Chemistry w/ Lab (2 sem)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>-</td>
<td>Statistics</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>-</td>
<td>-</td>
<td>Healthy Lifestyles</td>
<td>-</td>
<td>Personal Health and Wellness</td>
<td>Exercise Evaluation &amp; Prescription</td>
</tr>
<tr>
<td>-</td>
<td>-</td>
<td>Emergency Response</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>-</td>
<td>-</td>
<td>Foundations in Nutrition</td>
<td>-</td>
<td>-</td>
<td>Nutrition</td>
</tr>
<tr>
<td>-</td>
<td>-</td>
<td>Introduction to Pharmacology</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>-</td>
<td>-</td>
<td>Teaching Neuromuscular Conditioning</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>-</td>
<td>-</td>
<td>Biology w/ Lab</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>-</td>
<td>-</td>
<td>Physics w/ lab (2 semesters)</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>-</td>
<td>-</td>
<td>Ethics</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>-</td>
<td>-</td>
<td>Pre-calculus</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>-</td>
<td>-</td>
<td>Medical terminology</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>Prev &amp; Care of Athl Injuries</td>
<td>-</td>
</tr>
</tbody>
</table>

199
APPENDIX J

Curriculum
Light College Curriculum

First Year – Fall Semester
First-Year Writing
Int. Algebra
Prin. Of Fitness
Bio and Soc./Plant
Religion/Philosophy Elective

First Year – Spring Semester
First Aid Emergency Care
General Psychology
Public Speaking
Found ESPE/AT Career
Pre-Calculus
Humanities

Second Year – Fall
Anatomy
Chemistry or Physics
Language
Obs and Orthoses
Elective

Second Year – Spring
Care and Prevention
Language
Human Physiology
Electives
Non-Western

Third Year – Fall
Ortho and Assessment I
AT Clinical Skills I
Ther. Modalities
Health Psychology

Third Year – Spring
Kinesiology
Ortho Assessment II
AT Clinical Skills II
Prescription and Cond.
Human Nutrition

Fourth Year – Fall
Ortho Rehab
AT Clinical Skills III
Ex. Phys.
Statistics for Psych.
Elective

Fourth Year – Spring
Lab Exp. In Ex. Phys.
General Medical Conditions
AT Clinical Skills IV
Research Methods

May/Summer
Biomechanics
Advanced Therapies
Ther. Interventions
Advanced Topics in AT
Athletic Training Adm.

Fifth Year – Fall
Adv. Clinical Skills I
Thesis

Fifth Year – Spring
Adv. Clinical Skills II
Thesis
Capstone
Poseidon College Curriculum 2014-2015 Year

**Summer I**
Athletic Training Learning Community
Activity Injury Management and Terminology
Introduction to Research and Statistics
Kinesiology and Biomechanics
Functional Anatomy

**First Year**
Professional Development I: Professional Communication
Evaluation and Management: Lower Extremity and Lumbar Spine
Foundations of Neuromuscular Function
Clinical Applications of Movement Analysis
Evaluation and Management: Emergent Conditions
Conditioning and Rehabilitation I
Career Development
Beginning Clinical in Athletic Training
Professional Development II: Screening, Diagnosis, and Treatment
Evaluation and Management: Upper Extremity, Trunk, and Head
Therapeutic Modalities
Research Concepts and Proposal Development
Conditioning and Rehabilitation II
Biopsychosocial Issues and Interventions
Healthcare Information Technology
Intermediate Clinical in Athletic Training I

**Summer II**
Athletic Training and Sports Medicine Practicum

**Second Year**
Professional Development III: Elective
Evaluation and Management: General Medicine
Leadership and Administration of Athletic Training
Diagnostic and Orthopedic Applications
Manual and Mechanical Interventions
Nutritional and Pharmacological Interventions
Master’s Thesis in Athletic Training (1) Or ATR 7980 Capstone Project in Athletic Training
Intermediate Clinical in Athletic Training II
Advanced Study and Techniques & Advanced Clinical in Athletic Training
Healthcare Entrepreneurship and Innovation
Conditioning and Rehabilitation III
Continuing Enrollment
Poseidon College Curriculum 2016 and After

**Summer I**
Athletic Training Learning Community
Activity Injury Management and Terminology
Introduction to Research and Statistics
Kinesiology and Biomechanics & Functional Anatomy

**First Year**
Professional Development I: Professional Communication
Evaluation and Management: Lower Extremity and Lumbar Spine
Foundations of Neuromuscular Function
Clinical Applications of Movement Analysis
Evaluation and Management: Emergent Conditions
Conditioning and Rehabilitation I
Career Development
Beginning Clinical in Athletic Training
Professional Development II: Screening, Diagnosis, and Treatment
Evaluation and Management: Upper Extremity, Trunk, and Head
Therapeutic Modalities
Research Concepts and Proposal Development
Conditioning and Rehabilitation II
Biopsychosocial Issues and Interventions
Healthcare Information Technology
Intermediate Clinical in Athletic Training I

**Summer II**
Clinical Reasoning and Decision Making
Pre-Season Clinical in Athletic Training
Athletic Training and Sports Medicine Practicum (1) or ATR 6777 Topics in Athletic Training (1)-Electives

**Year Two**
Professional Development III: Elective
Evaluation and Management: General Medicine
Leadership and Administration of Athletic Training
Diagnostic and Orthopedic Applications
Manual and Mechanical Interventions
Nutritional and Pharmacological Interventions
Master’s Thesis in Athletic Training (1) Or ATR 7980 Capstone Project in Athletic Training
Intermediate Clinical in Athletic Training II
Advanced Study and Techniques & Advanced Clinical in Athletic Training
Healthcare Entrepreneurship and Innovation
Conditioning and Rehabilitation III
Redwood State University Curriculum

**Summer I**
Intro to Graduate AT
Ortho Assess – Lower Ext.
Psychology of Sport, Injury & Rehabilitation
Orthopedic Taping and Bracing

**First Year – Fall**
Graduate Practicum I
Ortho Assess. – Upper Ext.
Basic Modalities
Research Methods I

**First Year – Spring**
Graduate Practicum II
Advanced Modalities
Basic Rehabilitation
Research Methods II

**Second Year – Fall**
Graduate Practicum III
Adv. Rehabilitation
General Medical AT
Research Methods III

**Second Year – Spring**
Graduate Practicum IV
Management
Adv. Diag. Imaging AT
BOC Preparation
Critical Thinking
Rocky River University Curriculum

First Year – Fall
Introduction to Biology
Strat. In Rehetoric & Research
Modern Foreign Language
Principles of Chemistry I
Intro to Interprof. Healthcare
Univ 101: Enhncng 1st Year Succ

First Year – Spring
Pre-Calculus
Theological Foundations
Modern Foreign Language
Principles of Chemistry II
Historical Intro to Philosophy
Intro to Athletic Training

Second Year – Fall
Human Physiology
General Psychology
General Physics I
Ethics
Health Care System & Health Promotion
AT Student Development I
Second Year – Spring
Upper Division Psychology
Human Anatomy
General Physics II
Literature
Applied Decision-Making in IP Practice

Third Year – Fall
Theology Elective
Fine Arts
Introduction to Statistics
Elective
Elective
History

Third Year – Spring
Integrated IP Practicum Experience

Fourth Year – Summer, Professional Phase
Gross Anatomy
Principles of Athletic Training
Fourth Year – Fall
Musculoskeletal Assessment and Management I
Psychology of Sport and Injury
Therapeutic Modalities
Athletic Training Kineiology

Fourth Year – Spring
Musculoskeletal Assessment and Management II
Rehabilitation in Athletic Training I
Bioenergetics of Athletic Performance
Medical Conditions in Athletic Training
AT Clinical Practicum II

Fifth Year – Summer
AT Field Experience

Fifth Year – Fall
Rehabilitation in Athletic Training II
Research in Athletic Training
Lab Studies and Imaging
Athletic Training Administration
AT Clinical Practicum III

Fifth Year – Spring
Enhancing Athletic Performance
Seminar in Athletic Training
AT Capstone Project
AT Clinical Practicum IV
St. Stella University Curriculum

**First Year – Summer**
- Prev and Care of Athl Injuries
- Prev and Care of Athl Injuries Lab
- Clinical Education I

**First Year – Fall**
- Clinical Education II
- Clin Exam and Diagnosis – LE
- Clin Exam and Diagnosis Lab – LE
- Therapeutic Modalities
- Therapeutic Modalities Lab
- Reading Research

**First Year – Spring**
- Clinical Education III
- Organization and Admin in Athl Tr
- Clin Exam and Diagnosis – UE
- Clin Exam and Diagnosis Lab – UE
- Seminar I

**Second Year – Summer**
- Clinical Education IV
- Nutrition in Sports and Exercise
- Theory of Kinesiology (Stats)

**Second Year – Fall**
- Clinical Education V
- General Med Cond and Ther Med
- Physical Rehabilitation
- Physical Rehabilitation Lab
- Professional Prep and Issue Athl Tr
- Directed Studies 1

**Second Year – Spring**
- Clinical Education VI
- Phys of Strength and Cond
- Directed Studies
West Grand University Curriculum

**First Year – Summer**
Musculoskeletal Anatomy and Human Movement
General Medical Conditions and Terminology
Foundations of AT

**First Year – Fall**
Assessment & Mgmt, lower extremity & lumbar
A&M Lab 1
Clinical Education I
Sport & Exercise Perf.

**First Year – Spring**
Assessment & Mgmt, upper extremity & cervical
A&M Lab 2
Modalities
Modalities Lab
Evidence-Based Practice
Clinical Education II

**Second Year – Fall**
Research Methodology & Practicum
Psycho-social aspects of AT
Clinical Education III
Elective

**Second Year – Spring**
Current Issues and Management
Clinical Education IV