Reflective Practice in a Coach Education Practicum

Clayton Roth Kuklick
University of Southern Mississippi

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ABSTRACT

REFLECTIVE PRACTICE IN A COACH EDUCATION PRACTICUM

by Clayton Roth Kuklick

August 2014

Researchers have explored how practicing sport coaches learn through reflection (Gilbert & Trudel, 2001); however, there is a paucity of research that explains how and why higher education coach preparation students learn through reflection. The purpose of the current study was to understand how and why 21 coaching students enrolled in a practicum course at a southeastern United States institution engage in reflective practice. This research was conducted using a one group pretest posttest mix methods research design and draws upon Schön’s (1983, 1987) work on reflective practice, which underpinned a set of online structured reflective journaling prompts used as an intervention during the students’ practicum course. Each week, for 12 weeks of the practicum course, students were asked to respond to a theoretically informed prompt.

Quantitative data were collected via the Self-Reflection and Insight scale (SRIS-SRE; engagement in self-reflection, SRIS-SRN; need for self-reflection, SRIS-IN; insight) and a levels of reflection rubric to assess students’ intrapersonal knowledge. Qualitative data was collected via the students’ weekly responses to the prompts and a set of post practicum reflection responses. To address the quantitative component, a one-way repeated measures multivariate analysis of variance (MANOVA) was conducted to examine the influence of time (i.e., pretest and posttest) on SRIS-SRE, SRIS-SRN, SRIS-IN, and levels of reflection. The results revealed that time did not have a significant influence on SRIS-SRE ($p = .09$), SRIS-SRN ($p = .96$), and SRIS-IN ($p = .95$). However,
time did have a significant influence on levels of reflection ($p < .01$). These results suggest that the use of online structured reflective journaling within the practicum course had a positive influence on one variable of intrapersonal knowledge.

The qualitative findings resulted in 15 themes related to students’ role frames (e.g., creating a positive environment, performing in a dominating role), students’ self-identified weaknesses (e.g., weaknesses in role frame, weaknesses perceived by others), students’ dilemma identification (e.g., athletes’ underperformance, practicum coach’s underperformance), and students’ responses to dilemmas (e.g., enforcing a dominating role, developing a positive environment, generated strategies). These qualitative findings described what and to what extent students’ reflect in the practicum course.

The findings from both the quantitative and qualitative components provide a theoretically informed explanation of how coaching students learn through reflective journal prompting. Additionally, the findings also provide evidence for the efficacy of a theoretically informed reflective practice course on student learning in the higher education setting. These findings are discussed in relation to existing research on reflective practice, student learning in higher education, intrapersonal knowledge development, and the use of technology. Furthermore, implications for future research and coach educators are offered by considering the prompts influence on the students and the use of technology to facilitate learning in coach education.
REFLECTIVE PRACTICE IN A COACH EDUCATION PRACTICUM

by

Clayton Roth Kuklick

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Submitted to the Graduate School
of The University of Southern Mississippi
in Partial Fulfillment of the Requirements
for the Degree of Doctor of Philosophy

Approved:

Dr. Brian Garity
Committee Chair

Dr. Melissa Thompson

Dr. Richard Mohn

Dr. Trent Gould

Dr. Maureen Ryan
Dean of the Graduate School

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CHAPTER I
INTRODUCTION

*Education is the kindling of a flame, not the filling of a vessel.* - Socrates

Coach education researchers have used a multitude of learning theories from both cognitivist and constructivist perspectives to explain how and why coaches learn (Gilbert & Trudel, 2004a). Despite the breadth of learning theories used in these studies, researchers have generally agreed upon the importance of experience, reflection, or social interactions to facilitate learning. Based on these findings, researchers have provided theoretically grounded suggestions for coach education curriculums on how to construct meaningful learning experiences. Yet, coaching research has failed to provide a theoretical explanation of how and why learning occurs within higher education coach preparation curricula. Consequently, limited research has provided evidence for the efficacy of a theoretically informed curriculum on coach learning (Knowles, Gilbourne, Borrie, & Nevill, 2001). The gap in literature in explaining how college students learn to coach has likely been caused by research exclusively studying experienced, practicing coaches. Nonetheless, a theoretical explanation of how and why coaching education students learn would provide coach educators with ways to enhance coach learning (Cushion & Nelson, 2013; Trudel, Culver, & Werthner, 2013).

From a cognitivist theoretical perspective, mental models of the coaching process have been used to conceptualize how coaches acquire and utilize declarative (i.e., explicit knowledge of sport subject matter and/or pedagogical content) and procedural coaching knowledge (i.e., implicit knowledge in act of doing; Abraham, Collins, & Martindale, 2006; Côté, Salmela, Trudel, Baria, & Russel, 1995; Nash & Collins, 2006). By studying
expert coaches, mental models of the coaching process have purportedly been able to identify what to teach (i.e., sport specific knowledge, pedagogical knowledge) and how to facilitate the construction of coaching knowledge (Abraham et al., 2006; Côté et al., 1995). However, researchers from the cognitivist perspective suggest that coaches’ procedural knowledge is constructed through their coaching experiences and personal reflection (Abraham & Collins, 1998; Abraham et al., 2006; Saury & Durand, 1998).

Because learning through experience and reflection are not components of how cognitivist theorist typically explain and view learning, coach researchers have focused much attention on using learning theories that strictly view learning as being idiosyncratically situated in the coach’s experiences (Gilbert & Trudel, 2001).

Learning theories from a constructivist perspective have been used to address coach learning by examining how coaches actively engage in meaningful experiences, where knowledge is built upon what is already known (Cushion et al., 2010). This type of learning, which has often been identified as the most influential source of coach learning (Gould, Krane, Giannini, & Hodge, 1990), is often labeled as experiential learning.

Although Moon’s (1999, 2004) generic view of learning (Werthner & Trudel, 2006), Billett’s (2001, 2004, 2006) workplace learning theory (Rynne, Mallett, & Tinning, 2006; Rynne, Mallett, & Tinning, 2010), Bronfenbrenner’s (1979, 1999) ecological systems theory (Côté, 2006; Gilbert, Côté, & Mallett, 2006), Jarvis’ (2006, 2009) human learning theory (Callary, Werthner, & Trudel, 2011), Mezirow’s (1990, 1991, 1997b, 2000) transformative learning theory (Sullivan, 2009), and Kolb’s (1984) experiential learning theory (Irwin, Hanton, & Kerwin, 2004) have all been used as theoretical frameworks to examine coach education and learning, the most attention has been given to community
Community of practice (CoP; Lave & Wenger, 1991; Wenger, 1998) and Schön’s (1983, 1987) theory of reflective practice both explain learning as being entrenched in activity and context. CoP has been defined as “Groups of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interaction on an ongoing basis” (Wenger, McDermott, & Snyder, 2002, p. 4). Knowledge is therefore said to be constructed through a series of problem sets or dilemmas. This idea, that learning occurs by making meaning from encountering problems during experience, is typical of constructivist learning theories. However, Schön’s (1983, 1987) theory of reflective practice seems to go beyond the other constructivist perspectives by further explaining learning through an idiosyncratic cycle of reflection within problem sets. The theory of reflective practice postulates that individuals build upon domain specific knowledge by actively generating strategies to be used to overcome idiosyncratic problems encountered in professional activity (Schön, 1983, 1987).

Schön’s (1983, 1987) concepts of reflection on encountered problem sets provides a framework to explain meaningful knowledge constructions that are idiosyncratic to each coach despite the multitude of sporting contexts in which coaches may partake. For this reason, Schön’s (1983, 1987) theory of reflective practice has been suggested as being the best fit to explain how coaches learn (Gilbert & Trudel, 1999). Researchers have provided evidence that coaches learn through reflection in practice (Gilbert & Trudel, 2001; Gilbert & Trudel, 2005). Conversely, researchers have also suggested that...
not all coaches may reflect or know how to reflect effectively thereby inhibiting their ability to develop knowledge through experience (Gilbert & Trudel, 2001). Therefore, advancing the ability to reflect through coach education would provide greater opportunities for learning in professional practice (Schön, 1983). Schön (1983, 1987) himself further supports the notion that educating a reflective practitioner (i.e., sport coach) entails consistent nurturing, which suggests that reflective practice is something that needs to be implemented throughout an educational curriculum to enhance professional practice over time. The National Association for Sport and Physical Education (NASPE) Standards for Quality Coaching (i.e., skills and knowledge that a sports coach should possess) support the significance of reflection and states that it is a skill that a coach should retain (NASPE, 2006). It would appear, then, that NASPE accredited curricula incorporate some degree of reflective practice training into their curriculum.

In spite of the importance of reflection to enhance coach learning, it is surprising that a paucity of research exists on how and why coaching students in higher education curricula learn to reflect (Knowles et al., 2001). Despite the assumption that coach education curriculums engage students in reflective practice training, research has revealed that reflective practice in coach education curricula are often non-existent (Knowles, Borrie, & Telfer, 2005). Most recently, coach education stakeholders have otherwise suggested a need for educators to implement a theoretically grounded reflective practice framework in their curriculum (Cushion & Nelson, 2013). While some educators have made an effort to underpin their curriculum with reflective practice (Nelson & Cushion, 2006), researchers have failed to theoretically explore how and why learning
occurs in these curricula. Accordingly, there is limited research that has provided empirical evidence for the efficacy of a coach education reflective practice curriculum on coach learning (Knowles et al., 2001). Knowles et al. (2001) have been able to provide some evidence to support the growth of reflective skills in eight coach education students. Yet, coach educators have continued to call for additional evidence on the effect of a theoretically grounded reflective practice curriculum in order to better explain how and why coaches learn (Cushion & Nelson, 2013). As coaching majors in higher education continue to grow around the world (Campbell, 1993), there is great importance to better understand how to develop coaches’ reflective practice in this educational setting.

Research that has examined the development of reflective practice in higher education, such as that in teacher education, has advocated reflective journaling as the most influential approach for developing reflective skills (Bain, Mills, Ballantyne, & Packer, 2002; Pedro, 2005; Risko, Roskos, & Vukelich, 2002). Recently, in conjunction with the technological upsurge in higher education, online reflective journaling has garnered attention from educators because of the instantaneous opportunity for students to express thoughts and ideas (Chretien, Goldman, & Faselis, 2008; Stiler & Philleo, 2003). The online journaling approach has also shown to yield greater gains in student learning and understanding of professional practice when compared to more traditional journaling techniques (Gleaves, Walker, & Grey, 2008). Because reflective practice has been suggested as being a skill that cannot be taught through a formal direct instructional approach (Baird, Fensham, & Gunstone, 1991; Ross, 1989), educators have explored the use of journaling prompts to elicit positive gains in reflection (Bain et al., 2002; Clark, 1994; Cohen-Sayag & Fischl, 2012). Although there is a paucity of research exploring
the efficacy of reflective journaling in coaching students (Knowles et al., 2001), its use could be a viable option to develop coaches’ intrapersonal knowledge in a higher education setting (Côté & Gilbert, 2009).

Intrapersonal coaching knowledge has been suggested to be a crucial component for effective coaching and has been defined as the “understanding of oneself and the ability for introspection and self-reflection” (Côté & Gilbert, 2009, p. 311). Coach researchers have proposed the Self-Reflection and Insight Scale as a potentially valid and reliable scale for assessing a coach’s intrapersonal knowledge (Gilbert, Dubina, & Emmett, 2012). Self-reflection and insight are two essential metacognitive factors in the self-regulation processes that underpin behavioral change (Grant, Franklin, & Langford, 2002). These metacognitive factors would be influential for coaches in experimenting with self-generated strategies in order to develop more effective coaching practices (i.e., behaviors) over a career. In addition to the Self-Reflection and Insight Scale, reflection rubrics have been used to measure practitioners’ application of intrapersonal skills. For example, Powell’s (1989) reflection rubric has been used on nursing students’ journals to determine the degree in which students learn by reflecting on dilemmas encountered during professional practice (Richardson & Maltby, 1995). Despite the attention the Self-Reflection and Insight Scale and Powell’s (1989) levels of reflection rubric has received by researchers in other fields to study intrapersonal knowledge (Chow, Lam, Leung, Wong, & Chan, 2011; Richardson & Maltby, 1995), there is limited use of these forms of assessment on sport coaches (Knowles et al., 2001). Demonstrating the effect of reflective practice’s (Schön 1983, 1987) theoretical concepts used to underpin reflective
journaling on intrapersonal coaching knowledge would provide a theoretically informed explanation of how coaches learn in a higher education setting.

Statement of the Problem

There exists a gap in the literature on how college students majoring in coach education develop reflective practice. Although theoretically informed research has examined how practicing coaches learn, little research exists on the efficacy of a theoretically informed curriculum in a formal collegiate setting. Additionally, there is limited research on the essential skill of reflective practice within this setting. A theoretically informed, effective reflective practice curriculum holds great promise to coach educators as a way of understanding how and why coaches learn to coach. Although minimal research has been conducted using journaling to enhance reflective skills in coach education majors, the use of technology for inducing reflective practice during a coach education practicum course has not been explored. One way to understand the impact of a formal education program would be to holistically examine the use of theoretically grounded online structured reflective journaling in facilitating college students’ reflective practice. The theoretical framework guiding this study was drawn from Schön’s (1983, 1987) work on reflective practice. The purpose of this study was to understand how coach education practicum students engage in reflective practice. Therefore, this study answers the following research questions:

1. What is the effect of online structured reflective journaling on coach education students’ reported self-reflection and insight scores from pretest to posttest (Grant et al., 2002)?
2. What is the effect of online structured reflective journaling on coach education students’ level of reflection from pretest to posttest (Mezirow, 1981; Powell, 1989)?

3. What, and to what extent, did the students reflect within their online structured reflective journals?

4. What were the students’ perceptions of the online structured reflective journaling?

Hypotheses

$H_1$: Students who participate in online structured reflective journaling (i.e., intervention) will demonstrate a significant increase in reported self-reflection and insight scores measured by the Self-Reflection and Insight Scale (SRIS) from pretest to posttest.

$H_2$: Students who participate in online structured reflective journaling (i.e., intervention) will demonstrate a significant increase in level of reflection measured by a reflective writing rubric from pretest to posttest.

Significance of the Study

This study was the first to examine the use of a theoretically informed reflective practice curriculum on college students majoring in sport coaching education. Through the use of mixed methods, this study provides a holistic understanding of students learning experiences and the effect of online structured reflective journaling on students’ intrapersonal knowledge. Since there is a paucity of research in these areas, this study serves as a foundation to build upon our understanding of how to effectively structure reflective practice within higher education settings. Additionally, this study provides recommendations for researchers to assess the impact of a theoretically informed coach
education curriculum on coach learning. Finally, this research also provides coach educators at the university where this study takes place with findings pertaining to the effects of their practicum course, and a potentially new way to improve student learning.

Delimitations

This study was delimited to:

- Approximately 30 undergraduate students, majoring in sport coaching education, of junior or senior level standing.
- A purposive sample of students from a large southeastern university, who are enrolled in a practicum course during the spring 2014 semester.
- The use of the Self-Reflection and Insight Scale (SRIS) and Powell’s (1989) levels of reflection rubric to measure intrapersonal knowledge.
- Administration of SRIS and the use of Powell’s (1989) levels of reflection rubric for data collection that occurred during separate pretest and posttest sessions.
- A period of five months.
- Sport coaching education students who are enrolled in a practicum class.

Limitations

This study was limited to:

- The representativeness of the sample, which does not allow the results of this study to be generalized beyond sports coaching education students at the university where this study took place.
• The conditions that occurred during the interval of time in which the study took place, which may not have induced optimal acquisition of intrapersonal knowledge.

• The effects of the intervention, which may have been influenced by many variables such as gender, age, sport contexts (e.g., baseball, football, lacrosse, etc.), sport level (e.g., youth, middle school, high school, collegiate, professional), previous practicum experiences, years of previous coaching experience, years of playing experience in the sport of the coaching practicum experience, and highest level of playing experience (e.g., youth, middle school, high school, collegiate, professional).

• The sample size which may have posed a threat to committing a type II error if medium or small effect sizes (i.e., medium; partial eta$^2$, .0588; or small; partial eta$^2$, .0099) were revealed (Cohen, 1988).

• The data collected from this SRIS, which is a self-report scale measuring intrapersonal coaching knowledge. There is a risk here that the students did not accurately self-report their level of self-reflection and insight.

• The lack of random selection and assignment, which posed a threat to internal and external validity (i.e., interaction effects of selection bias). The lack of these experimental components limits the inferences regarding the cause and effect relationships (Campbell, Stanley, & Gage, 1963).
Definition of Terms

The following terms are commonly used throughout coaching research. The definitions of these terms are presented here to provide clarity for the reader and to acknowledge how these terms are used throughout this research.

1. Epistemology is “the theory of knowledge that is embedded in the theoretical perspective...” (Crotty, 1998, p. 3).

2. Learning theory is the conceptualized framework that explains the processing, acquisition, and retention of knowledge (Ertmer & Newby, 1993).

3. Learning is the acquisition of new knowledge, behaviors, skills, values, advancement in expertise, or the process of building upon what is already known (Schacter, Gilbert, & Wegner, 2009, 2011).

4. Coach development is a “chain of developmental outcomes and activities that occur in response to personal and contextual requirements over a period of time” (Côté, 2006, p. 218).

5. Coach education is any opportunity for coach learning to occur (i.e., institutionalized education, clinics, workshops, seminars, experience, mentors) (Cushion, Armour, & Jones, 2003).

6. Curriculum is any planned educational program that presents instructional content, materials, or resources (Kelly, 2009).

7. Expertise is the structure of hierarchical declarative and procedural coaching knowledge within a specific domain, which is developed over time (Ericsson & Smith, 1991; Glaser & Chi, 1988).
8. Declarative knowledge is explicit knowledge of sport subject matter and/or pedagogical content (Anderson, 1982).

9. Procedural knowledge is the implicit or tacit knowledge utilized in the act of doing (Anderson, 1982).

10. Acquisition of knowledge is the advancement in declarative and procedural knowledge, and therefore enhances expertise (Anderson, 1982).

11. Professional knowledge is the integration of declarative and procedural knowledge (Côté & Gilbert, 2009).

12. Interpersonal knowledge is a coach’s knowledge in understanding interactions with others and the ability to network with others (Côté & Gilbert, 2009).

13. Intrapersonal knowledge is a coach’s “understanding of oneself and the ability for introspection and self-reflection” (Côté & Gilbert, 2009, p. 311).

14. Coach effectiveness is “The application of integrated professional, interpersonal, and intrapersonal knowledge to improve athletes’ competence, confidence, connection, and character in specific coaching context” (Côté & Gilbert, 2009, p. 316).
CHAPTER II

REVIEW OF LITERATURE

In this chapter, I explore the large body of research on learning theories, coach learning, and coach education. Since there is a paucity of literature exploring the use of theoretically informed coach education curriculums, particularly in higher education, a bulk of this review of literature examines coach learning. By reviewing this literature, I was able to gain a better understanding for what theories have been used to guide research. From this insight, I was then able to make a decision regarding the applicability of existing theories to inform coaching education in a higher education setting. In the following sections, I first highlight the main concepts of some of the more recent learning theories from a cognitivist and constructivist perspective. It should be noted that the behaviorist perspective will not be reviewed because of its lack of recent attention within coach learning and education research. Subsequently, I present some of the coach learning and education research that has explored the utility of each learning theory. Upon making a decision on the most viable learning theory to explain how coaching students learn in higher education, I then conclude this chapter with an examination of literature pertaining to reflective journaling, technology based journaling, and intrapersonal knowledge assessments. The research presented in this chapter was collected from numerous databases such as SPORTDiscus, PsycINFO, and ERIC.

Cognitivism

In this section, I begin with a brief overview of the cognitivist epistemology in the context of the frameworks and mental models that explain how coaches acquire knowledge and expertise. I then review the coaching literature that has used the
cognitivist perspective to explain how coaches acquire knowledge. Beginning in the 1950s, researchers examining learning began changing their views on how individuals acquire knowledge from a behaviorist perspective to a cognitivist perspective. Researchers began examining the internal mental processes in order to offer a more valid explanation of how humans acquire knowledge (Goldstein, 2011). A cognitivist perspective views learning from an information processing approach where knowledge is acquired, organized, stored, and retrieved within the internal mental processes of the mind (Ertmer & Newby, 1993; Goldstein, 2011; Yilmaz, 2011).

**Information Processing**

The information processing epistemology focuses on the internal mental processes of how individuals think, problem solve, and make decisions. These internal mental processes require the retrieval of information that is stored and organized in schemas. Schemas are the organized patterns of categorized knowledge within the mind. Well-constructed schemas yield automatic retrieval of knowledge, while under-developed schemas result in a slower rate of information processing during domain specific thinking, problem solving, and decision making tasks. A schema is developed when new information is processed and then constructed to be stored for latter retrieval. A computer metaphor is often used to explain how schema is constructed in the mind (Goldstein, 2011).

Similar to how a computer processes input, information is absorbed into the mind, filtered for relevancy, and then stored into the short term, working, or long term memory (Goldstein, 2011). Less relevant information is briefly stored into the short term memory where it quickly dissipates, resulting in an under-developed construction of schema.
However, information that is filtered as meaningful is stored in the working memory. Here, schema is constructed in the mind, only to be then stored in the long term memory for latter retrieval (Baddeley & Hitch, 1974; Goldstein, 2011; Plass & Morendo, 2010). However, the construction of schema in the working memory is often hindered if the individual experiences cognitive overload.

Cognitive overload occurs when an individual experiences the processing and filtering of large amounts of new information during domain specific thinking, problem solving, or decision making. Because the mind is experiencing an overload of information, the working memory has a limited ability to construct a schema at this time. In this situation, the individual must engage in similar domain specific thinking, problem solving, or decision making tasks on multiple accounts in order for schema to be gradually organized to a point where knowledge is able to be retrieved automatically (Sweller, 1988). When individuals draw upon a set of well-structured domain specific schemas for thinking, problem solving, and decision making, they experience minimal levels of cognitive overload. In this situation, because knowledge from schemas is able to be automatically retrieved, the mind is able to process and filter information more efficiently. Accordingly, working memory is able to construct schema as new learning experiences occur (Rumelhart & Ortony, 1976; Sweller, 1988). An individual’s ability to think, solve problems, and make decisions represents how well their schemas are constructed in the mind and have been used to determine their level of expertise in a particular field (Ericsson & Smith, 1991). Anderson’s Theory of Knowledge Acquisition (Anderson, 1976) builds upon the explanation of how expert knowledge schemas are constructed and used to make decisions on solving problems.
Anderson’s Theory of Knowledge Acquisition.

Anderson’s Theory of Knowledge Acquisition is grounded by the Adaptive Character of Thought (ACT) production system, which he developed in 1976 (Anderson, 1976). Anderson (1976, 1982) suggests that individuals draw upon either declarative or procedural knowledge to make decisions about solving problems. Declarative knowledge is described as the accumulation of interpreted facts about a specific domain. Procedural knowledge consists of embedded declarative knowledge that yields an automatic retrieval of information. Anderson (1976, 1982) explains that in order to embed declarative knowledge into procedural knowledge, a gradual process of solving similar problems must occur. The process of embedding declarative knowledge into procedural knowledge is Anderson’s (1976, 1982) way of explaining how knowledge is constructed in the mind.

Anderson (1976, 1982) explains that when knowledge is unable to be automatically retrieved, an individual uses several forms of declarative knowledge to solve the domain specific problem. This use of several forms of declarative knowledge results in an overload in the working memory. In order to reduce the cognitive load on the working memory, knowledge schemas are constructed, which collapse across multiple forms of declarative knowledge into a single production. This single production network of schemas is where declarative knowledge is embedded into procedural knowledge. Only after this occurs, the individual is able to automatically retrieve domain specific knowledge used to solve problems, which also elicits limited cognitive overload in the mind. In order to better explain the process of embedding declarative knowledge into procedural knowledge, Anderson (1982) illustrates a set of procedures that individuals draw upon to solve simple math problems.
Anderson (1982) illustrates the multitude of steps necessary to complete a three digit addition problem to provide an example for how the declarative knowledge used to solve the problem gradually becomes embedded into procedural knowledge. For example, an individual would first add the numbers in the ones column to solve the three digit addition problem. In order to conduct this first task, there is a set of single steps where the individual would use their declarative knowledge to complete the task. However, after encountering this domain specific addition problem on multiple accounts the individual is able to recognize, for example, that three plus two equals five, without having to count two numbers from the number three. In this situation, declarative knowledge is collapsed across two procedures into one single production where five is automatically placed in the ones column. Anderson (1982) presented each of the steps of the three digit addition problem and demonstrated the gradual process of how an individual’s schema would collapse across multiple forms of declarative knowledge into a single form of procedural knowledge used to solve the problem. The aforementioned process serves as a framework to explain how knowledge is constructed through the process of embedding declarative knowledge into procedural knowledge.

Cognitivist Perspective: Coach Acquisition of Knowledge

In a theoretical essay, Abraham and Collins (1998) reviewed the literature to provide suggestions for coach education curricula on how to construct expert coaching knowledge (Abraham & Collins, 1998). Abraham and Collins (1998) used Anderson’s Theory of Knowledge Acquisition (1982) to explain how expert coaches construct and organize both their declarative and procedural knowledge used to solve coaching problems. In the gradual process of becoming an expert, the once novice coach uses
domain specific declarative knowledge in a set of thought-out steps to solve their coaching problems. Yet, upon accumulating countless hours in the field and having experienced multiple accounts of similar coaching problems, the declarative knowledge is then embedded into procedural knowledge for automatic retrieval. Although this would help explain for coach education curricula how to develop novice coaches into experts, the researchers suggest there may be an issue in determining if embedding declarative knowledge into procedural knowledge actually occurs (Abraham & Collins, 1998).

A majority of research assessing coaching expertise has used interviews and behavioral assessments, such as the Coach Behavioral Assessment System (CBAS; Smith, Smoll, & Hunt, 1977) and the Coach Analysis Instrument (CAI; Franks, Johnson, & Sinclair, 1988). Both the CBAS and CAI are framed around the assumption that expert coaching knowledge elicits a certain type of behavior. Accordingly, novice coaching behaviors should be different, which are prompted from a far less developed knowledge set. However, Abraham and Collins (1998) conclude that assessing knowledge constructions using behavioral assessments are too often inconsistent, as novice coaches have shown to display similar behaviors as expert coaches. Despite the issue associated with assessing coaching knowledge using the aforementioned behavioral assessments, the researchers still do believe that expert coaches draw upon a more well-constructed set of procedural knowledge to solve problems than novices. The researchers suggest that coach educators could improve coaching expertise by presenting well-developed content that constructs both declarative and procedural knowledge necessary for coaching. More specifically, an experiential learning situation out in the field within a coach education curriculum would provide opportunity for the declarative knowledge acquired in the
classroom to be embedded into procedural knowledge (Abraham & Collins, 1998).

Abraham and Collins identify the need for coach education to integrate both declarative knowledge construction and experiential learning situations to enhance the acquisition of coaching knowledge.

In other explorations of declarative and procedural knowledge, Saury and Durand (1998) sought to empirically examine how five male, expert sailing coaches from the French Federation of Sailing constructed their knowledge. Data were collected through onsite observations of the coaches’ verbalizations, the coaches’ recall of their actions, and through semi-structured interviews.

The results revealed that the sailing coaches were presented with a variety of problems during their training sessions. A few examples of the problems experienced by the sailing coaches included: fitting the training goals with an organized approach, sequencing the training tasks, and connecting the training tasks with the weather conditions (e.g., wind, sea). Other problems included the coaches being uncertain about their athletes’ motivation towards each training session. These problems required the coaches to draw upon both declarative and procedural knowledge to make decisions on the tactics used to overcome the encountered issues.

Although at times the coaches used their declarative knowledge to overcome the encountered problems, the researchers found that they relied more heavily on the automatic retrieval of procedural knowledge. Their procedural knowledge was found to be stored in contextualized directories and linked to their previous encounters with a similar domain specific problem. Accordingly, when problems were unfamiliar, the coaches drew upon multiple forms of declarative knowledge, which often times left them
unable to make decisions during the training session. The researchers suggest that in order for procedural knowledge to be automatically retrieved to make decisions about new problematic situations, the encountered problems must be of the same sporting context and contain the same level of athletes as in their previous experiences. The researchers suggest that although procedural knowledge is contextual, experiential learning and reflection are influential in developing procedural knowledge for automatic retrieval (Saury & Durand, 1998).

Other explorations of procedural knowledge can be found in Dorgo’s (2009) empirical examination of an expert strength and conditioning coach. The purpose of this case study was to determine the content of the procedural knowledge used for everyday strength and conditioning coaching practices. The coach being examined in this study had 12 years of elite collegiate head strength and conditioning coaching experience. Data were collected via observations, interviews, and documents used by the coach throughout his career.

The findings revealed that the elite coach in this study drew upon procedural knowledge from ten different content areas to perform everyday coaching practices. The researchers explain that procedural knowledge from six of the ten content areas were derived from the coach’s formal education which presented relative content in these areas. The disciplinary content presented in the coach’s formal education was then re-organized and practically oriented through experience, which enabled procedural knowledge to be constructed for automatic retrieval. However, four of the ten procedural knowledge content areas were not linked with the disciplinary content presented in the coach’s formal education. Examples of the procedural knowledge from these four content
areas to perform everyday coaching practices consisted: planning adjustments, supervision (i.e., technique analysis), pedagogical strategies (i.e., motivating athletes), and professional development (i.e., self-reflection). The procedural knowledge in these content areas was suggested to be derived and constructed exclusively through coaching experience. The findings from this study suggest that expert strength and conditioning coaches’ procedural knowledge is only partially grounded in the content presented in coach education curriculums. Further research needs to explore how expert procedural knowledge can be constructed in all of the content areas through a coach education curriculum (Dorgo, 2009).

Nash and Collins (2006) present a theoretical essay that examined the literature on expert coaches’ procedural knowledge. The purpose of this review of literature was to provide a clear path for coach educators on how to construct expert coaching knowledge. The researchers explain expertise is something that is developed over prolonged periods of time in domain specific contexts. Congruent with other expertise research, Nash and Collins (2006) suggest that expert coaches typically have the ability to retrieve knowledge used to make decisions on problems at a much faster rate than novices. Accordingly, novice coaches are more reliant on their declarative knowledge, which has not yet been embedded into procedural knowledge for automatic retrieval (Ericsson & Smith, 1991; Nash & Collins, 2006).

Derived from the aforementioned explorations of expert coaches’ automatic retrieval of procedural knowledge, Nash and Collins (2006) provide suggestions for coach educators by presenting a mental model for developing expertise in a coach education curriculum. The mental model organizes coaching knowledge in a hierarchical
structure where declarative knowledge is constructed into procedural knowledge. Their model emphasized the need for building a solid base of declarative knowledge (i.e., sport specific knowledge, tactics, etc.) in coach education curricula. However, in order to construct declarative knowledge into procedural knowledge so that it can be automatically retrieved, reflecting on experiences and mentoring were suggested to facilitate this process. Nash and Collins (2006) argue that many coach education curricula often produce coaches who have not constructed their procedural knowledge so that it can be drawn upon to make automatic decisions on problems encountered in the field. The researchers suggest that their mental model provides a framework to facilitate embedding declarative knowledge presented in the classroom, into procedural knowledge by providing pre-service field opportunities that require problem solving and reflection (Nash & Collins, 2006).

Another mental model was developed by Côté et al. (1995), which focused directly on the domain specific knowledge of expert gymnast coaches. In this empirical study, the researchers sought to identify how knowledge was organized in elite gymnast coaches. Côté et al. (1995) developed a mental model that explains how knowledge is used by elite gymnast coaches to develop optimal performance in their athletes. Data were collected via open-ended interviews with 17 expert gymnast coaches. Expert coaches were identified as possessing a minimum of ten years of elite gymnastics coaching experience.

The findings revealed that the coaches’ knowledge was organized into three central components consisting of competition, training, and organization. The competition component incorporated the coaches using knowledge to help their athletes
perform at optimal levels in competition. The training component included knowledge that was directed towards enhancing their athletes’ skill acquisition and performance during training. And finally, the organization component consisted of the coaches applying knowledge towards structuring tasks that create an optimal environment for their athletes to be successful. However, the results also revealed that peripheral components often influenced how the coaches used their knowledge in each of the central components.

The peripheral components consisted of the coaches’ personal characteristics, their athletes’ personal characteristics, and their athletes’ level of development. These peripheral components impacted the knowledge used in the central components. Accordingly, the peripheral components had either a positive or negative impact on the athletes’ performance, depending on how the knowledge used in the central components interacted with the peripheral. The central and peripheral components offer an explanation for how elite gymnastics coaches organize and use their knowledge. However, the results from this study can only suggest that this model of coaching knowledge would be same in other contexts. Yet, the researchers proposed that their mental model provides a framework that explains expert knowledge constructions and could be used in coach education curricula (Côté et al., 1995). However, more recent mental models have been developed to specifically suggest a path for coach education curricula to construct coaching knowledge in contexts other than gymnastics (Abraham et al., 2006).

In order to better inform coach education curricula on how to construct expert coaching knowledge, Abraham et al. (2006) first review the literature on information
processing, decision making, and expertise. The purpose of this review was to conceptualize a mental model that explains the organization of both declarative and procedural coaching knowledge. After conceptualizing the mental model, the researchers then empirically examined the knowledge constructions of 16 elite-level coaches of 13 different sports (i.e., athletics, canoeing, curling, cycling, equestrianism, soccer, hockey, judo, netball, ruby, shooting, swimming, and triathlon) in order to validate and provide support for their model. Data were collected from structured interviews.

Derived from the coaches’ responses during the structured interviews, the researchers were able to map the path of coaching knowledge as it is used by all coaches to make expert decisions. The findings revealed that expert coaching decisions made out in the field were originated from declarative knowledge concepts such as disciplinary knowledge, sport specific knowledge, and pedagogy. These concepts contributed to the decision making process on physical fitness training, tactics, communication, drills, and practice sessions. In these areas, the experts constructed procedural knowledge to make decisions. The researchers suggest there are pathways that link certain declarative knowledge concepts into certain procedural knowledge concepts. For example, disciplinary (i.e., exercise physiology) declarative knowledge was constructed into procedural knowledge in order to make decisions on physical fitness training. While sport specific declarative knowledge was a significant contributor to the construction of the procedural knowledge used to make decisions regarding tactics. The findings suggest that expert coaches’ declarative knowledge concepts are constructed into procedural knowledge in order to make decisions in specific areas. Abraham et al. (2006) further suggest that the diverse sporting contexts of participants used in this study provide
evidence for the validity of the mental model to be used in coach education curricula. This mental model is suggested to differ from other mental models because it explains the concepts and knowledge pathways for coach educators to enhance the construction of coaching knowledge in multiple sport contexts (Abraham et al., 2006).

Summary of Cognitivist Perspective

Research addressing coach learning from a cognitivist perspective has examined expert coaches to better understand how coaching knowledge is constructed in sport contexts. From these examinations, researchers have explained that coaching knowledge is constructed into either declarative or procedural knowledge, which determine the efficiency of information retrieval when making decisions in practice (Saury & Durand, 1998). Expert coaches draw upon the automatic retrieval of procedural knowledge in practice, which is used for making coaching decisions (Ericsson & Smith, 1991). Conversely, a coach who draws upon declarative knowledge for making decisions has a rather reduced rate of retrieval efficiency. Expert coaching knowledge is therefore said to be constructed when declarative knowledge is embedded into procedural knowledge when encountering similar dilemmas over multiple occurrences (Saury & Durand, 1998).

Researchers have generated mental models from these findings to illustrate concepts and the pathways necessary to construct expert coaching knowledge in coach education curricula (Abraham et al., 2006; Côté et al., 1995). In summary, mental models and related research from a cognitivist perspective have seemingly been able to identify for coach educators what to teach (i.e., sport specific knowledge, pedagogical knowledge) and how to facilitate the construction of expert coaching knowledge (i.e., experiential learning, mentoring, reflection; Abraham & Collins, 1998; Abraham et al., 2006; Saury &
Durand, 1998). However, empirical evidence for the construction of expert knowledge using the cognitivist perspective in coach education curricula is lacking (Abraham & Collins, 1998).

In a higher education setting, the use of mental models and the other cognitivist theories is not likely to be the best way to explain how coaches learn in coach education curricula. Although coach educators could underpin their curriculum by drawing upon the research that has provided the content to teach (i.e., sport specific content, tactics, technical) and how to construct procedural knowledge (i.e., experience), coach educators should not assume that knowledge construction simply occurs by presenting students with content and then subsequently requiring them to accumulate coaching experience. Research from the cognitivist perspective would further agree that coaching knowledge is not automatically constructed in experience and must first be filtered as meaningful (Abraham & Collins, 1998). Despite the evidence that researchers have provided for meaning being created when coaches encounter problems in practice (Saury & Durand, 1998), we do not know how or why declarative knowledge gradually becomes embedded into procedural knowledge. There remains a missing component in explaining how and why information is filtered as meaningful, and then subsequently constructed into new knowledge. Coach education curricula could therefore be better informed on how to enhance knowledge construction through a view that better explains how knowledge is created from meaningful and idiosyncratic experiences within each learner.

Constructivism

The constructivism epistemology was initiated by the work of John Dewey and Jean Piaget (Dewey, 1938; Dewey, 1966; Fosnot, 2005; Ultanir, 2012). The basis of the
Constructivism view is to explain learning as being constructed by connecting the learner’s foundation of knowledge (i.e., previous experiences, ideas, and knowledge) with their idiosyncratic perceptions and interpretations of new experiences, ideas, and knowledge (Fosnot, 2005; Ultanir, 2012). Constructivist perspectives to learning have been used in educational settings to actively engage learners in creating meaning through active, experiential, or social processes where new concepts are joined with existing knowledge (Cannella & Reiff, 1994; Naylor & Keogh, 1999).

Researchers have suggested that the use of constructivist learning theories within coach educational curricula would be a way for educators to engage students in meaningful learning experiences (Cushion & Nelson, 2013; Trudel et al., 2013). While a massive amount of literature exists on constructivism, the following sections will detail those learning theories most common within coach learning and education research. The main theoretical concepts of situated learning (Lave & Wenger, 1991) and community of practice (Wenger, 1998; Wenger et al., 2002), Billett’s (2001, 2004, 2006) workplace learning theory, Bronfenbrenner’s (1979, 1999) ecological systems theory, Jarvis’ (2006, 2009) human learning theory, Mezirow’s (1990, 1991, 1997b, 2000) transformative learning theory, Moon’s (1999, 2004) generic view of learning, Kolb’s (1984) experiential learning theory, and Schön’s (1983, 1987) theory of reflective practice will be discussed first within each section. I will then highlight some of the coach learning and education research that has explored or framed coach learning with the learning theory within each section. At the end of each of these sections, I discuss the viability of the learning theory to be used to explain how coaching majors learn in higher education.
Finally, I conclude this section with a summary of the constructivist perspective and my decision on the most viable way to frame coach learning for the purposes of this project.

Lave and Wenger’s (1991)

Situated Learning and Community of Practice (Wenger, 1998)

Because situated learning and community of practice (Lave & Wenger, 1991; Wenger, 1998; Wenger et al., 2002) were built upon each other, they will be explained together in this section. Subsequently, within the coaching literature section, they will be separated for a clearer organization.

Lave and Wenger (1991) originally developed the idea of situated learning to better understand knowledge acquisition and the social nature of learning in the context of apprenticeship and mentoring. Situated learning is the construction of knowledge that occurs within a social environment where knowledge is most often applied (Lave & Wenger, 1991). To explain situated learning, Lave and Wenger examined learning in five apprenticeships (e.g., midwives, tailors, quartermasters, butchers, and non-drinking alcoholics). An apprenticeship consists of a novice practitioner learning from participation with, and observation of, a master. Lave and Wenger use the term situated learning to define how a novice learns through participation in peripheral tasks (i.e., threading needles) while the master performs central tasks (i.e., sewing garments). Gradually, the novice’s knowledge progresses while working towards greater involvement in central tasks, thereby fulfilling the role of what Lave and Wenger call a full participant. In order to better understand social learning within apprenticeship relationships, situated learning needed further development, as the concept of community was undertheorized (Wenger, 1998).
Community of practice expands on the concepts of situated learning to better understand learning that occurs within a community of practitioners (Wenger, 1998). Wenger (1998) explains that the community’s influence on learning is dependent on three dimensions, which sustain the structure of a CoP. The first dimension, mutual engagement refers to the interaction and development of relationships with community members. Individual contributions and each community member’s specific knowledge within a situated context are said by Wenger to contribute to the mutual engagement of the community. The second dimension, joint enterprise, is the collective problem or issue that creates challenging situations within a specific domain or practice that is experienced among all community members. Finally, shared repertoire refers to the commonality of language, terms, values, equipment, etc., used among community members. Authentic learning experiences are dependent on a CoP’s functionality (e.g., low to high), which is linked to the interaction of the three dimensions. Situated learning and CoP both highlight the importance and structure of community within an authentic social learning environment (Lave & Wenger, 1991; Wenger, 1998).

Coaching Literature: Mentoring

Bloom, Durand-Bush, Schinke, and Salmela (1998) examined the protégé and mentoring experiences of 21 elite Canadian coaches. The participants in this empirical study were five field hockey, five ice hockey, six basketball, and five volleyball coaches, of expert level status. In this study, expert level status was considered as having at least ten years or 10,000 hours of coaching experience at the national or collegiate level and also recognized by the National Sport Organization. In order to be recognized by the National Sport Organization, the coach must have an outstanding win/loss record, while
also demonstrating the ability to produce elite athletes. Data were collected via open-ended and semi-structured interviews.

The researchers found that the coaches were at some time in their career mentored as both an athlete and coach. These experiences were deemed to be influential in each coach’s development. The coaches in this study suggested that their mentor provided valuable knowledge in a variety of different aspects of their sport. However, after spending many years in the field, these coaches then became mentors to their athletes and other coaches. From the findings of this study, the researchers suggest the need for coach educators to incorporate formalized structured mentorships into their curricula as a way to facilitate coach learning (Bloom et al., 1998).

In a review of literature, Bloom (2013) explored the research in the medical, business, education, and coaching fields to explain how formalized mentoring can produce positive learning outcomes. From these explorations, the researcher explains that there is limited research examining formalized mentoring in coaching compared to other fields. By drawing upon the research from other fields, coach educators have been able to gain a better understanding for the myriad of potential positive learning experiences that can be produced when formalized mentoring is implemented properly. Some of the potential positive learning experiences elicited by mentoring can produce improvements in self-confidence, managerial skills, and pedagogical skills. Although a few formalized mentoring programs have been developed and implemented into the coach education curriculum, there is still a need to explore the learning experiences induced through mentoring in these curricula (Bloom, 2013).
In a similar paper, which also explored formalized mentoring in variety of fields, Jones, Harris, and Miles (2009) reviewed the literature to provide a better understanding for how to structure formalized mentoring experiences in coach education curricula. In this theoretical paper, because a majority of the research on mentoring in coaching has been conducted on practicing coaches to explain how they learn; the researchers suggest there is a need to draw upon the research from nursing, education, and business. In these fields, researchers have provided far greater empirical explorations of formalized mentoring experiences. Some of the suggestions drawn from the research in these other fields that the researchers suggest should be applied to formalized mentoring in coach education curricula included setting goals in the mentoring experiences, creating challenges for both the mentor and the protégé, adding flexibility within the structure of the mentoring experience, and identifying the protégé’s needs. Although these suggestions offer a guide for coach educators, there may be some barriers that need to be considered before formalized mentoring is integrated into the coach education curriculum (Jones et al., 2009).

Cassidy and Rossi (2006) have explored the potential application of situated learning, mentoring, and apprenticeship into coach education curricula. In this theoretical paper, the researchers discussed some potential issues that could hinder the impact of apprenticeships within the coach education curriculum. The researchers explain that often times protégés acquire new coaching practices without critically reflecting on the potential impact of these practices. Despite the need for protégé’s to have an ability to critically reflect, more importantly, there resides a lack of quality mentors that are willing to engage in mentoring less experienced coaches. Yet, evidence still supports coach
mentoring as an influential source for enhancing coaching knowledge. Because of this evidence, Cassidy and Rossi (2006) suggest there is a need for formalized mentoring in coach education curricula. However, formalized mentoring in coach education curricula may be better served when both the mentor is willing to engage in this experience, and the protégé has the ability to reflect on their acquired knowledge (Cassidy & Rossi, 2006).

Coaching Literature: Communities of Practice (CoP)

Culver et al. (2009), used CoP as a framework (Wenger, 1998) to provide an empirical analysis of a sports director’s attempt to cultivate a CoP within a competitive baseball league of 15, 16, and 17 year-old athletes. The CoP, which consisted of a director, five coaches, and a league manager was developed with the purpose to engage the coaches in sharing knowledge amongst each other. The idea here was that sharing would serve as a way to enhance the coaches’ instruction and the development of their athletes. Data were collected via open-ended questioning interviews from the participants, which included the director, league manager, and five coaches. The findings were presented over three time periods. The first time period (four seasons) occurred when the director acted as a facilitator of the CoP. In the second time period (three seasons), the director (i.e., facilitator) relinquished his role and left the league. The third time period (one season) encompassed the phase when the data were collected in real time. The separated time periods enabled the researchers to capture the impact of the facilitator within the CoP.

The findings revealed the importance of strong facilitator leadership. Strong leadership was found to ensure a high functioning CoP, which produced coaches who
were willing to share knowledge amongst each other. The competitive nature of the league elicited an initial discomfort by the coaches to share ideas; however, the strong leadership of the facilitator was able to eventually produce coach learning through collaboration and sharing. Further evidence to support the need for strong leadership was demonstrated when the facilitator left the league. After the facilitator left, the collaboration disbanded, and the coaches went back to an individualistic approach where competition against one another was the main focus.

In order to inform coach education about how to enhance coach learning through the use of a facilitated CoP, the researchers discussed how to overcome the barriers of competitiveness to maintain joint enterprise (i.e., focus on developing athletes by advancing coach instruction through knowledge sharing). One suggestion obviously encompassed the necessity of having a facilitator with strong leadership capabilities. The researchers further suggest that a facilitated CoP could be a viable option to enhance coach learning; however, there is a need for further research to explore the viability of the framework in other contexts (Culver et al., 2009).

In similar research, Callary (2013) examined the perspectives of two figure skating coaches to provide a better understanding for how coaches learn within a CoP. Each of the two coaches in this empirical study worked with the same athlete but on different aspects of athletic performance, which was dependent on the coach’s area of expertise. Four open ended interview sessions were conducted with each of the two coaches. Data were coded and organized pertaining to the learning experiences that occurred as a result of their social interactions.
The findings revealed that the coaches were members of a CoP where they shared knowledge without assistance of a facilitator. This informal CoP contained the social coaching environment of the skating club where the coaches worked. However, the findings also showed that the coaches typically shared more frequently with coaches who belonged to a subgroup within the greater coaching community. The coaches spent more time sharing within this subgroup of coaches because they had felt they had a trusting relationship with these coaches. Despite the findings that demonstrate that coaches learn by belonging to an informal CoP (i.e., un-facilitated), Callary (2013) suggested that to engage coach learning in a coach education curriculum, a CoP would need to have a facilitator who is able to establish and maintain a trusting relationship amongst community members (Callary, 2013).

Culver’s (2004) empirical study used CoP as a framework to explore the learning experiences of seven alpine ski coaches. In one part of the study, the coaches participated in a series of meetings during their winter season. These facilitated meetings maintained a structure that promoted interaction amongst community members. In the second part of the study, the facilitator left the community. However, the coaches continued with their meetings with the intent to carry on with their collaborative learning experiences without the facilitator. Data were collected through interviews with the coaches, and observations of their interactions in the meetings that were conducted.

The findings revealed that during the facilitated CoP meetings, the coaches mostly engaged in storytelling where they shared various coaching issues that they were experiencing at the time. Through collaboration, the coaches acquired new knowledge and strategies to overcome their coaching issues, which they deemed as having a
meaningful and positive influence on their learning. However, in the second part of the study when the facilitator left the CoP, the meaningful learning experiences became far and few between. The findings from this research suggest that a facilitator may be needed in a coach education setting to sustain a high functioning CoP and, thus, to elicit meaningful learning experiences in all community members (Culver, 2004).

In summary, although research has supported the use of trained facilitators to cultivate a CoP (Culver et al., 2009), the use of CoP as a framework could be problematic in facilitating learning in a large number of students with varying sporting interests in the higher education coaching curriculum. One problem in using CoP in higher education would be that the program would need to contain coach educators, who act as trained CoP facilitators, with expertise and backgrounds that correspond with all of the students’ interests in order to sustain the three dimensions that structure CoP. In regard to situated learning (Lave & Wenger, 1991), one issue with explaining organic learning experiences within the context of apprenticeship in higher education is that some practicing coaches may not be willing to provide quality mentoring to coaching students (Cassidy & Rossi, 2006). Therefore, educators would then spend an unfeasible amount of time acting as mentors out in the field facilitating organic learning experiences. Furthermore, another issue is that research has not been able to explain how to structure the theoretical concepts of situated learning and CoP in the higher education coach preparation curriculum (Bloom, 2013; Lave & Wenger, 1991).


Workplace learning theory, theorized by Billett (2001, 2004, 2006), conceptualizes learning as the creation of knowledge through social participation in a
situated workplace environment. Although workplace learning theory (Billett, 2001, 2004, 2006) may initially be perceived as being a replicate of situated learning (Lave & Wenger, 1991) and community of practice (Wenger, 1998), differences exist due to Billett’s (2001, 2004, 2006) view of learning that distinguishes between the relationship of the autonomous individual (i.e., learner) and the social structure of the workplace. Social structure can be thought of as the norms or standards at the workplace that shape an individual’s behaviors, thought, and ideas. Billett (2001, 2004, 2006) uses the concepts of agency, relational interdependency, and affordances to conceptualize learning that occurs in the workplace.

The learning process in the workplace encompasses an individual constructing knowledge by engaging in meaningful learning experiences that are shaped by the social structure of the workplace environment. In order to better explain how meaningful learning experiences are shaped by the social structure, Billett (2001, 2004, 2006) first refers to agency as an individual’s willingness or intention to engage in learning. Relational interdependency is theorized as the mutual dependency between the individual’s agency and the social structure of the workplace environment. Billett (2001, 2004, 2006) also refers to affordances, which are described as any potential learning opportunities that an individual could engage in at the workplace. Billet (2001, 2004, 2006) theorized that the social structure of the workplace will determine both the individual’s agency and the individual’s affordances. In other words, individuals will freely engage in certain learning opportunities. However, their free will to engage in certain learning opportunities is influenced by the other individuals, the norms, standards, or values of the workplace environment (Billett, 2001, 2004, 2006). Within the realm of
coach learning, research has shown that coaches will either choose their learning experiences or participate in learning situations as they are influenced by other coaches (Armour & Jones, 2000).

Coaching Literature: Workplace Learning

Presented in a theoretical essay, Rynne et al. (2006) framed Billett’s (2001, 2004, 2006) workplace learning theory to explain how coaches learn in the workplace environment (Rynne et al., 2006). In another project, Rynne et al. (2010) then used the theorizing of Billett (2001, 2004, 2006) in an empirical study to capture the relationship between the social environment and the individual coach. The purpose of this work was to examine how potential learning situations may be viewed differently among coaches in a social workplace environment. In their study, Rynne et al. (2010) collected data through semi-structured interviews with six coaches of varying sports, levels, and backgrounds and six administrators of the State Institute of Sport (SIS), which was a facility that employed a group of high performance coaches.

The results showed that although affordances, such as the internet, sport scientists, strength and conditioning coaches, and mentor coaches were provided by the workplace to engage the coaches in learning, their agency was imperative for learning to actually occur. However, their willingness to engage in learning was too often impacted by the social structure in the workplace. For example, the coaches were willing to engage in learning opportunities only after it was already perceived as being a successful experience by another coach. Because some opportunities were never utilized or were not considered a meaningful learning experience by one coach, many affordances provided by the workplace were left unengaged. The results from this research suggest that the
coaches’ agencies ultimately determined the impact of the learning situation. However, the coaches’ agencies to engage in certain affordances were significantly impacted by the social structure of the workplace. The researchers suggest there is a need for coach educators and workplaces administrators to take more deliberate approaches in collectively engaging coaches in learning opportunities. Coach educators should consider the social environment when providing learning opportunities and could systematically engage coaches in these opportunities over different periods of time (Rynne et al., 2010).

With respect to its use in a higher education coaching curriculum, Workplace learning theory’s (Billett, 2001, 2004, 2006) theoretical concepts of agency and affordances could be problematic in explaining learning. Billet’s concepts were theorized around the idea of explaining how coaching professionals learn and it is unrealistic to think higher education coaching students’ willingness to learn, opportunities for learning, and the social environment are the same as workplace professionals. Additionally, the existing literature has failed to provide evidence or recommendations for how to underpin a higher education coaching curriculum using Billett’s theoretical concepts.

Bronfenbrenner’s (1979, 1999) Ecological Systems Theory

Bronfenbrenner’s (1979, 1999) ecological systems theory is conceptualized on the basis that individuals learn through the sequential binding of experiences that occur in a response to their involvement with their environment. According to Bronfenbrenner (1979, 1999), individuals interact with five different types of environments over a lifetime. Within each of the five environmental systems, contextual requirements (i.e., rules, norms, and roles) shape what the individual learns. A significant component of the ecological systems theory resides in the connections made between each environmental
system and the learner. The five environmental systems in which an individual interacts are referred to as the microsystem, mesosystem, exosystem, macrosystem, and chronosystem.

The environmental systems are layered away from the individual, as the impact on the learner is weakened. At the most immediate level of the individual, Bronfenbrenner (1979, 1999) refers to the microsystem as the environment that contains people with whom that the learner has regular interactions. Examples of people in this system would include family, school, and peers. At the next immediate level, the mesosystem is explained as the environment where people within the microsystem connect with each other (i.e., family connects with workplace). For example, what an individual learns from their family experiences is actively applied to their work and vice versa. The exosystem contains the environment that impacts the groups within the individual’s microsystem. In this system, the individual only experiences the effect of what has occurred to others. An example of this system would include a mother that has been dismissed from work and thus the family now lacks of financial security. The new lifestyle would induce a change in the children’s’ learning. The macrosystem has a lesser impact on learning and contains the belief system of the culture, nation, or social class in which the individual resides. The common belief system of the group in which the individual interacts, influences what and how the individual learns. Finally, the chronosystem consists of the environmental transitions that impact learning throughout an individual’s life. The environmental transitions that occur over time may include changes in age, the setting, behaviors, or physical characteristics in the learner. For example, an individual giving birth to a child is a life event that would transition the
learner into a new environment of learning experiences. Bronfenbrenner (1979, 1999) theorizes that individuals are both creators and products of their environment.

**Coaching Literature: Ecological Systems Theory**

Presented in a theoretical essay, Côté (2006) summarizes existing literature on how coaches learn throughout their career. The purpose of this exploration was to suggest a need for a framework that considers the various experiences that coaches may engage in both before becoming a coach and during their coaching career. Côté (2006) provides support for Bronfenbrenner’s (1979, 1999) ecological systems theory to be used as a way to frame how coaches learn from their social and environmental settings. The use of this framework could help educators gain a better understanding for what learning experiences occur in different environments at various time points throughout a coach’s career. However, in order to inform coach education about how to construct knowledge, there is need to empirically explore how and what coaches learn in these different contexts and environments (i.e., levels of ecological systems theory; Côté, 2006).

Gilbert et al. (2006) present an on-going project, which sought to empirically study how coaches develop knowledge over their career. Because coaches typically maintain various social and domain specific environments that gradually become more complex over their career (i.e., assistant coach to head coach), the researchers draw upon the ecological system theory (Bronfenbrenner, 1979, 1999) framework to guide their on-going project. Although the researchers in this manuscript do not deliver the results from the ongoing project, they do present the project design, methodology, and the results of a pilot study. The researchers created a structured interview guide to determine the learning experiences that coaches engage at various phases of their development. This interview
guide will be used in the longitudinal data collection process, which was first tested on five high school softball, four community college American football, and six Division I volleyball coaches.

The initial findings identified some key criteria that were influential in the coaches’ development. The criteria was organized into the coaches’ athletic profile and coaching profile. The athletic profile criteria consisted of: total number of hours invested as an athlete, the number of sports in which they competed, the number of years in sport competition, the percentage of their sport competition where they were a team captain, and the percentage of their sport competition as a starter. The coaching profile criteria consisted of: total number of annual hours spent in practice training, competition, administration, and coach education. Upon determining each of the coaches’ athletic and coaching profiles, the researchers then examined the differences between each of the sport types and coaching levels of the participants.

The examination of the coaches’ athletic profiles revealed that the coaches’ number of hours spent playing, number of sports played, and years of playing experience varied between each of the coaching levels (i.e., high school, community collect, division I). The high school coaches reported more hours as an athlete and more sports played, while the college coaches displayed that they were more specialized in their playing experience and years of playing in the sport that they coach. Differences in coaching profiles between the coaching levels and sport type were also noticeable. Differences were revealed in annual hours spent in training and practice, competition, administration, and coach education. For example, football coaches spent more time in administration (i.e., film study) than the volleyball coaches. Using the ecological systems theory
(Bronfenbrenner, 1979, 1999) framework, researchers can further form coaching profiles from varying sports and coaching levels, which would outline what knowledge coaches are mostly drawing upon. This method would inform coach educators on what to present in their curricula to fit coaches’ needs of different sports and levels of competition (Gilbert et al., 2006).

In summary, although the use of the ecological systems theory (Bronfenbrenner, 1979, 1999) as a framework shows promise for researchers to help inform coach education curricula, there is a lack of empirical evidence that has determined the athletic and coaching profiles across sports contexts and coaching levels. Therefore, coach education at this point cannot create curriculums to fit each sporting context or students’ athletic profiles. Additionally, the concepts of ecological systems theory are based on explaining learning over the long term and therefore the development of coaches over a career. This idea would not be conducive to explain learning in pre-service coaching students studying in higher education for the short term.


Peter Jarvis, a sociologist, theorized human learning as it occurs over a lifetime from a psychosocial perspective. Jarvis (2006) explains that learning is a lifelong process based on an individual’s perceptions that influence their behaviors, thoughts, and emotions. Jarvis (2006) states, “At the heart of all learning is not merely what is learned, but what the learner is becoming (i.e., learning) as a result of doing and thinking and feeling” (p. 6). Within human learning theory, Jarvis (2006, 2009) explains the concepts of disjuncture, biography, and primary and secondary socializations to better understand how individuals learn throughout their lifetimes.
Jarvis (2006, 2009) explains disjuncture as occurring when the individual experiences disharmony or conflict and has an inability to automatically cope with a situation. Disjuncture often occurs when an individual is presented with a potential new learning situation. However, for learning to occur, the individual must be willing to engage problem solving to resolve the conflict. The individual’s problem solving process is influenced by their biography. An individual’s biography is the compilation of previous learning experiences that makes up the individual’s knowledge, actions, emotions, and beliefs at any one time. As individuals develop and grow throughout their lifetime, they interact with a diverse range of people that influence their biography.

Jarvis (2006, 2009) also explains that learning occurs through interactions in either primary or secondary socializations. A primary socialization encompasses the interactions with others during early stages of development. Learning that occurs from primary socialization are a significant stage in shaping the individual’s biography. For example, a majority of what a child learns through primary socialization remains with them throughout their life. A less significant stage is described as, secondary socialization, which are the interactions with others who maintain certain roles in specific situations. Secondary socializations are small groups of people apart from primary socializations and are constantly changing throughout the individual’s life. Primary and secondary socialization concepts explain learning as a lifelong process, where the perception of any one situation, experience, or interaction is influenced by an individual’s biography.

Coaching Literature: Human Learning Theory

Using Jarvis’ (2009) human learning theory to frame coach learning, Callary et al. (2011) explored how five Canadian women coaches learned to coach. More specifically,
the researchers sought to explain the learning experiences that occurred from the coaches’ family (i.e., primary socialization), schooling (i.e., secondary socialization), and sport experiences (i.e., secondary socialization). The participants in this study were five women Canadian coaches between the ages of 42 to 51 years old with 17 to 30 years of coaching experience. Data were collected via semi-structured interviews on four separate occasions spanning three months.

The results revealed that the coaches’ most influential learning experiences were derived from primary socializations. The learning that occurred in these primary socializations (i.e., family) remained with the coaches throughout their career and also influenced what they learned from their secondary socialization (i.e., school and sport participation experiences). Furthermore, both primary and secondary socializations were found to have influenced the coaches’ choice to get into coaching and also their current coaching practices. Their coaching philosophy, reflective skills, managerial skills, and self-confidence were also found to be influenced by their primary and secondary socializations.

The researchers suggest coach education should consider that coaches have different primary socializations from which they acquire their coaching practices. The researchers explain that reflection on a coach’s primary and secondary socializations may facilitate their awareness of how these socializations have impacted their coaching practices. Coach educators can help coaches reflect on their family, other coaches, and playing experiences to become aware of how their socializations have impacted their coaching practices and further identify what they value in others which could then be included in their own approach (Callary et al., 2011).
In summary, research using Jarvis’ (2006, 2009) human learning theory to explain how practicing coaches learn is rather underdeveloped and therefore would be problematic for explaining learning in coaching preparation students. Only one study has drawn upon Jarvis’ (2006, 2009) theory, which has informed coach education curricula on what comprises coaches’ primary and secondary socializations. The researchers suggest students would need to reflect on their primary and secondary socializations in order to build upon on their biography (Callary et al., 2011). However, reflection remains undertheorized in Jarvis’ (2006, 2009) human learning theory and therefore would not provide a comprehensive understanding of learning in higher education.


Mezirow (1990) developed transformative learning theory which conceptualizes learning as a change in an adult’s frame of reference, which is considered their current belief system, mindset, typical way of thinking, and their values. However, adults’ frames of reference are strongly detained within the individual, which makes it difficult for any change in their way of thinking to occur. Additionally, adult’s frames of reference elicit preconceptions which lead individuals to reject ideas that do not fit their personal views (Mezirow, 1990, 1997a, 2000). Mezirow (1990, 1997a, 2000) explains that in certain situations, adult’s frame of reference can be changed. Learning is explained as occurring through concepts of reflection, instrumental learning, communicative learning, taking action, and acquiring a disposition.

The concepts of transformative learning theory describe how encountering a disorientating dilemma creates meaning in the individual and is an opportunity for a potential change in the individual’s frame of reference (Mezirow, 2000). However, for
this change to occur, the individual will first engage in a process of reflection (Mezirow, 1990, 1991). Reflection is when the individual examines the source of this dilemma, any of the potential consequences, their current beliefs, and the beliefs of others. Then, the individual will engage in instrumental learning, which is when the individual justifies any new ideas, beliefs or values that do not fit the their current frame of reference. During this concept, the individual may seek out experimental testing to confirm any new ideas. Subsequently, communicative learning is when the individual engages in a more thorough justification of new ideas. During communicative learning, the individual engages in a dialogue where he/she may further examine the evidence, share experiences, and assess his/her own ideas in order to confirm the new views. Taking action is described as the decision to adopt the new perspective. The new perspective is acquired and engaged until new evidence concerning the new perspective is viewed as needing assessment. Finally, the individual acquires a disposition, which is described as when the individual critically reflects on his/her newly acquired views and the views of others only to continue to seek further confirmation. The individual may also engage in further dialogue with others, only to further endorse their choice to accept and change their frame of reference (Mezirow, 1990, 1991, 1997b, 2000). With respect to coaching, sport coaches have a large body of experiences that frame their coaching practices (Nash, Sproule, & Horton, 2008), which suggests that transformative learning theory (Mezirow, 1990, 1991, 1997b, 2000) could be a viable option to view coach learning.

Coaching Literature: Transformative Learning

workshop. The purpose of this theoretical paper was to present the concepts of transformative learning theory in such a way that it could be used by coach educators to change strongly valued coaching beliefs, practices, and philosophies. While this would be a daunting task in any educational setting, Sullivan (2009) explains that any new ideas, perspectives, and coaching practices that contradict the coaches’ frame of reference would to some degree engage them in a dilemma. A coach education workshop would first need to provide evidence supporting any of the presented ideas, perspectives, and coaching practices. Subsequently, after presenting evidence for these new ideas, facilitating reflection and collaborative dialogue with other coaches would provide opportunity for examining and validating the new ideas (Mezirow, 1990, 1991, 1997a). Therefore, Sullivan (2009) suggests that a coach education workshop would need to incorporate some type of self-reflective writing to encourage the organization of the coaches’ perceptions of the new coaching practices. Additionally, the workshop could then provide coaches with the opportunity to discuss and share experiences related to the new ideas presented in the workshop. This dialogue with other coaches would allow them to question and examine their own perceptions and the perceptions of others in order to confirm the new ideas (Sullivan, 2009). Sullivan’s (2009) theoretical paper provides a framework for how to change coaches’ strong preconceptions of their own coaching practices; however, further research needs to empirically examine how reflective and communicative dialogue lead to a change in coaches’ practices.

In conclusion, transformative learning theory was originally developed to explain how adults create meaning by encountering dilemmas that challenge their strong, preconceived interpretations of existing beliefs and practices (Mezirow, 1990, 1991,
However, using transformative learning theory as a framework in the higher education setting would be problematic when explaining learning because novice coaching students most likely contain a much weaker and underdeveloped belief system compared to an experienced, adult coach. Nonetheless, research exploring how adult practicing coaches learn out in the field through this lens is limited. The limited research also creates a problem for explaining how coach education students learn through transformative learning theory because we do not know how coaches’ preconceived beliefs interact with dilemmas in order to create meaningful learning experiences.


Moon’s (1999, 2004) generic view of learning explains learning to occur in a multitude of situations. Moon (1999) originally viewed learning with the assumption that information is presented and constructed in the learner from a mediated instructor. Yet, in this view of learning, knowledge acquisition is only effective if the instructor knows how to construct the information in the learner (Moon, 1999). In 2004, Moon then rejected this one dimensional view of learning only to adopt a model that represents a “vast but flexible network of ideas and feelings with groups of more tightly associated linked ideas/feelings” (p. 16). The network encompasses learning that occurs beyond what is provided by a mediated instructor but through a diverse range of situations which lead to a change in cognitive structure. The cognitive structure of an individual represents the knowledge network that is present in the learner at any particular time. Moon’s (1999, 2004) view of learning is dependent on a change in cognitive structure. The degree of change in the cognitive structure is influenced by the meaningfulness of the learning situation. In meaningful learning situations, the cognitive structure is altered and
therefore causes a change in how the learner perceives and interprets things. Moon’s (2004) learning situations, which ultimately cause the change in cognitive structure, consist of mediated, unmediated, and internal situations (Moon, 2004).

Within what Moon (2004) refers to as the external materials of learning, cognitive structure is created by an external influence. Put simply, external materials of learning are representative of “…the object, idea, the concept, the image” (p. 23). Mediated and unmediated learning situations are more specifically described as external influences. Mediated learning situations are circumstances where learning is nurtured by another individual through the use of specialized instructional materials. In unmediated learning situations, learners will typically dictate the information that is being learned and seek out new knowledge on their own. Although both of these learning situations involve external materials of learning, the degree of influence on the cognitive structure is dependent on the learning situation’s meaningfulness and interaction with the individual’s previous experiences. Internal learning situations are explored and described by Moon (2004) through reflective processing and experiential learning. Reflective processing and experiential learning elicit meaningful and deep knowledge constructions, which have the greatest impact on individual’s cognitive structure.

Coaching Literature: Generic View of Learning.

Werthner and Trudel (2006) presents Moon’s (1999, 2004) generic view of learning as a theoretical perspective to better understand how coaches learn to coach. In presenting clear representations of Moon’s learning situations, Werthner and Trudel prepare a hypothetical illustration of each of the three learning situations (i.e., mediated, unmediated, and internal) that influence a coach’s cognitive structure in a coaching
context. Within the coaching context, mediated learning situations were exemplified as formal coaching education courses, coaching conferences, or formal mentoring. Unmediated learning situations were theorized as discussions with peer coaches, searching on the internet, and meeting with athletes. Internal learning experiences were described as the reflective processes that enable the coach to connect their experiences to their cognitive structure. The researchers then framed the main concepts of Moon’s (1999, 2004) generic view of learning to analyze how one Olympic level Canadian coach learned to coach. Data were collected through a semi-structured interview.

The findings revealed that the coach’s change in cognitive structure was sourced from mediated, unmediated, and internal learning situations. More specifically, his university degree, previous playing experience (i.e., mediated), interactions with other coaches, the internet (i.e., unmediated), and reflection (i.e., internal) consumed the three learning situations. Although this research could not make any generalizations from how one coach learned, the three types of learning situations were all found to be influential. Coach education could in turn construct its curriculum around three learning situations. However, there is still a need to determine if and how one learning situation is more influential than the others in coaches of various sport contexts and levels of competition (Werthner & Trudel, 2006).

In summary, since researchers have not been able to determine which of Moon’s (1999, 2004) learning situations have the greatest influence on coaches, coach education curricula may struggle to use the generic view of learning (Moon, 1999, 2004) as a framework to promote student learning. The lack of empirical evidence and the framework’s wide view of learning situations would make it difficult to specifically
identify how to enhance learning within each situation. Because this view of learning is rather underdeveloped in coach education research, suggestions have not been made for how to construct and integrate three interconnected learning situations in the coach education curriculum.

Kolb’s Experiential Learning Theory (Kolb, 1984)

Expanding upon the work of John Dewey (1938), David Kolb’s (1984) experiential learning theory was theorized to better explain how humans learn through experience. Kolb (1984) defines learning as, “the process whereby knowledge is created through the transformation of experience” (p. 38). The central theme of Kolb’s learning theory emphasizes the function of experience through a continuous transaction between the individual and the environment. Experiential learning theory (Kolb, 1984) assumes that the acquisition of knowledge is idiosyncratically constructed through an interaction with previous understandings and active involvement in novel experiences. Kolb (1984) describes the process of learning as a four stage cycle where knowledge is created through: concrete experiences, reflective observation, abstract conceptualization, and active experimentation.

In his book, *Experiential Learning: Experience as the Source of Learning and Development*, Kolb (1984) describes the four stages of learning as a cyclic process, which is initiated by a concrete experience. The concrete experience is described as the learner’s active engagement in experience where feelings and information are gathered from the senses. The learner then reflects on, observes, and analyzes the experience from a variety of perspectives, which is characterized as reflective observation. Ideas are then assimilated from reflective observation into coherent strategies to be used in practice,
known as abstract conceptualization. Finally, the learner experiments by implementing the new strategies to solve problems, which is called active experimentation. These concepts are used to help explain how learning occurs through activity in a contextualized environment (Kolb, 1984).

**Coaching Literature: Experiential Learning**

Drawing upon experiential learning theory (Kolb, 1984), Irwin et al. (2004) explored how elite gymnastics coaches learned their coaching practices through experience. The participants selected for this study fit the criteria of being involved at the international coaching level, having at least ten years of coaching experience, and being classified as a high performance coach by the British Gymnastics Association. Fifteen male coaches and one female coach participated in semi-structured interviews.

The findings revealed that mentor coaches, experimentation, past experiences, coaching courses, coaching discussion groups, coaching manuals, and observations, enabled the coaches in this study to ascend from an initial level of competence to a higher level of understanding throughout their career. However, when coaches were in need of solving coaching problems during their coaching experiences, they relied on working it out themselves and obtaining strategies from more experienced coaches. The influential learning situations that required the coaches to work it out themselves or converse with other coaches to solve coaching problems lends support for the use of reflective skills training and mentoring to facilitate experiential learning in coaching education (Irwin et al., 2004).

In conclusion, the use of experiential learning theory (Kolb, 1984) as a framework to explain learning in the higher education curriculum could be problematic. Although
reflective skills could be taught in the curriculum, reflection is only one component of experiential learning theory (Kolb, 1984). Moreover, experiential learning theory (Kolb, 1984) does not explain how to engage the reflective process. For example, the concrete experience, which Kolb (1984) explains to initiate reflective observation, is said to be derived from feelings and information gathered during an experience. The concrete experience concept does not fully explain how or why certain feelings and information are gathered over others, which could be why coach research using experiential learning theory (Kolb, 1984) as a framework is limited. Tellingly, researchers who have drawn upon Kolb’s theorizing have looked to Schön’s (1983) theory of reflective practice to better explain learning by reflecting on dilemmas (Irwin et al., 2004).


Reflection is thought to be the foundation of all experiential learning situations, where knowledge is acquired through a process of critical thought (Dewey, 1938; Kolb, 1984; Schön, 1983). Donald Schön (1983, 1987) developed the theory of reflective practice to explain professional knowledge development and to better understand how practitioners learn through reflection. In Schön’s (1983) book *The Reflective Practitioner*, he explains that the development of contextualized knowledge occurs through a reflective process dependent on dilemmas encountered during professional practice. The learning process is said to occur in response to the resolution of either single loop or double loop dilemmas. Single loop dilemmas are often thought of as routine dilemmas, which do not induce a significant degree of reflection. Although some degree of learning still occurs when encountering single loop dilemmas, double loop dilemmas are perplexing dilemmas that elicit deep learning experiences. In double loop dilemmas, the practitioner challenges
their preexisting assumptions through a process of reflective practice. Through reflective practice, practitioners make novel sense of their experiences as they apply their own research into professional practice and move beyond technical rationality (i.e., empirical law, objectivist view, theory, prescriptions for practice). Schön (1983, 1987) describes the concepts of reflective practice in model practitioners in education, town planning, and architecture. The concepts of reflective practice are explained through role frames, reflective conversation, reflection in action, and reflection on action. A diagram of reflective practice is shown in Appendix A. Reflective conversation is not included in the diagram because it occurs during concepts of reflection in action and reflection on action.

Role frames can be described as a personal approach of a practitioner’s theory of practice framed by their previous experiences, knowledge, education, and other influences. Role frames guide the practitioner’s attention to and interpretation of certain dilemmas, while also influencing the practitioner’s repertoire or professional knowledge used to overcome the dilemmas.

Learning through reflective practice is further explained by reflective conversation, which is a revolving spiral of appreciation (i.e., problem setting), action (experimentation), and re-appreciation (problem setting). Appreciation, which is bound by the practitioner’s role frame, is the practitioner’s identification of a dilemma (i.e., problem setting). Action, described by Schön (1983, 1987), involves generating strategies and actively testing out the strategy before either re-experiencing (i.e., re-appreciation) or overcoming the dilemma. A practitioner may engage in multiple cycles of a reflective conversation before producing a satisfactory outcome. A reflective conversation can
occur during professional practice or at a later time, which causes a practitioner to either engage in reflection in action or on action.

Reflection in action occurs when practitioners engage in reflective conversation while in the midst of action. Schön (1983, 1987) refers to the confinement of reflection in action as being bound by the action present, which is the time frame in which the actions of the practitioner can still make a difference in the situation. By comparison, reflection on action is a reflective conversation that takes place outside of the action present and does not have an immediate impact on the dilemma. The spiral of reflective conversation during reflection in and on action provides insight on understanding how practitioners both construct and build upon professional knowledge through reflective practice.

Reflective practice could therefore explain how coaches construct and build upon professional knowledge in their experiences. For example, coaches often use a motivational strategy they learned from their coach when they were an athlete. This motivational strategy encompasses the coach’s current professional knowledge. However, after applying the strategy to their team, the coach may experience a dilemma when the athletes do not respond to the motivational strategy as planned. This dilemma is bound by the coach’s role frame. The coach’s previous experiences with the motivational strategy as an athlete has guided their attention towards identifying this as a dilemma when it did not go as planned. Furthermore, the attention given by the coach to this dilemma initiated the appreciation (i.e., problem setting) component of a reflective conversation. The coach would then engage in action (i.e., experimentation) by generating new strategies and actively applying the strategies to their team. If the outcomes from the newly applied motivational strategies elicited satisfactory outcomes, the coach would not re-appreciate
the problem set or dilemma. However, if the outcomes from the new motivational strategies elicited an outcome that was again unexpected, the coach would likely engage in multiple cycles of reflective conversation until a satisfactory outcome was produced.

If this reflective conversation was taking place while new strategies were being generated and experimented in an immediate response to the dilemma (i.e., action present), the coach would be engaging in reflection in action. However, if the coach appreciated the dilemma and then further hypothesized a motivational strategy to be experimented outside of the action present, the coach would be engaging in reflection on action. Reflection on action could take place at the coach’s home, through collaboration with other coaches, or through discussion with athletes. As a result of reflective practice, the coach builds upon his/her professional knowledge by making sense of their preexisting assumptions and applying their own research into professional practice. This example provides a further understanding of how coaches learn in professional practice.

Coach researchers have also taken an interest in understanding how and why coaches learn in their experiences through reflection (Gilbert & Trudel, 2001). This may be due to the literature suggesting that coaching experiences are the most influential source of coaches’ professional knowledge (Gould et al., 1990; Irwin et al., 2004). Schön’s (1983, 1987) theory of reflective practice has been used as a theoretical framework by education researchers to explain how teachers and most recently coaches learn by reflecting on their experiences (Gilbert & Trudel, 2004b; Kruse, 1997; Schön, 1991). While only a few researchers have explicitly used the theory of reflective practice (Schön, 1983, 1987) as a lens to understand coach learning (Gilbert & Trudel, 2001), others will refer to reflective practice without describing Schön’s (1983, 1987) theoretical
concepts (Knowles et al., 2001). The following sections detail the coaching literature that draws upon reflective practice and other, more general approaches to reflective practice.

**Coaching Literature: Reflective Practice**

In a theoretical essay, Gilbert and Trudel (1999) explored a few experiential learning theories to best understand how coaches learn. Subsequently, they conducted an empirical study (Gilbert & Trudel, 2001) to explain how experience leads to coaching knowledge (Kolb, 1984; Lave & Wenger, 1991; Schön, 1983). In the essay, Gilbert and Trudel (1999) argue that because of Schön’s (1983, 1987) emphasis on the use of domain specific knowledge within professional practice, his theory of reflective practice may be the best way to explore how coaches learn. Gilbert and Trudel (1999) also argued that a need exists for reflective practice (Schön, 1983, 1987) to be applied to coach education curriculums as a theoretical framework to craft learning experiences that prompt the construction of coaching knowledge (Gilbert & Trudel, 1999).

Gilbert and Trudel’s (2001) empirical study draws upon the theory of reflective practice (Schön, 1983, 1987) to study how youth sport coaches learn through reflection. The participants in this case study were five male coaches and one female coach. Data were collected from the three soccer coaches and three ice hockey coaches via onsite interviews, video tapes and audio recordings of practices and games, and documents used by the coach. The coaches selected for this study demonstrated an interest in learning about coaching practices, were considered as having a high commitment to youth sport, recognized as good leaders, and also kept winning in perspective.

Using coaching issues, role frame, issue setting, strategy generation, experimentation, and evaluation of Schön’s (1983, 1987) theory to guide the analysis of
data, the researchers found that issue setting, strategy generation, experimentation, and evaluation were central to reflective conversation (Gilbert & Trudel, 2001). The coaches would sometimes go through many cycles of reflective conversation in order to resolve a dilemma, which were first initiated by an issue setting determined by the coaches’ role frame. Other findings revealed that the coach’s engaged in reflection in action, reflection on action, and retrospective on action. While reflection in action occurred during the action present and reflection on action occurred outside of the action present, Gilbert and Trudel (2001) extended Schön’s theory, and found that coaches also engage in reflective conversation during what they called retrospective reflection on action (i.e., reflection during the off season). Retrospective reflection on action was found to have a critical role on learning because the engagement in reflection outside of the coaches’ current season induced further thought and strategy generation. Another significant finding suggests that not all coaches may engage in reflective conversation and often miss the opportunity for meaningful learning situations. The results of this study provide evidence to support the need to improve coaches’ reflective skills and ability to identify dilemmas outside of their role frames (Gilbert & Trudel, 2001).

In order to improve coaches’ reflective practice and their ability to identify dilemmas, researchers needed to determine how coaches’ role frames were developed. Therefore, expanding upon their previous research (Gilbert & Trudel, 2001), Gilbert and Trudel (2004) examined youth sport coaches’ behaviors and practices in order to determine the components that construct coaches’ role frames. The participants consisted of three ice hockey and three soccer coaches who had participated in the previous study (Gilbert & Trudel, 2001). Data were collected through a series of interviews,
observations (i.e., audio and video recordings), on-site interviews, and member check interviews.

The results revealed that age group, competitive level, and gender were three boundary components of the coaches’ role frame, which were categorized as situational factors that influenced the coaches’ practices. Additionally, nine internal components consisting of discipline, fun, personal growth and development, winning, sport specific development, equity, positive team environment, emphasis on team, and safety were found to construct the coaches’ role frames. Gilbert and Trudel (2004) found that the coaches’ role frames were at times representative of some of the coaches’ actual displayed behaviors. However, due to some of the disparity between what the coaches’ said were factors that influenced their coaching practices and their actual observed coaching behaviors, Gilbert and Trudel (2004) concluded that there may be other implicit components that make up coaches’ role frames. These implicit components, which were unable to be identified in this study, were suggested to have impacted the participants’ coaching practices. This would suggest a need for coach educators to develop strategies that help coaches gain a better understanding for their own personal views and how they impact their coaching practices. By understanding what makes up one’s role frame, there is an opportunity for coaching practices, views, and beliefs to be further developed through reflection.

Nelson and Cushion (2006) empirically explore the use of reflective practice within a formal coach education curriculum. The United Kingdom (UK) National Governing Body (NGB), which was the case being examined for evidence of reflective practice (Schön, 1983, 1987), was in the process of creating a coach education program
that aligned with the UK coaching certificate (UKCC) guidelines. Data were collected by interviews, observations, and documentation from the two employees responsible for overseeing the assembling of the coach education curriculum. Using Schön’s (1983, 1987) framework of reflective practice, data were grouped under six categories (i.e., coaching issues, role frame, issue setting, strategy generation, experimentation, and evaluation).

The findings displayed that the NGB proposed to present ethics, values, and diverse practices to facilitate the re-construction of a coach’s role frame (i.e., philosophy, past experiences) within their curriculum. Also embedded in the curriculum were components to facilitate reflection in and on action by exposing students to potential coaching dilemmas. Accompanying this exposure, a variety of potential coaching strategies that could be used to overcome these dilemmas were also presented throughout the curriculum. Additionally, the NGB understood the importance of practical experience and therefore presented opportunities for coach learners to conduct reflective conversations in the field. The researchers explained that although it is highly unlikely that the prescriptions of Schön’s (1983, 1987) theory of reflective practice will produce immediate professional level coaching knowledge, there is a greater likelihood that coaches’ reflective skills will continue to grow throughout their career as a result of the curriculum (Nelson & Cushion, 2006).

In a similar study examining coaching education curricula, Knowles et al (2005) analyzed how the theory of reflective practice (Schön, 1983, 1987) was used as a learning strategy within six NGB coach education curricula. In this empirical study, data were collected through documentation of each of the programs content and structure. Data
were then analyzed and categorized into key concepts that demonstrated if the curricula were engaging reflective skills and experiential knowledge development. The categories included critical reflection, evaluation of coaching sessions, concepts of reflection, teaching reflective skills, technical content of coaching sessions, values and beliefs, logged coaching experience, and mentoring.

The findings revealed that all of the coach education curricula in this study disregarded the use of reflection. Although two programs displayed learning outcomes related to reflection, no evidence supported features in which reflective skills were actually taught. Additionally, all of the programs seemed to recognize the importance of coach learning through experience (i.e., mentoring period or coaching practical experience); however, the foundation of the curricula dissociated from any experiential learning theory (Kolb, 1984) or theory of reflective practice (Schön, 1983, 1987) framework. The researchers suggest a need for coach education curricula to move beyond traditional approaches and use the theory of reflective practice (Schön, 1983, 1987) as a framework to support coach learning (Knowles et al., 2005).

Knowles et al. (2001) developed and empirically studied the effectiveness of a reflective practice program that was implemented in a higher education sport coaching curriculum at Liverpool John Moores University in the UK. The researchers assessed the reflective skills of eight coach science students as they completed the curriculum. The core curriculum consisted of a theme intended to elicit reflective coaching practices, which preceded a 60 hour professional coaching experience that incorporated journaling and facilitated reflective workshops. Semi-structured interviews were conducted to collect data after the students had completed the core curriculum course, during the
professional coaching experience, and upon conclusion of the professional coaching experience.

The findings revealed that with the exception of one of the students, the coaches demonstrated a positive shift in their reflective practices upon completion of their coaching experience. The reason for the lack of positive change in reflection from one of the coaches was explained as being a result of them not having coaching or playing experience in the sport that they were coaching. The researchers suggested that this was elicited by a lack of confidence in the student's coaching practices. Other findings revealed that the coaches held a positive perception of the reflective workshops; however, they expressed a need for structure to facilitate their reflection in their coaching journals. The findings from this study demonstrated the effectiveness of a theoretically grounded formal coach education curriculum on coaches’ ability to engage in reflective practice. Finally, this study suggests the need for further examination of the utilization of a reflective practice framework in coach education curricula in order to better understand how higher education coach preparation students learn to reflect (Knowles et al., 2001).

Extending the work of Knowles et al. (2001), Knowles, Tyler, Gilbourne, and Eubank (2005) empirically examined how coaching science graduates used reflective practice to enhance their coaching practices out in the field. Twelve participants were contacted to participate in this study upon graduating from Liverpool John Moores, University, UK, which implemented reflective practice into their curriculum. The reflective practice curriculum was presented in the Knowles et al. (2001) study. Data were collected via semi-structured interviews; however, a priori the coaches were asked
to review any of their reflective evaluations, reflective journals or any other forms of reflection that they have previously and currently use to enhance their coaching practices.

The qualitative data analysis of the semi-structured interviews revealed that although the coaches valued and used reflection to enhance their coaching practices after graduation, they did not show signs of reflecting at higher and more critical levels. The researchers suggest that although these higher levels of reflection could have been restricted by the coaches’ inexperience, they did provide evidence for reflecting on information acquired from other coaches and their coaching peers. Additionally, the coaches also perceived reflective writing as being a beneficial tool to facilitate reflection on their coaching practices during their undergraduate coursework. However, their reflective writing soon stopped after graduation, which was deemed as being too tedious when also having to deal with real world stresses and professional accountability in their current coaching positions. While the researchers suggested that the coaches adapted their reflective practices into more idiosyncratic approaches post-graduation, the findings also suggest that a coach’s lack of time to reflect serves as a barrier to written reflections. However, there is a need to further examine reflective journaling in both coach education students and practicing coaches. Additionally, there may be a need to examine how coach education curricula can develop reflective practice so that it is continued when the coaching students become practicing coaches post-graduation (Knowles et al., 2006).

Summary of Constructivist Perspectives

Differing from the cognitivist perspective where knowledge is thought to be mapped or transferred into the coach’s mind from the external world, the constructivist perspective posits learning is idiosyncratically built upon coaches’ current perceptions.
and interpretations by creating meaning through their experiences (Ertmer & Newby, 1993). Coaching research from the constructivist perspective has used a breadth of learning theories to better understand how coaches create meaning in their experiences. In this research, experiential learning, reflection, and social interactions have been found to be reoccurring sources in which researchers explain coach learning. Although a multitude of learning theories have been used by researchers which have yielded rather consistent findings (i.e., experiential, reflection, and social interactions), a majority of this research has been conducted on practicing coaches. These empirical explorations have theoretically explained how practicing coaches learn which has helped inform coach education curriculums on how to enhance coach learning (Culver et al., 2009; Culver, 2004; Gilbert & Trudel, 2001; Knowles et al., 2001). Although a few coach education curricula have responded to such suggestions and used learning theory to underpin their curriculum (Nelson & Cushion, 2006), others have not (Knowles et al., 2005). Nonetheless, there is limited research that theoretically explains how coaching students learn in any coach education curriculum (Knowles et al., 2001). Additionally, there still remains little research that has comprehensively explored the effectiveness of a theoretically informed coach education curriculum on coach learning (Cushion & Nelson, 2013). A theoretical understanding for how coaching students learn and the effect of a theoretically driven coach education curriculum would hold great promise for coach educators in constructing ways to enhance learning.

Schön’s (1983, 1987) theory of reflective practice lends itself as the most viable framework to enhance coach learning because of its theoretical basis for explaining reflection when encountering dilemmas in professional practice. A coach’s ability to
reflect upon idiosyncratic dilemmas would provide opportunities to construct meaningful learning experiences and transform technical rationality into a form of professional artistry. Schön’s ideas would be beneficial for improving the quality of sports coaches because of its applicability for creating meaningful learning experiences in the higher education coach preparation curriculum.

In higher education, sport coaching curricula present coaching majors with quality information in sport science (i.e., physiology, sport psychology, biomechanics), tactical, and technical content areas (Cassidy, Jones, & Potrac, 2004; Knowles et al., 2001). Interestingly though, coach education curricula are often criticized for having a low level of applicability to professional practice (Abraham & Collins, 1998; Irwin et al., 2004). This would suggest there is a potential disconnect between the content being presented in coach education curricula and coaches actually applying this knowledge into practice. Instead of using information presented in coach education curricula, we know practicing coaches often cite acquiring knowledge from a variety of sources such as coaching journals (Schempp, Templeton, & Clark, 1999), coaching manuals (Irwin et al., 2004), books, coaching videos, the internet (Wright, Trudel, & Culver, 2007), and mentors (Bloom et al., 1998). However, the information acquired from these sources has been suggested to lack the quality necessary to create effective coaching practices (Mallett, Trudel, Lyle, & Rynne, 2009). Therefore, reflective practice may offer a way to improve upon the quality of coaching by connecting quality information presented in coach education curricula with professional practice. However, research has suggested that not all coaches reflect on dilemmas encountered out in the field know how to reflect on their coaching problems (Gilbert & Trudel, 2001), nor is there substantial evidence to support
that reflective practice is being nurtured in coach education curricula (Knowles et al., 2001). Therefore, enhancing reflective practice through coach education is an essential way to help the same formal coursework that may never be applied to the field become integrated into professional practice and used for solving idiosyncratic dilemmas throughout a coach’s career. Far more developed large scale educational fields, such as teacher education, have garnered great interest in specifically using reflective journaling to cultivate students’ ability to transform technical rationality into professional practice (Bain et al., 2002).

**Reflective Journaling in Higher Education**

Compared to sports coaching, educational research has provided far greater explorations of the utility and effectiveness of students’ reflective journals (Standal & Moe, 2013). The following section reviews the research on the benefits, barriers, and strategies used by educators to enhance reflective practice through journal writing.

Research suggests reflective journaling to be the most advocated approach to develop pre-service students into reflective practitioners (Bain et al., 2002; Pedro, 2005; Risko et al., 2002). For example, Risko et al., (2002) demonstrates that reflective journaling engages students in a reflective process that provides them the opportunity to connect theoretical concepts acquired during coursework to professional practice. Reflective journaling has also been advocated to develop critical inquiry (Callister, 1993), self-evaluation (Heinrich, 1992) and observational skills (Patton et al., 1997), and reduce stress when students write about challenging dilemmas (Callister, 1993). Although these benefits offer evidence for using reflective journaling in the higher education curriculum, barriers do exist.
One major factor that hinders reflective practice is time (Greiman & Covington, 2007). Similar to what is required of coach education practicum students in higher education, pre-service teachers out in the field spend an excessive amount of time managing the classroom (i.e., managing athletes, field or court), preparing lessons (i.e., practice plans), and teaching (i.e., coaching). Therefore, students often report feeling as if there is a lack of time to think critically about dilemmas and generate new strategies, let alone write about such thoughts in a journal (Greiman & Covington, 2007; Lee & Loughran, 2000). Another barrier to journal writing encompasses students’ willingness to take risks (Moon, 1999). Cowan and Westwood (2006) suggest the development of reflective skills is compromised when pre-service teachers encounter a dilemma and do not have the courage to apply the new strategies that they describe in their journals. Furthermore, when students actually do have the courage to apply new strategies, yet fail to overcome the dilemma, journaling coerces them into writing about these failures. Writing about these failures often elicits a resistance to sharing feelings and ideas with others, and therefore students may not be truthful or reflective in their journals (Cowan & Westwood, 2006). However, educators often overcome the aforementioned barriers by implementing instructional strategies that show promise for enhancing students’ reflective practice.

Some research suggests an influential strategy to enhance reflective practice is through formally teaching reflective skills in conjunction with journaling (Francis, 1995; Spalding & Wilson, 2002). For example, some educators will spend class time on discussing and explaining various reflection models (Spalding & Wilson, 2002), while other educators provide weekly workshops to teach reflective skills (Knowles et al.,
Despite these suggestions, other researchers argue that reflective practice is not something that can be taught through a sequence of prescribed steps but is rather idiosyncratically developed through time (Baird et al., 1991; Ross, 1989). Instead of lecturing students on how to be reflective, educators have suggested using feedback and rubric assessments on students’ journals to better facilitate reflection (Bain et al., 2002; Pailliotet, 1997). However, feedback and rubric assessments have been found to constrict students’ critical thinking abilities and autonomy (Pailliotet, 1997; Wolf, Mieras, & Carey, 1996). Perhaps the best strategy to facilitate reflection is through the implementation of journaling guidelines and journal prompting, which provides enough guidance and support, yet does not compromise the students’ autonomy (Bain et al., 2002; Clark, 1994; Cohen-Sayag & Fischl, 2012; Davis, 2006). These strategies are often used as a course assignment and contain a modest point allocation (i.e., five points per journal submission; Bain et al., 2002; Spalding & Wilson, 2002). Another strategy has been to require no word limit to further engage students’ reflective processes, which allows them to go beyond the boundaries for which they are rewarded in their journaling assignments (Nelson, 1990). Furthermore, educators often take a non-collaborative approach to journaling as a strategy to overcome students’ hesitancy to share feelings and ideas with other students (Cowan & Westwood, 2006). Given our technological age, it also makes sense that educators in higher education have most recently used technology based journaling to encourage reflective practice (Chretien et al., 2008; Stiler & Philleo, 2003). As it is of importance to the current study, technology based journaling will be reviewed here to better understand how it has been used in educational research.
Technology Based Journaling

As a result of the rapid development of technology, educators in higher education have become highly interested in its integration as a way to enhance student learning (Kozma, 1991). Web blogs, digital portfolios, voice threads, texting, personal digital assistants, and online learning environments (i.e., Blackboard) have all been used as technology based journaling tools to facilitate reflection (O'Connell & Dyment, 2011; Stiler & Philleo, 2003; Yang, 2009). Although there is a paucity of research on educating sport coaches through the use of technology based journaling in higher education, teacher education research has explored technology based journaling use for developing students’ reflective practice. In this section, I examine the relevant research pertaining to the barriers and benefits of technology based journaling.

While limited research has been able to identify which type of technological journaling tool (i.e., web blogs, digital portfolios, texting, online learning environment) is most effective, some research advocates that technology attributes little evidence for enhancing reflective practice in students (Killeavy & Moloney, 2010). One barrier to enhancing students’ reflective practice through technology based journaling is students’ hesitancy to share ideas. This barrier has been suggested to occur when technology based journaling is accompanied with a collaborative approach in an online environment. In the online environment, students are connected without face-to-face interactions and are often unfamiliar with the other individuals in the social network that have access to their ideas (Killeavy & Moloney, 2010). This barrier is consistent with other reflective journaling research, which has suggested reflective skills are compromised when students do not trust the others viewing their journals (Cowan & Westwood, 2006). Another
barrier to technology based journaling is the need for Internet access. In situations where there is limited or no access to the Internet, students have been unable to complete and submit their technology based journals to their instructors. Additionally, students have often reported being fearful of losing their Internet connection when they are reflecting in their journals (Gleaves, Walker, & Grey, 2007; Killeavy & Moloney, 2010). The frustration induced from the Internet connection and the use of technology in general to journal can yield an apathetic level of motivation towards reflection (Killeavy & Moloney, 2010). Despite the aforementioned barriers to using technology, research exploring the differences between technology based journaling and traditional written approaches has provided evidence supporting more beneficial outcomes by using technology.

Research has suggested that compared to traditional educational approaches, the use of technology offers far greater learning opportunities and increased levels of students autonomy (Kozma, 1991; Rodzvilla, 2002). Technology based journaling has been found to be a powerful tool to develop students’ reflective skills, critical thinking capacities (Gleaves et al., 2008; Yang, 2009), and their ability to apply contextual knowledge (Bouldin, Holmes, & Fortenberry, 2006). Gleaves et al. (2007) demonstrated that students’ technology based journal submission were more straightforward and direct, when compared to written approaches. The more straightforward technology based journaling responses, which yielded greater gains in students’ reflection, were suggested to be a result of the students’ fear of losing the Internet in the midst of their journaling. Interestingly, while other research has suggested technological access issues are a barrier to technology based journaling approaches (Killeavy & Moloney, 2010), the mere fear of
losing the Internet may actually enhance students’ ability to reflect (Gleaves et al., 2007). Although Internet connection issues and its effect on reflection need further examination, we do know that when the Internet is accessible, the instantaneous opportunity for students to make journal submissions has shown to facilitate reflection and increase student autonomy (Gleaves et al., 2008). Additionally, researchers have also demonstrated that students typically prefer technology based journaling over a handwritten approach (Gleaves et al., 2008). Although technology based journaling has not been explored in coach education, the aforementioned research in higher education that demonstrates its effectiveness and positive student perception would suggest its use to be a viable means for coach educators to develop coaches’ intrapersonal knowledge.

Intrapersonal Knowledge

Intrapersonal knowledge has been considered a necessary component for effective coaching and the development of coaching expertise (Côté & Gilbert, 2009). Intrapersonal coaching knowledge represents the ability to engage in self-reflection and understand these self-reflections such that experiences are transformed into new knowledge, skills, and behaviors (Côté & Gilbert, 2009). Self-reflection and understanding of oneself is a skill that can be enhanced and could be evidence for being a reflective practitioner. As coach practitioners develop intrapersonal knowledge, they achieve an enhanced ability to transcend their traditional coaching practices into professional artistry by applying their own generated strategies into professional practice (Schön, 1983). Enhancing intrapersonal knowledge through coach education would provide coaches with the ability to revise their own coaching practices in order to maximize athlete outcomes, which would show promise for improving the quality of
sport coaches (Côté & Gilbert, 2009; Cushion et al., 2003). At present, evidence for the efficacy of a coach education curriculum on intrapersonal knowledge is limited (Knowles et al., 2001). A related problem on providing evidence for the efficacy of coaching education is the need to have good measures to assess intrapersonal knowledge. This gap would in part be due to the lack of research that has explored how to quantitatively assess coaches’ intrapersonal knowledge. The following sections review reflection rubrics and the Self-Reflection and Insight Scale as viable options to assess students’ intrapersonal knowledge in a coach education curriculum.

**Levels of Reflection Rubrics**

Research has shown that rubrics are a reliable method to assess student performance (Hafner & Hafner, 2003; Simon & Forgette-Giroux, 2001). Researchers have used a variety of different reflection rubrics to assess students’ writing in order to determine reflective practice performance (Richardson & Maltby, 1995; Wong, Kember, Chung, & Yan, 1995). The following section first explores some of the various rubrics used by researchers to assess reflection. The purpose of this exploration was to determine the most viable rubric to assess students’ reflective practice for the purpose of this project. Upon making a decision to use a version of Mezirow’s (1981) rubric, which was modified and adopted by Powell (1989), the latter paragraphs within this section examine related research that have used these two rubrics. Related research using both of these rubrics are explored due to the fact that Powell’s (1989) rubric contains the same levels of reflectivity as Mezirow’s (1981) rubric minus one level.

Boud, Keogh, and Walker’s (1985), Mezirow’s (1990), and Jay and Johnson’s (2002) reflective rubrics have been adopted by researchers to assess practitioner’s ability
to transform experience into learning (Boud et al., 1985; Jay & Johnson, 2002; Mezirow, 1990). Boud et al.’s (1985) rubric contains a more complicated differentiation between six levels of reflection compared to other rubrics that only use three levels, such as Mezirow’s (1990) and Jay and Johnson’s (2002) rubric. Researchers using Boud et al.’s (1985) rubric have stated difficulty in establishing inter-rater reliability (Wong et al., 1995). However, both Mezirow’s (1990) and Jay and Johnson’s (2002) three levels of reflection rubrics have shown promise in demonstrating the ability to establish inter-rater reliability (Cohen-Sayag & Fischl, 2012; Wong et al., 1995). Mezirow’s (1981) seven levels of reflection is another rubric that has been used to assess how well practitioners learn through reflection. However, researchers have often found difficulty in differentiating between two of the levels in this rubric (Powell, 1989; Richardson & Maltby, 1995).

Derived from Mezirow’s (1981) seven levels of reflectivity, Powell (1989) adopted six of the seven levels to assess nurse practitioners’ reflection in action (Schön, 1983). Powell’s (1989) adopted rubric has demonstrated the ability to establish inter-rater reliability (Richardson & Maltby, 1995). This is significant because other six level rubrics, such as Boud et al.’s, (1985) rubric, have shown difficulty in establishing inter-rater reliability. Additionally, Powell’s (1989) six level rubric allows for greater differentiation between levels of reflection in statistical analysis testing compared to the three levels of reflection rubrics (Mezirow, 1990; Jay & Johnson, 2002). Furthermore, Powell’s (1989) adopted rubric derived from Mezirow (1981) has been found to be a viable approach to assess levels of reflection in professional practice (Richardson & Maltby, 1995).
Powell’s (1989) adopted rubric has been used to determine practitioners’ (i.e., nurses) ability to apply theory into practice based on Schön’s (1983) concepts of reflection in action. The rubric has also been used by researchers to assess Schön’s concept of reflection on action in students’ reflective journals (Richardson & Maltby, 1995). The findings from both Powell’s (1989) and Richardson and Maltby’s (1995) research yields similar findings, suggesting that practitioners typically reflect at lower levels (levels 1-3). Interestingly in these studies, the participants were not provided any reflective skills training, and their reflective practice performance was assessed at one time period. However, research assessing reflection using Mezirow’s (1981) rubric over three time periods revealed a decrease in reflection after an initial reflective practice instructional training session was discontinued prior to pretesting (Jensen & Joy, 2005). This would support the need for educators to facilitate students’ reflective practice during their professional experiences (i.e., practicum) in order to cultivate higher levels of reflection.

In coach education research, Knowles et al. (2001) examined the effect of a coach education curriculum on students’ self-reflective skills. In order to assess students’ self-reflective skills, the researchers adopted a rubric from Mezirow (1981), Powell (1989), and Goodman (1984). The reflection rubric in this research was used to assess students’ journals and semi-structured interview transcriptions at the beginning and ending stages (i.e., pretest and posttest) of a coach education curriculum designed to enhance reflective skills. Although there were only eight coaching education students in this study, the findings demonstrated that five of the eight students increased their levels of reflection from pretest to posttest. However, it should be noted that one of the students who
participated in this study did not receive a reflection score during one of the assessment time periods and therefore was categorized as not demonstrating positive gains in reflection. The two other students who did not display positive gains in reflection were unfamiliar with the sport they were coaching in their field experiences. Four out of the five students that experienced an increase in reflection, also reached higher levels (i.e., levels 4-6) in posttest scores. This would suggest that reflection rubrics have the ability to determine the effect of reflective skills training in a coach education curriculum by identifying changes in students’ reflective practice. While rubric assessments offer a way to measure the degree in which students learn by using reflective skills, the Self-Reflection and Insight Scale has been used to determine changes in psychological factors related to reflection.

*Self-Reflection and Insight Scale*

The Self-Reflection and Insight Scale (SRIS; Grant et al., 2002), which is an advanced measure of the Private Self-Consciousness Scale (Fenigstein, Scheier, & Buss, 1975), is used as a measure to assess the essential metacognitive factors in the self-reflective processes underpinning behavior change. The key metacognitive factors measured in this scale are self-reflection and insight. The sub-constructs of self-reflection (SRIS-SR) are engagement in self-reflection (SRIS-SRE) and need for self-reflection (SRIS-SRN). These constructs measure introspection and the evaluation of one’s thoughts, feelings and behaviors. Insight (SRIS-IN) measures the transparency of understanding one’s thoughts, feelings, and behaviors (Carver & Scheier, 1998; Grant et al., 2002).
In this section, I first explore some of the variables that have shown to have a potential influence on the SRIS scores. I then examine existing research that has used the scale to determine the effect of an educational intervention. Subsequently, I address the viability of the scale to be used as a way to assess coach education students’ metacognitive factors influencing behavioral change. The scale’s development, validity, and reliability are addressed in Chapter III.

Research using the SRIS has found that a few variables may have an effect on the self-regulatory processes of behavioral change. Diary writing has been one suggested variable to influence SRIS scores (Grant et al., 2002). Individuals keeping regular diaries have shown to be more apt to score higher on SRIS-SR; however, scores on SRIS-IN typically remain unaffected (Grant et al., 2002). Gender also appears to influence the SRIS-SR, as women are more likely to self-reflect than men (Haga, Kraft, & Corby, 2009). This would be understandable considering women are more apt to express their emotions than men (Brooks, 1998; Haga et al., 2009). However, other research suggests that within the sub-constructs of SRIS-SR, there are no differences in SRIS-SRE and SRIS-SRN between men and women (Roberts & Stark, 2008). In regard to SRIS-IN however, men have shown to typically score higher than women (Roberts & Stark, 2008). Multiple studies have shown that age is another variable to have an influence on SRIS scores (Haga et al., 2009; Roberts & Stark, 2008). More specifically, the age of 25 has been found to be a cutoff point where individuals will typically score higher on both the SRIS-SR and SRIS-IN constructs (Haga et al., 2009). However, research has demonstrated that 18-26 year old college students yield no increase in SRIS-IN over the four year period they attend college (Roberts & Stark, 2008). Despite the aforementioned
variables explaining differences in the SRIS scores, individual characteristics have also been identified as potential factors influencing the self-regulatory processes of behavioral change (Haga et al., 2009; Silvia & Phillips, 2011).

Researchers have suggested that psychological characteristics, such as an individuals’ personality, emotional regulating processes, and psychological well-being may influence their ability to attend to self-reflection and insight (Grant et al., 2002; Salovey, Hsee, & Mayer, 1993). For example, research examining personality types has demonstrated that individuals will either view themselves through their inner self and feelings (i.e., private self-consciousness) or view themselves as they would be observed by others (i.e., public self-consciousness, extraversion). Both of these types of individuals have shown to score higher on SRIS-SR, but not SRIS-IN (Haga et al., 2009; Silvia & Phillips, 2011). However, when individuals are able to examine their inner feelings and then reappraise these feelings (i.e., cognitive reappraisal), they have shown to exhibit higher scores in both SRIS-SR and SRIS-IN (Haga et al., 2009). Yet, an individual’s ability to examine their inner feelings and then reappraise these feelings are often depicted by their psychological well-being at any given time, which can often comprise their ability to score higher on both SRIS-SR and SRIS-IN. For example, when individuals exhibit higher levels of anxiety (i.e., neuroticism), they will demonstrate low scores on both SRIS-SR and SRIS-IN constructs (Haga et al., 2009). Other researchers have associated higher levels of anxiety with higher scores in SRIS-SR, but not SRIS-IN (Harrington & Loffredo, 2010; Silvia & Phillips, 2011). Conversely, individuals with a more positive psychological outlook exhibit higher scores in SRIS-IN, rather than SRIS-SR (Harrington & Loffredo, 2010). This would makes sense that highly anxious
individuals focus on negative aspects of their experiences and remain in the self-regulating processes, while individuals with a more positive psychological well-being are able to move past the self-regulating processes and into gaining insight (Harrington & Loffredo, 2010; Silvia & Phillips, 2011). Because research has shown that these psychological characteristics vary between contexts (Feldman Barrett, Gross, Conner, & Benvenuto, 2001), researchers have explored the use of educational interventions to enhance an individual’s ability to self-reflect and gain insight (Grant, 2003).

Research in fields other than sport coaching has examined the effect of educational interventions on students’ self-reflection and insight (Chow et al., 2011; Grant, 2003, 2008). Grant (2003) used the SRIS to examine the effect of an educational intervention, in a one group pretest posttest research design. The results revealed a significant increase in insight scores from pretest ($M = 35.65, SD = 6.71$) to posttest ($M = 38.60, SD = 5.55$); $t(1, 19) = 2.64, p = .02$, with a medium effect size ($d = .59$). Although, the results also yielded a significant decrease in self-reflection from pretest ($M = 56.05, SD = 5.56$) to posttest ($M = 49.05, SD = 10.19$); $t(1, 19) = 3.40, p < .01$, with a medium effect size ($d = .76$). The results suggest that as individuals move through a self-reflective cycle towards behavioral change, they become more engaged in experiencing insight rather than reflection. The intervention in this research, which yielded gains in insight rather than self-reflection, emphasized goal setting and developing action plans through a learning community approach, rather than developing reflective skills (Grant, 2003). However, research that has examined the effect of a reflective skills intervention has provided evidence for its ability to increase SRIS-SR (Asselin & Fain, 2013). The intervention in this research consisted of using prompting cues, written narratives, and
peer collaboration to enhance reflection in three two hour sessions spanning three weeks (Asselin & Fain, 2013). Other existing research examining the effect of a reflective practice intervention has shown to yield significant increases in SRIS-SRE, SRIS-SRN, and SRIS-IN (Chow et al., 2011). The intervention in this study was implemented into a higher education course, which incorporated experiential exercises, reflective discussions, journal keeping, and instructor feedback (Chow et al., 2011). The aforementioned research provides further support for using the SRIS to assess intrapersonal knowledge in coach education students.

Although the constructs of the SRIS are in alignment with how Côté and Gilbert (2009) defines intrapersonal coaching knowledge, researchers have only proposed that the SRIS could be a potentially valid and reliable scale for assessing coaches’ intrapersonal knowledge (Gilbert et al., 2012). In limited evidence, Bertram and Gilbert (2011) have experimented with assessing coaches’ intrapersonal knowledge using the SRIS scale. While the researchers did not have enough participants for a statistical analysis, they did not have any issues regarding the SRIS or suggest a need to revise the scale for the coaching population (Bertram & Gilbert, 2011). However, multiple studies exploring thousands of college participants has provided support and validation of the SRIS constructs to measure and investigate the mental processes of intrapersonal knowledge, which provide support for using the SRIS to assess intrapersonal knowledge in higher education coaching students (Grant et al., 2002; Haga et al., 2009; Harrington & Loffredo, 2010; Roberts & Stark, 2008; Silvia & Phillips, 2011).
CHAPTER III
METHODS AND PROCEDURES

The purpose of this study was to understand how coach education practicum students engage in reflective practice. In this chapter, I provide a description of the methods and procedures of this study, which is organized in the following sections: research design, participants, procedures, quantitative data collection, quantitative data analysis, qualitative data collection, qualitative data analysis, and trustworthiness.

Mixed Method Research Design

This study proposed a mixed method design. The mixed method research design afforded me the opportunity to collect rich and descriptive data that was able to lead to a comprehensive understanding of reflective practice in coach education practicum students. Methodological and data triangulation is an advocated approach in the social science field used to facilitate the validation of data and therefore produce accurate and credible findings (Patton, 2002). Using both methodological and data triangulation, I employed quantitative and qualitative methods to collect multiple sources of data in order to address the purpose and each of the research questions (Lincoln & Guba, 1985; Patton, 2002). A data source matrix is provided in Table 1 to show the data source that was used to answer the corresponding research question.

The quantitative component encompassed a pre-experimental, one group, pretest posttest research design. This type of research design is an exploratory approach, which recognizes the worthiness of further investigation. The pre-experimental research design, which does not include random assignment or a control group, exposes multiple threats to internal validity (i.e., history, maturation) and therefore makes it difficult to rule out
alternative explanations (Campbell et al., 1963). Despite these limitations, this part of the study examined coach education practicum students’ intrapersonal knowledge before and after an intervention (i.e., online structured reflective journaling). Therefore, this quantitative component examined the relationship with an online structured reflective journaling intervention on students’ intrapersonal knowledge using data sources collected from the Self-Reflection and Insight Scale (Grant et al., 2002) and levels of reflection rubric (Mezirow, 1981; Powell, 1989).

The qualitative component examined what students reflect upon within their online structured reflective journals and also the extent to which the students reflect. Additionally, I examined the students’ perceptions of online structured reflective journaling. Qualitative data sources included students’ online responses to structured reflective prompts and students’ written responses to open ended post practicum reflections. The qualitative examination provided an in-depth understanding of reflective practice in coach education practicum students at a large southeastern university.

Table 1

<table>
<thead>
<tr>
<th>Research Question</th>
<th>Data Source</th>
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<tr>
<td>What is the effect of online structured reflective journaling on coach education students’ reported self-reflection and insight scores from pretest to posttest?</td>
<td>Pretest and posttest of Self-Reflection and Insight Scale (Grant et al., 2002).</td>
</tr>
<tr>
<td>What is the effect of online structured reflective journaling on coach education students’ level of reflection from pretest to posttest?</td>
<td>Pretest and posttest of practical papers scores using the levels of reflection rubric (Mezirow, 1981; Powell, 1989).</td>
</tr>
</tbody>
</table>
Table 1 (continued).

| What, and to what extent, did the students reflect within their online structure reflective journals? | Student online responses to structured reflective prompts. |
| What are the students’ perceptions of online structured reflective journaling? | Student written responses to the open ended post practicum reflections. |

Participants

Twenty-two undergraduate students, majoring in sport coaching education at a large southeastern university, were enrolled in a practicum course participated in this study. The purpose of this course was to provide students an opportunity to gain practical coaching experience. In order to be enrolled in this course, students must have completed all of the prerequisites (i.e., approval from the instructor, First Aid, Introduction to Sport Coaching/Technology, Sports Pedagogy, a coaching methods class, and a junior/senior standing status). The instructor matched the site selections (i.e., coaching practicum placements) of all participants to the student’s interests and skills, which were determined through a discussion with the instructor and each student. The following section describes the procedures of the present study.

Procedures

All of the following procedures were first approved by the Institutional Review Board (Appendix B). In the spring 2014 semester, all sport coaching education students, who were enrolled in a practicum course required for sport coaching majors, were asked to participate in the study. In order to deliver a clear description of the research design, a timeline is provided in Appendix C that outlines the events, responsibilities, and dates in which they occurred during the research project.
Because the sport coaching education major at the university in which this study took place was an accredited curriculum (i.e., National Council for Accreditation of Coaching Education; NCACE), specific requirements were necessary to ensure student fulfillment of their practicum experience (i.e., orientation meeting, accessible email account, resume and cover letter, monthly time sheet, practical papers, site supervisor evaluations, final report, and final conference). The syllabus for class during the spring 2014 semester can be found in Appendix D. The components, purposes, requirements, and expectations assigned to the course are outlined and detailed in the practicum packet (Appendix E). These procedures, as listed in Appendix E, were issued to the students to facilitate their understanding of the course content. With cooperation from the course instructor, an online structured reflective journaling intervention was added to the traditional practicum course requirements in the spring 2014 semester. A summary of the intervention’s components and requirements that were added to the spring 2014 course can be found in Appendix F and G.

Course assignments required students to complete a short questionnaire (Appendix H), two practical papers (Appendix I; also included in Appendix E), respond to online structured reflective journaling prompts (Appendix J), and respond to open-ended post practicum reflections (Appendix K). I used the short questionnaire to assess the participants’ baseline level and follow up measures of self-reflection and insight. I administered the short questionnaire in the orientation meeting and in the final exit meeting evaluation (i.e., 20 points towards grade in each meeting). I also used the practical papers that relate to the National Standards for Sports Coaches (NASPE, 2006) to assess levels of reflection. The students submitted the practical papers to the instructor
at two different points during the semester (i.e., pre, February 19\textsuperscript{th} and post, April 16\textsuperscript{th}). I used a levels of reflection rubric (Appendix L) on the first submitted practical paper and the last practical paper to assess baseline and follow up measures of students’ reflection. As mentioned previously, I added the online structured reflective journaling component to the syllabus (Appendix D) and practicum packet (Appendix E) as an intervention in spring 2014 practicum course with permission from the instructor.

\textit{Preliminary Procedures}

As part of the practicum course, students were required to attend an orientation meeting (i.e., second week of spring 2014 academic calendar; January 22nd). During this meeting, the instructor was asked to leave the meeting in order to reduce the possibility of student coercion to participate. Before I asked the students to participate, I first gave a brief description of the study, which was located on the consent form (Appendix M). From this description the participants understood that the study was completely voluntary. Additionally, participants were made aware that their grades were in no way affected by their participation.

Students who agreed to participate had their identity and any identifiable information kept confidential. ID numbers were used on all forms and records in this study to ensure confidentiality. I separated all participants’ code numbers from the consent forms, which were then put into separate files. These files were locked in my office and were only accessible to me. I did not share any identifiable information obtained from the participants with others or in publication. However, during this study I did share collected data with my dissertation committee members. I shared collected data with committee members, only after they had adhered to confidentiality by signing a
pledge (Appendix N). Students who agreed to participate were asked to sign a consent form.

By agreeing to participate, participants granted me access to required coursework which was used for data collection. Twenty-two students agreed to participate in the study. Students then completed the Self-Reflection and Insight Scale, which was a required component, during the initial orientation meeting. However, if some students would not have agreed to participate, they would have still had to complete the requirements for the course, as the data sources were embedded in the orientation meeting. Additionally, I would not have collected data from the participants who did not agree to participate for the purposes of this research project.

Post Practicum Procedures

Upon the conclusion of the practicum course, all participants attended a post practicum meeting (i.e., second to last week of the spring 2014 academic calendar; April 30th), which was a required component of the course. I thanked the students for their participation in the study and then issued the Self-Reflection and Insight Scale. Upon completion of the Self-Reflection and Insight Scale, the students also were asked to respond to three open ended post practicum reflection statements (Appendix K). However, if there were students who did not agree to participate, they would have still completed the requirements for the practicum course without penalty or prejudice as the assignments were embedded in the final meeting. Additionally, I would have not collected data from the participants who do not agree to participate for the purposes of this research project.
In conjunction with the traditional practicum course curriculum, the students in the spring 2014 semester participated in an online structured reflective journaling intervention. The purpose of this intervention was to facilitate reflective practice in coach education practicum students using online structured prompts presented through Blackboard.

Blackboard is a student services technology company designed to connect students and educators. One purpose of Blackboard is to facilitate accessibility to information in students’ courses. The university where this study took place subscribes to Blackboard and is used throughout the institution. The assigned instructor of the course sets up a Blackboard shell and access is only permitted to students and the instructor registered in that course. For the purpose of this research project, I was added to the practicum course on Blackboard with “instructor only” access to facilitate the construction of the content that pertains to the intervention.

One aspect of the practicum course requires students to use Blackboard to submit assignments. Throughout 12 weeks of the semester, I presented structured prompts (Appendix J) to facilitate students’ reflections. Students were asked to submit their online reflection responses to these prompts on Blackboard (Appendix F). The structured prompts began being presented during the second week of the spring academic calendar (i.e., January 22, 2014) and concluded on the second to last week of the spring academic calendar (i.e., April 30, 2014). Face validity was established by piloting the structured prompts with a selection of practicum students that had already completed the course in a previous semester and who were not potential participants for the study. I also obtained
feedback on the prompts from expert coach education instructors. The purpose of this pilot testing and establishing face validity was to ensure that the correct interpretation of the prompt was perceived and understood by the prospective participants (Hardesty & Bearden, 2004; Holden, 2010).

Each student was asked to submit a weekly reflection of his/her personal coaching practices and experiences in response to the structured prompt. Guidelines to facilitate student reflections were presented on Blackboard each week (Appendix G), which was also implemented into the course’s practicum packet (Appendix E). Students’ online reflection responses to the structured prompt were not viewed by any other student. The instructor and I were the only individuals viewing the responses. Each of the structured prompts were presented on Sunday of the designated week. Students’ online reflection responses were due on Saturday by midnight of that week on Blackboard in an assignment drop box. An email was sent to the students each week, informing them that the prompt was presented on Blackboard. Many of the prompts entailed attending to a dilemma, which was first addressed in the second prompt. In order to facilitate the students understanding for what a coaching dilemma may consist of, I included an example of a reflection response in the presentation of the second prompt (Appendix O). Students received five points towards their grade for providing a response to each prompt. Zero points were issued to students who failed to submit a response. Furthermore, the students were not notified of the score applied to their grade each week until the end of the semester. The student responses were examined weekly in the case that more structure was needed, if the responses were collectively inadequate for data collection. For example, if after the first two weeks of journaling students had
collectively provided online reflection responses that were less than five sentences, a 120
word minimum would have been added to the course requirements.

*Justification for Prompts*

According to Schön (1983, 1987), reflective journal writing, and therefore
reflection on action (i.e., outside of the action present), is a way for practitioners to
organize their implicit mental processes in examining encountered dilemmas. Through
reflective journaling, students are able to make connections between theory taught in
university coursework (i.e., technical rationality) and professional practice in the field
during practicum (Lashley & Wittstadt, 1993). More specifically, other research has
demonstrated that reflective journaling facilitates both reflection in and on action to
promote students’ transformation of technical rationality into idiosyncratic forms of
professional knowledge (Bain et al., 2002; Greiman & Covington, 2007; Richardson &
Maltby, 1995). Therefore, by drawing upon the theory of reflective practice (Schön,
1983, 1987), reflective journaling can provide students with the opportunity to develop
professional knowledge and generate a more in-depth understanding of their personal
philosophies by building upon preexisting knowledge (Risko et al., 2002).

The proposed online structured reflective prompts were constructed through the
lens of Schön (1983, 1987) to induce students’ reflective skills and thus develop
professional knowledge. The spiral of a reflective conversation (i.e., appreciation, action,
appreciation) during reflection in and on action is bound by the coach’s role frame (i.e.,
philosophical beliefs, ideas, values that frame a dilemma). However, role frames can limit
reflection because students will only implicitly attend to dilemmas within their role frame
(Schön, 1983). In a progression to enhance students’ professional knowledge, the first
five prompts are intended to bring explicitness to the students’ role frame (Gilbert & Trudel, 2004b). These first five prompts also create a foundation for reflective conversations by eliciting students to recognize their current role frame, and also identify dilemmas (i.e., appreciation) that occur during their practicum. The latter seven prompts contain a spiral of appreciation (i.e., dilemma identification) and action (strategy generation and experimentation) during reflection on action. Subsequent role frame analyses are presented to prompt the students to reexamine their current beliefs or ideas. These latter role frame analysis prompts also enhance reflective practice by, as Schön (1983, 1987) would suggest, reframing students’ views and thinking beyond the scope of their own preconceived notions by examining others’ perceptions (Schön, 1983). Collectively, the prompts do not engage the latter components of reflective conversation (i.e., re-appreciation) due to the possibility that some students may fail to re-appreciate a dilemma during their practicum. Additionally, in many of the prompts I have suggested reflection in action to occur, as indicated in Appendix J. By bringing explicitness to dilemmas through the prompts, reflection in action is suggested to later occur as the students experience dilemmas in the action present. The prompts were designed with the intent of progressing reflective practice in order to develop professional knowledge, where students are able to reframe their perspectives, identify dilemmas, and generate strategies to overcome these dilemmas. In order to further examine how and why students develop professional knowledge through the lens of Schön, data were collected through quantitative and qualitative data sources.
Quantitative Data Collection

A general information form was presented to obtain basic demographic participant information at the orientation meeting (Appendix H). I used this information to gain insight on the students used in the study. Furthermore, I used two primary instruments to collect quantitative data measuring the overarching construct of reflection: (1) Self-Reflection and Insight Scale (SRIS) and (2) levels of reflection rubric.

Self-Reflection and Insight Scale

I collected quantitative data via the Self-Reflection and Insight Scale (SRIS). The SRIS is an advanced measure of the Private Consciousness Scale (PrSCS) (Fenigstein et al., 1975). The scale consists of 20 items that emphasize two factors: self-reflection (SRIS-SR) and insight (SRIS-IN). Self-reflection measures “the inspection and evaluation of one’s own thoughts, feelings and behaviors”, while insight assesses “the clarity of understanding one’s thoughts, feelings, and behaviors” (Grant et al., 2002, p. 821). SRIS-SR and SRIS-IN are key factors in the self-regulating processes influencing behavior change. SRIS-SR can be further subdivided into engagement in self-reflection (SRIS-SRE) and need for self-reflection (SRIS-SRN). SRIS-SRE is characterized by the item, “I frequently take time to reflect on my feelings,” while SRIS-SRN is characterized by the item, “It is important for me to evaluate the things that I do.” SRIS-IN is characterized by the item, “I usually know why I feel the way I do.” The SRIS’s items are individually rated on a six point Likert scale (i.e., 1 = disagree strongly, 2 = disagree, 3 = disagree slightly, 4 = agree slightly, 5 = agree, 6 = agree strongly) (Grant et al., 2002).

While assembling the SRIS, Grant et al. (2002) performed a principal components analysis with a varimax rotation to determine factor loadings. In a different examination
which was presented in the same research article, the researchers also conducted the same procedure to confirm the two factors. Alpha coefficients for SRIS-SR were .91 and .87 for SRIS-IN (Grant et al., 2002). In other research, respectively similar alpha coefficients for SRIS-SR and SRIS-IN were calculated (i.e., SRIS-SR, .92 and SRIS-IN, .83) (Haga et al., 2009; Wyatt & Machado, 2012). A seven week test-retest reliability of SRIS-SR has been found to produce alpha levels of .77 and .78 for SRIS-IN (Grant et al., 2002).

Acceptable Cronbach’s alpha values assessing the reliability of the items range from .7 to .8 (Kline, 1999). Evidence for convergent validity of the SRIS has been suggested through the demonstration of SRIS-SR positively correlating with the Private Self-Consciousness subscale and with measures of anxiety and stress. Furthermore, SRIS-IN is negatively correlated with subscales of Private Self-Consciousness along with depression, anxiety, and stress. Finally, SRIS-SR and SRIS-IN showed a correlation with each other, which provides evidence for discriminate validity of the scale (Grant et al., 2002). Acceptable correlation levels are categorized as: small; \( r = .10 \), medium; \( r = .3 \), and large; \( r = .5 \) (Cohen, 1988, 1992). Demonstrating convergent and discriminant evidence of a measurement scale have been advocated as a viable approach to suggest construct validation (Messick, 1995). Data from the SRIS was collected during the pre (i.e., orientation meeting) and post (i.e., final meeting) practicum meetings; however, I also used students’ practical papers as quantitative data.

Levels of Reflection Rubric

Two practical papers were assigned to the students during the semester (i.e., pre due on February 19\(^{th}\) and post due on April 16\(^{th}\)) that relate to the participants’ coaching experiences and the National Standards for Sports Coaches (NASPE, 2006). I used the
former paper to collect baseline data, while the latter paper was used as a follow-up measure. I used a levels of reflection rubric to provide a score for each of the participants’ baseline and follow up measures (Appendix L).

In order to provide a score of each of the student’s practical papers, I drew upon Powell’s (1989) levels of reflection rubric. However, I should note that this rubric was derived from Mezirow’s (1981) reflectivity rubric (Mezirow, 1981; Powell, 1989). Mezirow’s (1981) original reflection rubric is a seven level of reflectivity that is presented in ascending order, where level one implies the lowest form of reflectivity, while level seven suggests the highest form of reflectivity. The former four levels of reflectivity are referred to as “consciousness”, while the latter three levels denote “critical consciousness” (Mezirow, 1981, p. 12). Mezirow’s seven levels of reflectivity were slightly modified by Powell (1989) to examine whether or not reflection-in action (Schön, 1983) was present in registered nurses. In Powell’s (1989) adopted rubric, Mezirow’s (1981) seven levels of reflectivity were reduced to six in order to improve upon the ambiguity in levels five and six. Powell’s (1989) adopted rubric, which includes six levels of reflection in ascending order are (1) reflectivity, (2) affective reflectivity, (3) discriminant reflectivity, (4) judgmental reflectivity, (5) conceptual reflectivity, and (6) theoretical reflectivity. Powell’s (1989) adopted rubric characterizes reflectivity as, “awareness, observation, and description” (p. 827). Affective reflectivity is characterized as, “awareness of feelings” (p. 827). Discriminant reflectivity is described as, “assessment of decision making process, or evaluation of planning or carrying out care” (p. 827). Judgmental reflectivity is categorized as, “being aware of the value judgments and the subjective nature” (p. 827). Conceptual reflectivity is characterized, “as
assessment of whether learning is required to assist decision making” (p. 827). Finally, theoretical reflectivity is defined as “awareness that routine or taken-for-granted practice may not be the complete answer, obvious learning from experience or change in perspective” (Powell, 1989, p. 827).

Research has shown that rubrics have the ability to be a reliable method to assess performance (Hafner & Hafner, 2003; Simon & Forgette-Giroux, 2001). To establish reliability, Moskal and Leydens (2000) suggest the need to demonstrate a consistency of scores by two researchers (Moskal & Leydens, 2000). One method to demonstrate reliability is inter-rater reliability. In order to establish inter-rater reliability of Powell’s (1989) adopted model, I used investigator triangulation (Patton, 2002). Once I obtained the practical papers, an experienced researcher and I independently read, analyzed, and scored a selection of practical papers \(n = 4\) using Powell’s (1989) levels of reflection rubric. I compared each score for consistency among the raters. When the final scores between the experienced researcher and I varied, we met to discuss the differences in scores and revised the rubric until we reached a consensus. This process was repeated with another selection \(n = 4\) of practical papers until 100% consistency of scores was established. Once consistency was demonstrated, I independently scored the remaining practical papers (Moskal & Leydens, 2000; Patton, 2002) before moving forward with quantitative data analysis.

Quantitative Data Analysis

In order to test the hypotheses that participants will demonstrate a significant increase in self-reflection and insight (SRIS; Grant et al., 2002) and level of reflection (reflection rubric; Mezirow, 1981; Powell, 1989), data was first entered into SPSS
version 20. Subsequently, I performed a preliminary data screening to engage an initial analysis and checked for errors. I generated descriptives and frequencies on each of the variables to identify outliers or mistakes in the data recording process. I then analyzed the standard deviations to determine how much variation from the mean existed in each of the variables. Subsequently, I calculated z scores for skewness and kurtosis in each of the variables’ mean scores. I used $z = \pm 3$ as a guideline to identify any outliers and the severity of skewness and kurtosis in each of the variables (Osborne & Overbay, 2004). Question three on the SRIS scale measuring insight was noted as being negatively skewed beyond the guide. In regard to kurtosis, the same question number three and question 15 on the SRIS scale measuring need for reflection displayed leptokurtosis beyond the $z = \pm 3$ guideline. I then generated histograms to further evaluate skewness and kurtosis. The histograms reassured the same concerns with the aforementioned variables. However, because the variables were on a six point scale and all data were entered correctly, no outliers were removed. At this point, I then continued with the quantitative analysis.

I conducted a one-way (time; pre-test and posttest) repeated measures within factors multivariate analysis of variance (MANOVA) to examine the relationship of time (i.e., pre-test and posttest) on self-reflection and insight (SRIS-SRE, SRIS-SRN, SRIS-IN) and levels of reflection (i.e., practical papers rubric score). I used the SRIS and levels of reflection pretest and posttest scores as the within factor. The level of significance was set at $p \leq .05$. I present all data in mean $\pm$ SD. Partial $\eta^2$ was used as a measure of effect size. Partial $\eta^2$ greater than .1379 was considered to be a large effect, partial $\eta^2$ of .0588 was considered a moderate effect size, and partial $\eta^2$ of .0099 was considered a
small effect size (Cohen, 1988). I implemented the students’ mean response rates as the covariate to account for students’ who may not have responded as frequently to the prompts.

In order to determine the sample size needed for the statistical testing, I conducted a preliminary estimates using G*Power 3.1.7 statistical power analysis. G*Power determined that a sample of 22 participants were needed to find a significant difference (i.e., alpha level, .05; beta level,.80; and effect size; partial eta², .1379) when conducting a repeated measures within factors (i.e., pretest and posttest) MANOVA on four measures of intrapersonal knowledge (i.e., Self-Reflection and Insight Scale: SRIS-SRE, SRIS-SRN, SRIS-IN; level of reflection) (Faul, Erdfelder, Lang, & Buchner, 2007). Therefore, prior to conducting the study I was able to determine that the course would have enough potential participants to meet the criteria generated by G*Power.

Qualitative Data Collection

I collected qualitative data via each student’s submitted online reflections to the structured prompts on Blackboard. I collected data on a week by week basis throughout the course and analyzed the data both concurrently and collectively in conclusion of the intervention. In order to address the final research question, I collected data from the student’s written responses to the open ended post practicum reflections. This data was analyzed after the final practicum meeting since the data was collected at that particular time.

Qualitative Data Analysis

In order to address the research questions, I analyzed the online responses to the structured reflective prompts and the written responses to the open ended post practicum
reflections independently from each other. Developed from grounded theory and often used across a variety of qualitative studies, I used the constant comparative method to analyze the collected online responses to the structured reflective prompts and the student written responses to the open ended post practicum reflections (Merriam, 1998; Strauss & Corbin, 1998). I analyzed these data sources during two different time frames. I analyzed all the transcripts of responses to the online structured reflective prompts concurrently as they were submitted on Blackboard. The written post practicum reflection responses were transcribed verbatim into a Microsoft word document and analyzed upon conclusion of the online structured reflective journaling intervention using the same method of analysis.

I initiated data analysis by collecting the students’ responses and then subsequently uploading them into QSR NVivo qualitative data analysis software version 10. Using a similar method of analysis described by Patton (2002), I analyzed the data line by line in both transcripts (i.e., student responses to structure prompts; post practicum reflection responses), while documenting notes, comments, and/or meaning units throughout each transcript. Using investigator triangulation, I took the transcriptions to an experienced qualitative researcher to be analyzed further (Patton, 2002). Through peer debriefing, the experienced qualitative researcher probed me as to why I interpreted the data as such (Lincoln & Guba, 1985). Prior to the experienced qualitative researcher’s data analysis needed for peer debriefing, he signed a pledge stating that they would not share any information enclosed in the transcripts with anyone (Appendix N). I collected the transcripts from the experienced researcher upon conclusion of the peer debriefing session and then subsequently continued with my analysis.
In this subsequent analysis, I analyzed the transcripts line by line again to further gain familiarity with the data. I documented notes, comments, and interpretations, while also further editing my preceding notes and comments for clarification (Patton, 2002). Further data analysis procedures involved drawing upon the smallest meaning units of each participant’s reflections to formulate an initial iteration. The second iteration involved grouping related meaning units into a sub-theme. Finally, the third iteration of data analysis comprised of comparing and grouping all subthemes across all of the transcriptions to create themes of participants’ reflections. A code mapping of the analytic themes provides transparency for the three iterations of coding and their origins (Appendix P; Anfara, Brown, & Mangione, 2002) and thus evidence of trustworthiness.

**Trustworthiness**

Demonstrating trustworthiness has been advocated as an essential benchmark for evaluating the quality of qualitative research (Lincoln & Guba, 1985; Patton, 2002). A researcher’s ability to demonstrate dependability, credibility, transferability, and confirmability are key criteria to establishing trustworthiness. Researchers can show dependability by providing a description of the procedures used within a study to ensure that other researchers would be able to obtain similar findings. A researcher establishes credibility by demonstrating that the findings and conclusions are believable and accurately describe the phenomenon being studied. Researchers will reveal transferability by describing the research context in such a way that the findings can be transferred to other settings. Finally, confirmability can be demonstrated by providing evidence that the findings of a study are developed from the data and are not shaped by researcher bias. In
In this study, I integrated several procedures to enhance its trustworthiness (Guba, 1981; Lincoln & Guba, 1985).

In order to enhance the trustworthiness of this study, I demonstrated dependability via an audit trail, a code map, and investigator triangulation. An audit trail is a chronological set of records which describes the procedures related to the analysis and collection of data. Throughout this study, I maintained an audit trail to provide an in-depth description of the data collection and analysis procedures (Appendix Q). This audit trail demonstrates how the findings were developed (Patton, 2002). Other procedures to enhance dependability are also demonstrated via the code map (Appendix P), which shows how I construed and categorized the data. Additionally, one method of investigator triangulation is peer debriefing. Through the use of peer debriefing with an experienced qualitative researcher, the data analysis was checked for accuracy (Guba, 1981; Shenton, 2004). The experienced researcher was also able to challenge any of my preconceived interpretations. These procedures ensured that if other researchers conducted an analysis on the data, the same findings as presented in this research would be revealed (Lincoln & Guba, 1985).

I demonstrated credibility in this study through investigator triangulation and my familiarity with the culture of the participants. As mentioned previously, through peer debriefing with the experienced researcher, I was able to ensure that the findings were accurate and representative of the participants’ reflection responses by identifying and mitigating any researcher bias. Furthermore, because of my previous experiences in coaching and educating pre-service coaches, I was familiar with the coaching culture of the participants. Familiarity of the researcher with the culture being studied demonstrates
credibility by having a thorough understanding for the phenomenon being studied (Lincoln & Guba, 1985; Shenton, 2004).

The thick and descriptive findings and the purposive sample used in this study demonstrate how I enhanced this study’s transferability. In order to provide thick and descriptive findings, I quoted from the student’s reflection responses to exhibit obvious evidence for the linkages between the themes, subthemes, and meaning units related to the findings (Guba, 1981; Pollio, Henley, & Thompson, 1997; Shenton, 2004).

Additionally, the purposive sample used in this study also enhances its transferability. In this study, I collected data from students enrolled in a practicum course at a southeastern university, who participated in a reflective practice intervention. I provided an in-depth description of both the sample and the procedures that the students were expected to complete as part of the course. These descriptions demonstrate how this study could be replicated to produce similar findings in other settings.

Finally, I ensured confirmability through the use of peer debriefing and researcher reflexivity. As mentioned previously, I used peer debriefing to challenge my interpretations and also ensure that the findings were derived from the data. This also demonstrated that the themes, subthemes, and meanings units presented in this study’s findings were confirmed by another researcher. Additionally, throughout this study I also maintained a reflective journal to facilitate the organization of my thoughts, ideas, and methodological decisions related to the data collection and analysis procedures of this study. The journal allowed me to confirm emerging patterns in the data and reduce any researcher bias. A reflective journal has been suggested to provide not only documentation for the perspective of the researcher to others, but also allows the
researcher to become aware of their own perspectives and identify potential sources of bias (Mauthner & Doucet, 2003). The aforementioned steps authenticate the rigor of the analysis and provides evidence for the trustworthiness of this study (Patton, 2002).
CHAPTER IV

THE EFFICACY OF REFLECTIVE PRACTICE AND COACH EDUCATION ON INTRAPERSONAL KNOWLEDGE IN THE HIGHER EDUCATION SETTING

Abstract

The purpose of this study was to examine the effect of a higher education coach preparation practicum course, which used a set of online reflective journaling (ORJ) prompts guided by Schön’s (1983, 1987) theory of reflective practice, on intrapersonal knowledge. Nineteen coaching majors (12 male, 7 female; \( M = 24.0 \) years, \( SD = 4.11 \)) enrolled in a practicum course at a southern United States institution participated in this study. The participants self-selected sites spanning multiple coaching contexts at the collegiate or high school level. We collected data from the Self-Reflection and Insight Scale (i.e., SRIS-SRE; engagement in self-reflection, SRIS-SRN; need for self-reflection, SRIS-IN; insight; Grant et al., 2002) and Powell’s (1989) levels of reflection rubric to assess students’ intrapersonal knowledge. The results revealed that time did not significantly influence SRIS-SRE (\( p = .09 \)), SRIS-SRN (\( p = .96 \)), and SRIS-IN (\( p = .95 \)). However, time did have a significant influence on levels of reflection (\( p < .01 \)). The results suggest that ORJ, used in conjunction with a coach education practicum course, can have a positive influence on one variable of students’ intrapersonal knowledge. We discuss the efficacy of the course on students’ intrapersonal knowledge in relation to existing research.

Key words: coach education, reflective practice, intrapersonal knowledge, technology, higher education
The Efficacy of Reflective Practice and Coach Education on Intrapersonal Knowledge in the Higher Education Setting

Coach education researchers have used a multitude of learning theories from both cognitivist and constructivist perspectives to explain how and why coaches learn (Gilbert & Trudel, 2004a). Despite the breadth of learning theories used in these studies, researchers have generally agreed upon the importance of experience, reflection, or social interactions to facilitate coach learning. Consequently, researchers have provided theoretically grounded suggestions for coach education curricula on how to construct meaningful learning experiences. Yet, coaching research has failed to provide a theoretical explanation of how and why learning occurs within higher education coach preparation curricula. Accordingly, limited research has provided evidence for the efficacy of a theoretically informed curriculum on coach learning (Knowles, Gilbourn, Borrie, & Nevill, 2001). The disjuncture between research on how coaches learn and how college students learn to coach has likely been caused by research on the former exclusively studying experienced, practicing coaches. To address this gap, a theoretical explanation of how and why coaching education students learn would provide coach educators with ways to enhance coach learning (Cushion & Nelson, 2013; Trudel, Culver, & Werthner, 2013).

Schön’s (1983, 1987) theory of reflective practice seems to go beyond the other constructivist and cognitivist perspectives by further explaining learning through an idiosyncratic cycle of reflection within problem sets. The theory of reflective practice postulates that learning occurs by experimenting with generated strategies used to overcome problems, which builds the individual’s domain specific knowledge necessary
for professional activity (Schön, 1983, 1987). The foundation of reflection provides a framework to explain meaningful knowledge constructions that are idiosyncratic to each coach despite the multitude of sporting contexts in which they may partake in. For this reason, reflective practice (Schön, 1983, 1987) has been suggested as being the best fit to explain how coaches learn (Gilbert & Trudel, 1999). The theoretical concepts of reflective practice are explained through role frames, reflective conversation, reflection in action, and reflection on action (Schön, 1983, 1987).

Role frames can be thought of as the practitioner’s theory of practice framed by their previous experiences, knowledge, and other influences. Role frames guide the practitioner’s attention to and interpretation of certain dilemmas, while also influencing the practitioner’s repertoire or professional knowledge used to overcome the dilemmas.

Reflective conversation is a revolving spiral of appreciation (i.e., problem setting), action (i.e., experimentation), and re-appreciation (i.e., problem setting). Appreciation, which is bound by the practitioner’s role frame, is the practitioner’s identification of a dilemma (i.e., problem setting). Action, described by Schön (1983, 1987), involves generating strategies and actively testing out the strategy before either re-experiencing (i.e., re-appreciation) or overcoming the dilemma. A practitioner may engage in multiple cycles of a reflective conversation before producing a satisfactory outcome. A reflective conversation can occur at varying times, which causes a practitioner to either engage in reflection in action or on action.

Reflection in action occurs when practitioners engage in reflective conversation while in the midst of action. Schön (1983, 1987) refers to the confinement of reflection in action as being bound by the action present, which is the time frame in which the
practitioner’s actions can still make a difference in the situation. By comparison, reflection on action is the process of a reflective conversation that takes place outside of the action present and does not have an immediate impact on the dilemma. The spiral of reflective conversation during reflection in and on action provides insight on understanding how practitioners build upon professional knowledge through reflective practice.

Researchers have provided evidence that coaches learn through reflection in practice (Gilbert & Trudel, 2001; Gilbert & Trudel, 2005). Conversely, researchers have also suggested that not all coaches may reflect or know how to reflect effectively, therefore inhibiting their ability to develop knowledge through experience (Gilbert & Trudel, 2001; Gilbert & Trudel, 2004b). Thus, advancing the ability to reflect would provide greater opportunities for learning in professional practice (Schön, 1983). Schön (1983, 1987) also argues that educating a reflective practitioner (i.e., sport coach) entails consistent nurturing and reflective practice and is something that needs to be implemented throughout an educational curriculum to enhance professional practice over time. Moreover, the National Association for Sport and Physical Education (NASPE) Standards for Quality Coaching (i.e., skills and knowledge that a sports coach should possess) states that reflective practice is a skill that a coach should possess and improve (NASPE, 2006). It would appear, then, that NASPE accredited curricula incorporate some degree of reflective practice training into their curriculum.

In spite of the importance of reflection to enhance coach learning, it is surprising that a paucity of research exists on how and why coaching students in higher education curriculums learn to reflect (Knowles et al., 2001). Despite the assumption that coach
education curricula engage students in reflective practice training, research has revealed that reflective practice in coach education curricula are often non-existent (Knowles et al., 2005). Recently, coach education stakeholders have suggested a need for educators to implement a theoretically grounded reflective practice (Schön, 1983, 1987) framework to their curriculum (Cushion & Nelson, 2013). While some educators have made an effort to underpin their curriculum with reflective practice (Nelson & Cushion, 2006), researchers have failed to theoretically explore how and why learning occurs in these curricula. Accordingly, there is limited research that has provided evidence for the efficacy of a coach education reflective practice (Schön, 1983, 1987) curriculum on learning (Knowles et al., 2001). Knowles et al. (2001) have been able to provide some evidence to support the growth of reflective skills in eight coach education students. Yet, coach educators have continued to call for additional evidence on the effect of a theoretically grounded reflective practice (Schön, 1983, 1987) curriculum in order to better explain how and why coaches learn (Cushion & Nelson, 2013). As coaching degrees in higher education continue to grow around the world (Campbell, 1993), there is great importance to better understand how to develop coaches’ reflective practice in this setting.

Research that has examined the development of reflective practice in higher education, such as that in teacher education, has advocated reflective journaling as the most influential approach for developing reflective skills (Bain, Mills, Ballantyne, & Packer, 2002; Pedro, 2005; Risko, Roskos, & Vukelic, 2002). Recently, in conjunction with the technological upsurge in higher education, online reflective journaling (ORJ) has garnered attention from educators because of the instantaneous opportunity for students to express thoughts and ideas (Chretien, Goldman, & Faselis, 2008; Stiler & Philleo,
The online journaling approach has also shown to yield greater gains in student learning and understanding of professional practice when compared to more traditional journaling techniques (i.e., handwritten; Gleaves, Walker, & Grey, 2008). Because reflective practice has been suggested as a skill that should not be formally taught through a direct instruction approach (Baird, Fensham, & Gunstone, 1991; Ross, 1989), educators have explored the use of journaling prompts to elicit positive gains in reflection (Bain et al., 2002; Clark, 1994; Cohen-Sayag & Fischl, 2012). Although there is a paucity of research exploring the efficacy of reflective journaling in coaching students (Knowles et al., 2001), its use could be a viable option to develop coaches’ intrapersonal knowledge in a higher education setting (Côté & Gilbert, 2009).

Intrapersonal coaching knowledge has been suggested to be a crucial component for effective coaching and has been defined as the “understanding of oneself and the ability for introspection and self-reflection” (Côté & Gilbert, 2009, p. 311). Coach researchers have proposed the Self-Reflection and Insight Scale as a valid and reliable way for assessing a coach’s intrapersonal knowledge (Gilbert, Dubina, & Emmett, 2012). Self-reflection and insight are two essential metacognitive factors in the self-regulation processes that underpin behavioral change (Grant, Franklin, & Langford, 2002). These metacognitive factors would be influential for coaches in experimenting with self-generated strategies in order to develop more effective coaching practices (i.e., behaviors) over a career. In addition to the Self-Reflection and Insight Scale, reflection rubrics have been used to measure practitioners’ application of intrapersonal skills into professional practice (Richardson & Maltby, 1995). For example, Powell’s (1989) reflection rubric has been used on nursing students’ journals to determine the degree in which students
learn by reflecting on dilemmas encountered during professional practice (Richardson & Maltby, 1995). Despite the attention the Self-Reflection and Insight Scale and Powell’s (1989) levels of reflection rubric have received by researchers in other fields to study intrapersonal knowledge (Chow, Lam, Leung, Wong, & Chan, 2011; Richardson & Maltby, 1995), there is limited use of these forms of assessment on sports coaches (Knowles et al., 2001).

In summary, the need for this study is three fold in regards to addressing the gaps in coach education research. First, reflective practice is a necessary skill that helps coaches develop knowledge in professional practice (Gilbert & Trudel, 2001), however there is a paucity of theoretically informed research exploring how coaching students learn through reflective practice in the higher education setting (Knowles et al., 2001). Secondly, reflective journaling has been advocated to develop students’ reflective skills in pre-service teachers (Bain et al., 2002), however there is limited research exploring this strategy with pre-service coaches. Thirdly, coaching researchers have suggested the need to provide evidence for the efficacy of a theoretically informed coach education curriculum on coach learning (Cushion & Nelson, 2013). Demonstrating the effect of reflective journal prompting, underpinned by Schön’s (1983, 1987) reflective practice concepts, on coaches’ intrapersonal knowledge would provide a theoretically informed explanation of how coaches learn in a higher education setting. Therefore, the purpose of this study was to understand how coach education practicum students engage in reflective practice. We sought to answer the following research questions:

1. What is the effect of ORJ on coach education students’ reported self-reflection and insight scores from pretest to posttest?
H1: Students who participate in an ORJ will demonstrate a significant increase in reported self-reflection and insight scores measured by the Self-Reflection and Insight Scale (SRIS) from pretest to posttest.

2. What is the effect of ORJ on coach education students’ level of reflection from pretest to posttest?

H2: Students who participate in ORJ will demonstrate a significant increase in level of reflection measured by a reflective writing rubric from pretest to posttest.

Methods

The research presented in this manuscript is part of a larger, mix methods study, which examined coach education practicum students’ reflective practice. In this paper we present the quantitative component of the study, which encompassed a pre-experimental, one group pretest posttest research design. This part of the study examined coach education practicum students’ intrapersonal knowledge before and after an intervention (i.e., ORJ). Therefore, this quantitative component examined the effect of an ORJ intervention on students’ intrapersonal knowledge using data collected from the Self-Reflection and Insight Scale (Grant et al., 2002) and levels of reflection rubric (Mezirow, 1981; Powell, 1989). The following sections address the participants, procedures, data collection and data analysis.

Participants

The participants in this study were a convenient sample of 19 (12 male, 7 female; M = 24.0 years, SD = 4.11) students enrolled in a practicum course at a southeastern United States, research institution. The purpose of this course was to provide students an opportunity to gain 16 weeks of practical coaching experience. As part of the curriculum
at this institution, coach education students are asked to complete two practicum experiences. Thus, the participants in this study were either of junior ($n = 2$) or senior level ($n = 17$) standing and were enrolled in either their first ($n = 8$) or second ($n = 11$) practicum course. The participants were African American ($n = 8$) and Caucasian ($n = 11$) and averaged .58 years ($SD = 1.1$) of coaching experience. Eighteen of the participants had formally competed at the high school ($n = 8$), collegiate ($n = 9$), and semi-professional level ($n = 2$) in the sport they were coaching. The participants site selections were various coaching contexts spanning women’s collegiate basketball ($n = 4$), men’s collegiate basketball ($n = 1$), collegiate softball ($n = 1$), collegiate football ($n = 1$), women’s high school basketball ($n = 1$), high school softball ($n = 1$), high school baseball ($n = 6$), high school football ($n = 1$), and high school track and field ($n = 3$). All procedures were approved by the Institutional Review Board before obtaining participant consent.

Procedures

The sport coaching education major at the university where this study was conducted is a National Council for Accreditation of Coaching Education accredited curriculum where specific requirements are necessary to ensure student fulfillment of their practicum experience. Some of the traditional requirements for the practicum course included: an orientation meeting, monthly time sheets, practical papers, supervisor evaluations, a final report, and a final exit meeting. An ORJ intervention was added to the traditional course requirements for the semester in which this study took place. All procedures were embedded into the requirements for the course.
Preliminary Procedures

As part of the practicum course, students attended an orientation meeting. During this initial orientation meeting, the instructor of the course introduced the primary investigator to the students. The instructor then left the meeting to reduce the possibility of student coercion to participate. The primary investigator proceeded by giving a brief description of the study, which was located on the consent form. From this description the participants understood that the study was voluntary and that by agreeing to participate they would be providing access to their required coursework. Additionally, the primary investigator made it clear that the participants’ grades would in no way be affected by their participation. Students were then told that if they choose not to participate they would still complete the requirements for the course without penalty and their coursework would not be used for data collection. As an incentive, students who chose to participate were entered into a drawing for a 20 dollar gift card. All students enrolled in the course were eligible to participate. All students agreed to participate and were asked to sign a consent form. The students then completed a general information form and the Self-Reflection and Insight Scale, which was a required component of the course.

Students who agreed to participate had their identity and any identifiable information kept confidential. ID numbers were used on all forms and records to ensure confidentiality. The primary investigatory separated all participants’ code numbers from the consent forms, which were then put into separate files. These files were locked in his office and were only accessible to him.
Post Practicum Procedures.

Upon the conclusion of the 16 week practicum course, all participants attended a post practicum meeting, which was a required component of the course. The primary investigator thanked the students for their participation in the study and then issued the Self-Reflection and Insight Scale.

Practicum: Online Reflective Journaling.

In conjunction with the traditional practicum course requirements, the students were asked to submit responses to a set of ORJ prompts. One aspect of the practicum course required students to use Blackboard Learn 9.1, an online learning management system used to submit assignments. Throughout 12 weeks of the semester, structured prompts were presented on Blackboard to facilitate students’ reflections. We drew upon Schön’s (1983, 1987) work on reflective practice to construct each of the prompts as presented in Table 2 and Table 3.

Table 2

Reflective Prompts 1-6

<table>
<thead>
<tr>
<th>Prompt</th>
<th>Reflective Practice</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. During your practicum experience to this point, discuss what has happened that contradicts your prior beliefs? Also discuss what has happened that confirms your prior beliefs?</td>
<td>Role Frame Analysis</td>
</tr>
<tr>
<td>2. Recollect a critical coaching problem or dilemma that has occurred during your most recent practice or game. What happened in the dilemma? Describe the activities that led up to the dilemma. Describe why you think this is a critical coaching problem or dilemma.</td>
<td>Reflection in action/ on action; Appreciation</td>
</tr>
</tbody>
</table>
Table 2 (continued).

<table>
<thead>
<tr>
<th>Prompt</th>
<th>Reflective Practice</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. Describe 3 or 4 of your previous experiences as a coach or as a player that have impacted your current coaching style.</td>
<td>Role Frame Analysis</td>
</tr>
<tr>
<td>4. Evaluate your coaching to this point. Describe what areas you need to improve and what strategies will you apply to overcome these weaknesses?</td>
<td>Role Frame Analysis, Reflection on action; Appreciation</td>
</tr>
<tr>
<td>5. Recollect a critical coaching problem or dilemma that has occurred during your most recent practice or game. Describe what happened and what you were thinking at the time of the dilemma? What feelings guided your response to the dilemma?</td>
<td>Role Frame Analysis, Reflection in action/ on action; Appreciation, Action</td>
</tr>
<tr>
<td>6. Recollect a critical coaching problem or dilemma that has occurred during your most recent practice or game. Describe how you reacted to this dilemma. Describe how you could have reacted differently to this dilemma. Also, describe what you think would have happened if you would have reacted differently.</td>
<td>Role Frame Analysis, Reflection in action/on action; Appreciation, Action</td>
</tr>
</tbody>
</table>

Table 3

*Reflective Prompts 7-12*

<table>
<thead>
<tr>
<th>Prompt</th>
<th>Reflective Practice</th>
</tr>
</thead>
<tbody>
<tr>
<td>7. Describe what you think your athletes would say if someone asked them what your greatest strength was and what your greatest weakness was? Also describe the coaching strategies that your athletes would change in your coaching style.</td>
<td>Role Frame Analysis, Reflection on action; Appreciation, Action</td>
</tr>
<tr>
<td>8. Recollect a critical coaching problem or dilemma that has occurred during your most recent practice or game. Describe what happened and how you might handle this dilemma differently in the future. Also, describe what you think the outcome of that approach would be.</td>
<td>Reflection in/on action; Appreciation, Action</td>
</tr>
</tbody>
</table>
Table 3 (continued).

<table>
<thead>
<tr>
<th>9. Describe and discuss the patterns that you recognize in your coaching. Describe what you think has led you to adopt these patterns. Discuss the strengths and weaknesses of these patterns. Describe what you think other coaches would perceive as your strengths and weaknesses in terms of your coaching behaviors.</th>
<th>Role Frame Analysis, Reflection on action, Appreciation</th>
</tr>
</thead>
<tbody>
<tr>
<td>10. Discuss what has been the most fulfilling and the least fulfilling aspect of your coaching practicum. Also, describe what this suggests about your values as a coach.</td>
<td>Role Frame Analysis; Reflection on action, Appreciation</td>
</tr>
<tr>
<td>11. Recollect a critical coaching problem or dilemma that has occurred during your most recent practice or game. Describe the dilemma and discuss what you learned from the dilemma. Also, describe how another coach could view this dilemma differently.</td>
<td>Role Frame Analysis; Reflection in/on action</td>
</tr>
<tr>
<td>12. Discuss any new coaching strategies that you have employed as a result of reflection. Describe the strengths and weakness of this new strategy and what you need to do to further perfect this coaching practice.</td>
<td>Reflection in/on action; Appreciation, Action, Re-appreciation</td>
</tr>
</tbody>
</table>

We established face validity by pilot testing the structured prompts with a selection of practicum students who had already completed the course in a previous semester and who were not prospective participants for this study. The prompts were also reviewed by three expert coach education instructors. The purpose of this pilot testing and establishing face validity was to ensure that the participants interpreted the prompts correctly (Hardesty & Bearden, 2004; Holden, 2010).

Each week we required students to submit their online reflection responses to the prompts on Blackboard. During the second week of the academic calendar and the second to last week of the academic calendar, when students were required to attend the initial orientation meeting and the final exit meeting, no structured prompts were presented. Students’ online reflection responses to the structured prompt were not viewed by any other student. We presented each of the structured prompts on Sunday of the designated
week. Students’ online reflection responses were due on Saturday by midnight of that week in an assignment drop box on Blackboard. We sent the students an email each week informing them that the prompt had been presented on Blackboard and its corresponding due date. Guidelines to help facilitate students’ reflections were presented on Blackboard each week and are presented in Table 4.

Table 4

*Guidelines to Facilitate Reflection*

<table>
<thead>
<tr>
<th>Students should:</th>
</tr>
</thead>
</table>

1. Thoroughly read each prompt.
2. Reflect upon each prompt.
3. Thoroughly respond to ALL of the components within each prompt.
5. Provide responses that draw conclusions relevant to their own coaching experiences.
6. Provide responses that connect coursework and theory to their coaching experiences.
7. Provide responses that demonstrate reasoning for new ideas.
8. Read each reflection response out loud to themselves to proofread their response before submitting.

Many of the prompts entailed attending to a coaching dilemma. In order to facilitate the students’ understanding of what a coaching dilemma may consist of, we presented an example of a reflection response for only the second prompt. Students received five points towards their grade for providing a response to each prompt. Zero points were issued to students who failed to submit a response. Additionally, there was no instructor feedback provided to the students to control for any confounding effect of the feedback on the students’ reflections. The students’ depth of responses (i.e., answered all components of the prompt, did not answer all components of the prompt, did not
respond), word counts, number of grammatical errors, and the number of times the student used the prompts’ language in each response are provided in Table 5.

Table 5

Participant Reflection Responses

<table>
<thead>
<tr>
<th>Participant</th>
<th>AF</th>
<th>AP</th>
<th>NR</th>
<th>WC</th>
<th>GE</th>
<th>ULP</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>7</td>
<td>3</td>
<td>231.33 ± 145.23</td>
<td>1.56 ± .88</td>
<td>1.11 ± .93</td>
</tr>
<tr>
<td>2</td>
<td>8</td>
<td>3</td>
<td>1</td>
<td>204.63 ± 89.22</td>
<td>1.27 ± 1.27</td>
<td>2.27 ± 1.19</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>161.88 ± 72.46</td>
<td>1.50 ± .75</td>
<td>1 ± 1.07</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>8</td>
<td>3</td>
<td>97 ± 46.65</td>
<td>.33 ± .5</td>
<td>1.00 ± 1.00</td>
</tr>
<tr>
<td>5</td>
<td>4</td>
<td>6</td>
<td>2</td>
<td>218.70 ± 89.54</td>
<td>.9 ± 1.19</td>
<td>1.00 ± .82</td>
</tr>
<tr>
<td>6</td>
<td>7</td>
<td>0</td>
<td>5</td>
<td>213.57 ± 43.03</td>
<td>1.14 ± 1.07</td>
<td>1.5 ± 1.13</td>
</tr>
<tr>
<td>7</td>
<td>7</td>
<td>5</td>
<td>0</td>
<td>270.5 ± 137.36</td>
<td>1.83 ± 1.47</td>
<td>.66 ± .78</td>
</tr>
<tr>
<td>8</td>
<td>6</td>
<td>4</td>
<td>2</td>
<td>246.20 ± 96.54</td>
<td>.90 ± .99</td>
<td>2.00 ± 1.15</td>
</tr>
<tr>
<td>9</td>
<td>11</td>
<td>1</td>
<td>0</td>
<td>261.75 ± 35.36</td>
<td>1.50 ± 1.00</td>
<td>2.33 ± 1.15</td>
</tr>
<tr>
<td>10</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>183.56 ± 65.09</td>
<td>1.00 ± .71</td>
<td>1.77 ± 1.09</td>
</tr>
<tr>
<td>11</td>
<td>3</td>
<td>7</td>
<td>2</td>
<td>114.70 ± 45.61</td>
<td>1.40 ± .84</td>
<td>1.00 ± .67</td>
</tr>
<tr>
<td>12</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>193.85 ± 62.22</td>
<td>3.42 ± 1.99</td>
<td>2.14 ± 1.95</td>
</tr>
<tr>
<td>13</td>
<td>5</td>
<td>3</td>
<td>4</td>
<td>247.75 ± 18.22</td>
<td>.63 ± .92</td>
<td>2.25 ± 1.98</td>
</tr>
<tr>
<td>14</td>
<td>4</td>
<td>5</td>
<td>3</td>
<td>326.89 ± 103.55</td>
<td>1.67 ± 1.87</td>
<td>1.00 ± 1.00</td>
</tr>
<tr>
<td>15</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>148.00 ± 30.74</td>
<td>1.29 ± 1.11</td>
<td>1.14 ± .90</td>
</tr>
<tr>
<td>16</td>
<td>3</td>
<td>2</td>
<td>7</td>
<td>129.00 ± 33.35</td>
<td>1.20 ± .84</td>
<td>1.00 ± 1.00</td>
</tr>
<tr>
<td>17</td>
<td>6</td>
<td>2</td>
<td>4</td>
<td>272.25 ± 87.36</td>
<td>1.13 ± .99</td>
<td>1.00 ± 1.00</td>
</tr>
<tr>
<td>18</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>158.86 ± 55.00</td>
<td>.75 ± 1.16</td>
<td>.29 ± .49</td>
</tr>
<tr>
<td>19</td>
<td>2</td>
<td>1</td>
<td>9</td>
<td>207.67 ± 25.70</td>
<td>.66 ± .56</td>
<td>.66 ± .58</td>
</tr>
</tbody>
</table>

AF: Answer prompt fully; AP: Answered prompt partially; NR: Did not respond to prompt; WC: Word count response to prompt (M ± SD); GE: Number of grammatical errors in response to prompt (M ± SD); ULP: Number of times the language of the prompt was used in the response (M ± SD)

Data Collection

We used a general information form to obtain basic demographic information. However, we used two primary instruments to collect additional data: (1) Self-Reflection and Insight Scale (SRIS) and a (2) Levels of Reflection Rubric. The SRIS was used to
assess participants’ baseline level and follow-up measures of self-reflection and insight. The SRIS was administered during the initial practicum course orientation meeting and in the final exit meeting. Additionally, the course curriculum required students to complete two practical papers that relate to NASPE’s National Standards for Sports Coaches (2006) at two different points during the semester. We used the level a reflection rubric, on the first submitted practical paper (i.e., due on fifth week of the semester) and the last practical paper (i.e., due on the 12th week of the semester) to assess the baseline and follow up measures of the students’ level of reflection.

Self-reflection and Insight Scale

The SRIS is an advanced measure of the Private Consciousness Scale (PrSCS) (Fenigstein, Scheier, & Buss, 1975). The SRIS consists of twenty items that measure two factors: self-reflection (SRIS-SR) and insight (SRIS-IN). Self-reflection measures “the inspection and evaluation of one’s own thoughts, feelings and behaviors” (Grant et al., 2002, p. 821), while insight assesses “the clarity of understanding one’s thoughts, feelings, and behaviors” (Grant et al., 2002, p. 821). SRIS-SR is further subdivided into engagement in self-reflection (SRIS-SRE) and need for self-reflection (SRIS-SRN). One item that characterizes the SRIS-SRE is, “I frequently take time to reflect on my feelings” (Grant et al., 2002, p. 825), while one item that characterizes SRIS-SRN is, “It is important for me to evaluate the things that I do” (Grant et al., 2002, p. 825). One item that characterizes SRIS-IN is, “I usually know why I feel the way I do” (Grant et al., 2002, p. 825). The SRIS’s items are individually rated on a six point Likert scale (i.e., 1 = disagree strongly, 2 = disagree, 3 = disagree slightly, 4 = agree slightly, 5 = agree, 6 = agree strongly) (Grant et al., 2002).
While assembling the SRIS, Grant et al. (2002) performed a principal components analysis with a varimax rotation to determine factor loadings. Alpha coefficients for SRIS-SR were .91 and .87 for SRIS-IN (Grant et al., 2002). In other research, respectively similar alpha coefficients for SRIS-SR (i.e., SRIS-SR, .92) and SRIS-IN (i.e., SRIS-IN, .83) were calculated (Haga, Kraft, & Corby, 2009; Wyatt & Machado, 2012). A seven week test-retest reliability of SRIS-SR produced alpha levels of .77 and .78 for SRIS-IN (Grant et al., 2002). Acceptable values for Cronbach’s alpha to assess reliability range from .7 to .8 (Kline, 1999). Other research has provided support and validation of the SRIS to measure and investigate intrapersonal knowledge (Roberts & Stark, 2008).

Levels of Reflection Rubric.

In order to provide a score for each student’s practical paper, we used Powell’s (1989) rubric presented in Table 6, which was derived from Mezirow’s (1981) levels of reflectivity (Mezirow, 1981; Powell, 1989), to determine the participants’ level of reflection. Mezirow’s (1981) original seven levels of reflectivity are presented in ascending order, where level one implies the lowest form of reflectivity, while level seven is the highest form of reflectivity. The former four levels of reflexivity are referred to as consciousness, while the latter three levels denote critical consciousness (Mezirow, 1981, p. 12). Mezirow’s seven levels of reflectivity were slightly modified by Powell (1989) to examine whether or not reflection in action (Schön, 1983) was present in registered nurses. Powell’s (1989) adopted rubric reduced Mezirow’s (1981) seven levels of reflectivity to six to improve upon the ambiguity in levels five and six.
Powell’s (1989) adopted model has been found to be a viable model to differentiate between levels of reflection (Powell, 1989; Richardson & Maltby, 1995). The model is proposed by Powell to assess nurses’ reflection in action (Schön, 1983) and ability to reflect within professional practice (Powell, 1989). Powell’s adopted model has also been used by Richardson and Maltby (1995) to assess Schön’s concept of reflection-on action in students’ reflective journals (Richardson & Maltby, 1995).

Table 6

Levels of Reflection Rubric

<table>
<thead>
<tr>
<th>Level</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Reflectivity</td>
<td>Illustrates the ability to discuss and describe experiences or observations</td>
</tr>
<tr>
<td>2 Affective Reflectivity</td>
<td>Expresses an awareness to the individual’s own feelings</td>
</tr>
<tr>
<td>3 Discriminant Reflectivity</td>
<td>Demonstrates an assessment of a decision making process, or evaluation of planning or coaching practices</td>
</tr>
<tr>
<td>4 Judgmental Reflectivity</td>
<td>Displays awareness of value judgments (i.e., rightfulness, wrongfulness, or usefulness of something) and the subjective nature of these</td>
</tr>
<tr>
<td>5 Conceptual Reflectivity</td>
<td>Demonstrates an assessment of whether further learning is required or they had learned from their experience</td>
</tr>
<tr>
<td>6 Theoretical Reflectivity</td>
<td>Exhibits an awareness that routine or taken-for-granted practice may not be the complete answer and there is an obvious demonstration of learning or change in perspective</td>
</tr>
</tbody>
</table>

Adopted model from (Mezirow, 1981; Powell, 1989)

Research has shown that rubrics have the ability to be a reliable method to assess performance (Hafner & Hafner, 2003; Simon & Forgette-Giroux, 2001). To establish reliability, Moskal and Leydens (2000) suggest the need to demonstrate a consistency of scores by two researchers (Moskal & Leydens, 2000). One method to demonstrate
reliability is inter-rater reliability. We used investigator triangulation to establish inter-rater reliability of Powell’s (1989) rubric (Patton, 2002). Once the practical papers were obtained, the first and second authors independently read, analyzed, and scored a selection of practical papers \((n = 4)\) using Powell’s (1989) adopted levels of reflection rubric. Each score was compared for consistency among raters. When the final scores between raters varied, we met to discuss the rubric and the differences in scores until we reached a consensus. This process was then repeated with another selection \((n = 4)\) of practical papers to ensure 100% consistency was reached. Once consistency was demonstrated, the first author independently scored the remaining practical papers (Moskal & Leydens, 2000; Patton, 2002).

Data Analysis

In order to determine the effect of the ORJ on students’ self-reflection and insight (SRIS; Grant et al., 2002) and level of reflection (reflection rubric; Mezirow, 1981; Powell, 1989), we first entered the data from 23 students who were enrolled in the course and agreed to participate into SPSS Version 20. Subsequently, through a preliminary data screening we engaged an initial analysis and checked for errors. In the data screening process, we removed four students from the data analysis for the following reasons: \((n = 1)\) student dropped the course, \((n = 1)\) student was engaging in a practicum experience un-related to coaching (i.e., equipment manager), and \((n = 2)\) student did not submit a practical paper. Cronbach’s alpha coefficients were then generated for the pretest and posttest, SRIS sub-constructs. The Cronbach’s alpha for SRIS-SRE items were .69 in pretesting and .74 in posttesting, while SRIS-SRN items were .73 (i.e., pretest) and .84 (i.e., posttest). SRIS-IN items yielded a Cronbach’s alpha of .64 for the pretest and .67
for posttest. We then conducted a one-way (i.e., time; pre-test and posttest) repeated measures within factors multivariate analysis of covariance (MANOVA) to examine the influence of time (i.e., pre-test and posttest) on self-reflection and insight (SRIS-SRE, SRIS-SRN, SRIS-IN) and levels of reflection (i.e., practical papers rubric score). The level of significance was set at $p \leq .05$. All data is presented in mean $\pm SE$. Partial $\eta^2$ was used as a measure of effect size. Partial $\eta^2$ greater than .1379 was considered to be a large effect, partial $\eta^2$ of .0588 was considered moderate, and partial $\eta^2$ of .0099 was considered a small effect size (Cohen, 1988).

Results

As a result of the one group research design, Mauchly’s test of sphericity was not calculated in SPSS Version 20. The multivariate tests are reported using Pillai’s trace, while the univariate test are reported using sphericity assumed. Using Pillai’s trace, there was a significant relationship of time on the four dependent variables measuring intrapersonal knowledge ($V = 0.67$, $F(4, 15) = 7.63$, $p < .01$, partial $\eta^2 = .67$). The follow-up univariate tests on the dependent variables divulged a not significant time effect on SRIS-SRE ($F(1, 18) = 3.02$, $p = .09$, partial $\eta^2 = .14$), SRIS-SRN ($F(1, 18) = 0.00$, $p = .96$, partial $\eta^2 = .00$), and SRIS-IN ($F(1, 18) = 0.00$, $p = .95$, partial $\eta^2 = .00$). However, the univariate test on the levels of reflection rubric revealed a significant time effect ($F(1, 18) = 22.09$, $p < .01$, partial $\eta^2 = .55$). An estimated marginal means plot, which explains the SRIS-SRE, SRIS-SRN, SRIS-SRN, and levels of reflection rubric scores from prettest to posttest can be found in Figure 1.
Figure 1. Estimated marginal means for engagement in self-reflection (SRIS-SRE), need for self-reflection (SRIS-SRN), insight (SRIS-IN), and level of reflection (Rubric) measuring intrapersonal knowledge from pretest to posttest. Error bars denote standard error of the mean.

The students’ levels of reflection rubric scores yielded a 116% increase from pre ($M = 1.58, SE = 0.21, 95\% \text{ CIs} [1.14, 2.01]$) to post ($M = 3.42, SE = 0.42, 95\% \text{ CIs} [2.50, 4.32]$). The participants’ SRIS-SRE scores across time from pre ($M = 4.28, SE = 0.15, 95\% \text{ CIs} [4.00, 4.60]$) to post ($M = 4.64, SE = 0.17, 95\% \text{ CIs} [4.28, 5.00]$) testing demonstrated an 8% increase. However, participants’ SRIS-SRN scores demonstrated lesser increases (0.66%) from pre ($M = 4.58, SE = .14, 95\% \text{ CIs} [4.27, 4.90]$) to posttesting ($M = 4.59, SE = 0.20, 95\% \text{ CIs} [4.17, 5.00]$), while SRIS-IN scores exhibited increases (0.22%) from pretesting ($M = 4.54, SE = 0.12, 95\% \text{ CIs} [4.29, 4.79]$) to posttesting ($M = 4.55, SE = 0.15, 95\% \text{ CIs} [4.22, 4.87]$).
Discussion

The current study provides some evidence that ORJ prompts, used in conjunction with a higher education coach preparation practicum course, can have a positive influence on students’ intrapersonal knowledge. These conclusions were revealed by the follow-up univariate test examining the influence of time on students’ application of reflective skills within their practical papers. Perhaps the students’ improvement in their ability to apply reflective skills resulted from the similar writing assignment required of the students for the practical papers and the reflective journals. Our findings are consistent with existing literature, which suggests that journaling enhances students’ reflective abilities by facilitating the organization of their experiences in their writing beyond simply describing events (Bain et al., 2002; Clark, 1994; Cohen-Sayag & Fischl, 2012).

As offered in Figure 1, there appears to be a trend for differences between the intrapersonal knowledge outcome variables associated with the higher SRIS scores and the lower rubric scores. These differences between variables could be a result of the SRIS requiring students to self-assess their own intrapersonal knowledge, while the rubric relied upon external evaluation. The disconnect between higher levels of self-assessed intrapersonal knowledge and lower levels of externally assessed intrapersonal knowledge could be, in part, because of the sample used in our study. Our study contained higher education coaching preparation students who were previously athletes. Research has shown that athletes and the current generation of higher education students, representative of the sample in our study, possess an inflated self-concept (Elman & McKelvie, 2003; Twenge, Konrath, Foster, Campbell, & Bushman, 2008a; Twenge,
Konrath, Foster, Campbell, & Bushman, 2008b). While we suspect these types of individuals would self-assess themselves at higher levels of SRIS, this idea is further supported by our students’ pretest scores being more representative of posttest scores in the existing educational research (Chow et al., 2011; Grant, 2003). Additional research could explore the differences in intrapersonal knowledge between higher education coach preparation students and the general higher education student population.

While students in our study self-assessed at rather higher levels of SRIS, the only sub-construct within SRIS that showed a trend for an increase in intrapersonal knowledge was the SRIS-SRE. Existing research suggests that once individuals develop the self-reflective processes in a given context, they will then attend more to insight rather than reflection (Feldman Barrett et al., 2001; Grant, 2003; Grant et al., 2002). Our results support these findings, given that our students’ SRIS-IN pretest scores ($M = 4.54, SD = .12$) compared to other research exploring a large body of college students ($N = 489$; SRIS-IN; $M = 3.5, SD = .75$) were much higher (Haga et al., 2009). This could suggest that, given the junior and senior level status of our students, they may have already gained insight as a result of the current curriculum at the time of the pretest. However, given that the students were novice student coaches engaging in a novel coaching experience, the improvement in SRIS-SE over the course of the practicum may provide evidence for the re-emergence of self-reflection in the students’ new coaching practicum context.

Another key finding is that our study provides some support for existing research exploring the use of the SRIS on a small sample of coaches, which has suggested no need to revise the scale for the coaching population (Bertram & Gilbert, 2011). Given the
acceptable reliability indexes for exploratory research (Hair, Black, & Babin, 2010; Kline, 1999), our study would provide some evidence to support the use of SRIS to assess coaches’ intrapersonal knowledge. However, we would still suggest future research explores the scale on a far greater number of coaches and examine the additional variables that could potentially influence scores in the coaching population.

Higher education coach preparation research exploring the use of reflective workshops and journaling during students’ practicum has demonstrated similar results as our study’s in regard to improving students’ reflection rubric scores (Knowles et al., 2001). However, a critical point that adds to the current literature is the idea that the ORJ prompts used in conjunction with the practicum in our study was able to induce similar gains in reflection despite not incorporating the formal reflective practice training workshops. Existing research would seem to support this conclusion, as reflection is not something that must be formally taught, but can be enhanced by structured journal prompting (Baird et al., 1991). Additionally, while a few of the students in our study did reach higher levels of reflection, our results would be consistent with existing research, which suggests that reflection needs to be nurtured over time (Baird et al., 1991; Jensen & Joy, 2005; Knowles et al., 2001). We propose a need to implement ORJ over multiple practicums and throughout the coach education curriculum.

Other educational researchers have explored structured reflective practice curriculums, journal prompting, journaling feedback, reflective collaboration, and experiential learning activities as ways to facilitate students’ reflective processes (Asselin & Fain, 2013; Bain et al., 2002; Chow et al., 2011; Grant, 2003; Spalding & Wilson, 2002). Our study too used multiple strategies through its use of technology and journaling
as a way to connect the instructor with students’ responses to journal prompts during their practicum course. The use of technology in our study would make it rather easy to employ instructor feedback or peer collaboration to the reflective journaling prompts. Existing research has shown that both of these pedagogical strategies enhance students’ reflective skills (Bain et al., 2002; Spalding & Wilson, 2002).

One main limitation of the current study was the exclusive reliance on the SRIS and levels of reflection rubric to assess intrapersonal coaching knowledge. Existing research has provided support that several psychological variables, such as emotional regulating abilities and anxiety, influence SRIS scores (Feldman Barrett et al., 2001; Haga et al., 2009; Harrington & Loffredo, 2010; Silva & Stevens, 2002). While these factors were not controlled for in our study, coaching in general has shown to produce high levels of anxiety in coaches (Chroni, Diakaki, Perkos, Hassandra, & Schoen, 2013; Olusoga, Butt, Hays, & Maynard, 2009). Given the novice sample of coaches’ used in our study, we suspect students to experience some anxiety throughout the practicum. However, because of the timing of the pretest, which was administered before the students engaged the coaching practicum, we may not have accurately captured SRIS scores. Similarly, in regard to the levels of reflection rubric, the assessment of the students’ pretest practical papers may have not been able to expose the students’ preliminary reflective abilities. At the time of the pretest assessment, students may not have gained enough coaching experience to reflect by the fifth week of the course. Further research would need to explore the use of these measures over multiple time points in conjunction with other psychological measures to better understand the variables influencing students’ intrapersonal knowledge during the practicum courses.
Another limitation to this study involves the central issue of causality. Because of the limited sample size, along with the one group pretest posttest research design, we cannot definitively state that the ORJ prompts used in conjunction with the practicum experience induced a positive increase in intrapersonal knowledge. Research exploring how practicing coaches learn through reflection has identified mentors, gaining experience, or simply observing other coaches as factors influencing reflection (Bloom, Durand-Bush, Schinke, & Salmela, 1998; Gould, Krane, Giannini, & Hodge, 1990; Irwin, Hanton, & Kerwin, 2004). However, we do not know the varying levels in which the students engaged the aforementioned facilitators of reflection during their practicum experience. Yet, we do know that reflective journaling does develop students’ reflective skills and provides a way to organize their experiences encountered in field in order to create meaningful learning situations (Bain et al., 2002; Dewey, 1938; Risko et al., 2002; Schön, 1983).

Despite the limitations, this study is the first to provide quantitative evidence for the effect of reflective journaling in a higher education coach preparation practicum course on intrapersonal knowledge. Our results provide a modest response to the calls made by coach education stakeholders suggesting the need to assess the effect of a coach education curriculum (Cushion & Nelson, 2013; Trudel et al., 2013). However, future research could explore the use of the theoretically informed ORJ used in the current study across multiple coaching cohorts at other institutions to better understand the development of intrapersonal coaching knowledge.

This study is also the first to address the use of technology to enhance learning through reflection in the higher education coach preparation setting. The technology
component of the current study provides a response to stakeholders’ suggestions to explore the use of technology to facilitate learning in coach education (Dixon, Lee, & Ghaye, 2013). However, we suggest further research is needed to understand the effects of supplementing the journaling prompts with other technology based instructional strategies, such as videos of students’ coaching practices, on coaches’ intrapersonal knowledge. Furthermore, in order to understand the value of technology based pedagogical strategies in the higher education setting, future research needs to explore the facilitators and barriers from the coach educator’s and students’ perspectives.
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CHAPTER V
REFLECTIVE PRACTICE IN A COACH EDUCATION PRACTICUM: WHAT AND TO WHAT EXTENT COACH EDUCATION STUDENTS REFLECT

Abstract

Coach education curricula that are able to enhance reflective skills should provide a way to improve the quality of coaching. The purpose of this study was to provide a theoretically informed explanation of how 21 coach education practicum students at a large southeastern United States university engage in reflective practice. During the course, students were asked to respond to 12 weekly, online journaling prompts, which were underpinned by Schön’s (1983, 1987) theory of reflective practice. Data were collected via the students’ written responses to the prompts. The findings resulted in 15 themes which were categorized as follows: students’ role frames (e.g., creating a positive environment, performing in a dominating role), students’ self-identified weaknesses (e.g., weaknesses in role frame, weaknesses perceived by others), students’ dilemma identification (e.g., athletes’ underperformance, practicum coach’s underperformance) and students’ responses to dilemmas (e.g., enforcing a dominating role, developing a positive environment, generated strategies) that describe what and to what extent students reflect in their practicum. The findings are discussed in relation to research on how practicing coaches reflect and how students learn through reflection. We also provide implications for future research by considering the influence of the prompts on students and the use of technology.

Key words: reflection, journal, coach education, coach learning, technology
Reflective Practice in a Coach Education Practicum:

What and To What Extent Coach Education Students Reflect

Sports coaching is a multifaceted and dynamic process that requires coaches to use a wide range of knowledge and skills (Cushion et al., 2003). Coach education curricula have been constructed and implemented around the world to provide a way for coaches to develop the knowledge and skills necessary to be an effective coach (Campbell, 1993). Researchers exploring how practicing coaches developed their knowledge have drawn upon a multitude of learning theories to better understand this process (Callary, Werthner, & Trudel, 2011; Côté, Baria, & Russel, 1995; Culver, Trudel, & Werthner, 2009; Gilbert & Trudel, 2001). Reflective practice (Schön, 1983, 1987) is a learning theory that has garnered attention by researchers trying to explain how practicing coaches learn through their experiences in the field (Gilbert & Trudel, 2001; Schön, 1983, 1987). These explorations have provided coach educators with suggestions for how to enhance learning in their curricula (Cushion & Nelson, 2013). While some educators have drawn upon these suggestions (Nelson & Cushion, 2006; Stirling, 2013), a paucity of research has used the theory of reflective practice (Schön, 1983, 1987) to explain how and why higher education coach preparation students learn to coach (Knowles, Gilbourne, Borrie, & Nevill, 2001).

The theory of reflective practice, developed by Donald Schön (1983, 1987), is conceptualized around the idea that individuals build upon knowledge by creating meaning through the active experimentation of idiosyncratically generated strategies used to overcome problems encountered in professional practice. Researchers have used the theory of reflective practice (Schön, 1983, 1987) to better understand how coaches create
practical coaching knowledge (Gilbert & Trudel, 2001). From these explorations, researchers have suggested that reflection is an essential skill that coaches need to possess in order to build upon their current knowledge base (Cassidy, Jones, & Potrac, 2004). However, not all coaches reflect on their coaching practices and often miss the opportunity for meaningful learning experiences (Gilbert & Trudel, 2001; Gilbert & Trudel, 2004). While enhancing reflective skills through a coach education curriculum should provide a way to improve the quality of coaching; however, research suggests that reflective practice in higher education coach preparation curriculums are non-existent (Knowles et al., 2005). Research that can provide theoretical insight on how and why coaching students learn through reflection would hold great promise for coach educators (Cushion & Nelson, 2013; Cushion et al., 2010). In the following sections, we detail Schön’s (1983, 1987) theoretical concepts of reflective practice used to guide this study. We then present related research on how practicing coaches reflect, reflective practice in higher education coach preparation settings, and reflective practice in other disciplines.

Review of Literature

Reflective Practice

Donald Schön (1983, 1987) developed the theory of reflective practice to better understand how practitioners learn by reflecting upon dilemmas encountered during professional practice. Through a cycle of reflection, practitioners make sense of their idiosyncratic experiences as they apply self-generated strategies into practice. In order to explain how practitioners learn, Schön (1983, 1987) developed concepts such as role frames, reflective conversation, reflection in action, and reflection on action.
Schön (1983, 1987) discusses role frames as the practitioner’s personal approach to professional practice, which is constructed by previous experiences and knowledge. The practitioner’s role frame will guide his/her attention to certain dilemmas encountered in the field. Additionally, a practitioner’s role frame influences the professional knowledge used to overcome attended dilemmas. When a practitioner attends to a dilemma, he/she engages in a reflective spiral called a reflective conversation, which consists of appreciation, action, and re-appreciation. Appreciation, which is the attention to a dilemma, is then followed by action. Action involves the practitioner’s development of strategies and active experimentation with these strategies used to overcome the dilemma. The practitioner will then either overcome the dilemma through the successful implementation of a strategy or further re-appreciate the dilemma only to engage in another cycle of reflective conversation until a satisfactory outcome is elicited.

Reflection in action is the practitioner’s engagement in a reflective conversation while involved in the action present. The action present is a period of time when the practitioner’s actions can immediately impact a situation. Conversely, reflection on action is a reflective conversation that occurs outside of the time frame when a practitioner can make an immediate impact on the dilemma (Schön, 1983, 1987).

Reflective Practice in Practicing Coaches

Reflection has been considered an essential skill that all practicing coaches should possess in order to develop effective coaching practices (NASPE, 2006). Research exploring the essential skill of reflection in practicing coaches has found that learning is initiated by the coaches’ personal coaching approach (e.g., role frame) (Gilbert & Trudel, 2001; Nash, Sproule, & Horton, 2008). Practicing coaches’ role frames have been found
to be constructed around coaching practices that focus on discipline and creating a positive environment for athletes. Coaches’ role frames have also shown to consist of developing athletes’ technical, tactical, and life skills (Gilbert & Trudel, 2004). However, research has shown that some coaches are not explicitly aware of their role frame and therefore do not critically analyze their coaching practices (Gilbert & Trudel, 2004; Nash et al., 2008). Despite the implicit nature of one’s approach to coaching, role frames will still guide coaches’ attention to dilemmas and are integral to learning through reflection (Gilbert & Trudel, 2001; Gilbert & Trudel, 2004; Nash & Sproule, 2011).

Research has shown that coaches are restricted to identifying dilemmas within their personal view of coaching (Gilbert & Trudel, 2001; Gilbert & Trudel, 2004b). Researchers suggest this restriction prevents coaches from learning to think differently, and many coaching issues go unattended (Gilbert & Trudel, 2001; Nash & Sproule, 2011). However, some common types of dilemmas that coaches attend to are related to athlete behavior and performance, organizational duties, and parental influences (Gilbert & Trudel, 2001; Gilbert & Trudel, 2004). Once a dilemma has been identified, coaches will then engage the latter components of a reflective conversation (Gilbert & Trudel, 2001).

Gilbert and Trudel, (2001) demonstrated that coaches engage in a reflective conversation during reflection in action (i.e., reflection during the midst of action) and reflection on action (i.e., reflection outside the midst of action), and also what they called retrospective reflection on action (i.e., reflection during the off season). During a reflective conversation, coaches learn by experimenting with self-generated strategies. In the strategy generation process, coaches will draw upon ideas from other coaches,
coaching materials (e.g., books, videos), or pre-existing strategies that they have used in other contexts (Gilbert, Gilbert, & Trudel, 2001; Gilbert & Trudel, 2001). However, coaches most often report drawing upon their own creativity to generate novel strategies to experiment with (Gilbert & Trudel, 2001). At times, coaches have been found to go through many cycles of reflective conversation in order to resolve a dilemma (Gilbert & Trudel, 2001; Irwin, Hanton, & Kerwin, 2004). Yet, many coaches do not fully complete the reflective conversation, leaving many learning opportunities unfulfilled and coaching dilemmas unresolved (Gilbert & Trudel, 2001). This could explain, in part, why stakeholders advocate a need for developing reflective practice in higher education coach preparation curricula.

Reflective Practice in Higher Education Coach Preparation

In higher education, sport coaching curricula present coaching majors with information in sport science (i.e., physiology, sport psychology, biomechanics), tactical, and technical content areas (Cassidy et al., 2004; Knowles et al., 2001). We also know that practicing coaches often cite learning through experience as an influential component of their development (Gould, Krane, Giannini, & Hodge, 1990; Irwin et al., 2004; Wright, Trudel, & Culver, 2007). Therefore, the impact of developing reflective practice in higher education coach preparation students is twofold. Enhancing students’ reflective practice would be a way to connect quality information presented in the higher education coach preparation curriculum with professional practice, only to yield more effective coaching practices. Additionally, improving students’ reflective abilities would be a way to improve upon the quality of coaching by equipping them with the skills necessary to create meaningful learning experiences over the course of their coaching career.
Researchers exploring the learning strategies used within six higher education coach preparation curricula determined that reflective practice is not taught within these programs (Knowles et al., 2005). Conversely, Nelson and Cushion (2006) have demonstrated that other coach education curricula discuss role frames with students, expose them to potential coaching dilemmas, and nurture students’ strategy generating abilities (Nelson & Cushion, 2006). In other research, Knowles et al. (2001) examined the effect of a reflective skills training program on eight college students. This research provided evidence for enhancing students’ reflective skills, while providing educators with strategies, such as practical coaching experience, reflective practice workshops, and journaling to improve reflection (Knowles et al., 2001). Because of the aforementioned research, coach education stakeholders have called for additional research to examine how and why coaches learn to reflect in coach education curricula (Cushion & Nelson, 2013; Trudel et al., 2013). Compared to sports coaching, educational research in other disciplines has provided greater explorations of effective strategies used by educators to cultivate students’ reflective skills (Bain, Mills, Ballantyne, & Packer, 2002; Standal & Moe, 2013).

**Reflective Practice in Higher Education**

The more developed field of teacher education field advocates reflective journaling as the most influential approach to cultivate pre-service teachers’ ability to reflect (Bain et al., 2002; Pedro, 2005; Risko, Roskos, & Vukelich, 2002). Typically, journaling is most often used by educators during the students’ professional experience (i.e., practicum; Bain et al., 2002). During these experiences, educators used journaling prompts to facilitate students’ ability to connect theoretical concepts taught within the
curriculum and professional practice (Bain et al., 2002; Clark, 1994; Cohen-Sayag & Fischl, 2012; Davis, 2006; Risko et al., 2002). One suggested barrier to reflective journaling is pre-service students’ paucity of time to engage in reflective journaling during their professional experiences (Greiman & Covington, 2007; Lee & Loughran, 2000). However, technology based journaling techniques provide students with instantaneous access to their journals and have been used by educators to overcome students’ time constraints (Gleaves, Walker, & Grey, 2008). Accordingly, this type of approach has demonstrated to be more effective in enhancing students’ reflective skills compared to traditional written approaches (Gleaves et al., 2008; Stiler & Philleo, 2003).

In summary, Schön’s (1983, 1987) theoretical concepts have been used by researchers to explain how coaches create meaningful learning experiences in professional practice (Gilbert & Trudel, 2001; Irwin et al., 2004). From these explorations, we know that reflective practice is a desirable skill to develop in higher education coach preparation students (Cushion & Nelson, 2013). However, coaching research has failed to use Schön’s (1983, 1987) theory of reflective practice as a framework to guide any examination of how to develop reflective practice in higher education coach preparation students. Technology based reflective journaling is a strategy used by teacher educators to help develop reflective skills (Bain et al., 2002; Stiler & Philleo, 2003) and could similarly be used to enhance pre-service coaches’ reflective skills.

The purpose of this paper is to provide a theoretically grounded explanation of how coach education practicum students learn through reflective practice. In order to understand how coaches engage in reflection in the higher education coach preparation
setting, we drew upon Schön’s (1983, 1987) theory of reflective practice to underpin a set of online reflective journaling (ORJ) prompts. This study will seek to answer the following research questions:

1. What do students reflect upon within their online reflective journals?
2. To what extent do students reflect within their online reflective journals?
3. What were the students’ perceptions of the ORJ?

Methods

As part of a larger study on reflective practice in coach education, this manuscript is limited to our qualitative investigation on coach education students’ engagement in reflective practice. In the following section, we detail how the study was conducted and include information on the participants, procedures, data collection, and data analysis.

Participants

The participants in this study were 21 (14 male, 7 female; \( M = 23.9 \) years, \( SD = 3.9 \)) coach education students enrolled in a 16 week practicum course at a large university in the southeastern United States. As part of the curriculum at this university, coach education students were asked to complete two practicum experiences. Therefore, the participants in this study were either of junior (\( n = 2 \)) or senior level (\( n = 19 \)) standing and were enrolled in either their first (\( n = 9 \)) or second (\( n = 12 \)) practicum course. The participants averaged .61 years (\( SD = 1.1 \)) of coaching experience. Twenty-one participants had formally competed (i.e., high school (\( n = 8 \)), collegiate (\( n = 9 \)), or semi-professional level (\( n = 3 \)) in the sport they were coaching. The participants engaged in various coaching contexts spanning women’s collegiate basketball (\( n = 4 \)), men’s collegiate basketball (\( n = 1 \)), collegiate softball (\( n = 1 \)), collegiate football (\( n = 1 \)),
women’s high school basketball \((n = 1)\), high school softball \((n = 1)\), high school baseball \((n = 7)\), high school football \((n = 1)\), and high school track and field \((n = 4)\). Pseudonyms were used throughout the study to protect the participants’ confidentiality.

Procedures

As part of the semester long practicum course, the participants were required to submit practical papers, supervisor evaluations, monthly time sheets, and a final report. These components were traditional requirements for the course. However, for the purpose of this study, ORJ prompts were added as an intervention to the course. After obtaining Institutional Review Board approval, we held an orientation meeting where we asked the students to participate in the study, which granted us access to their required coursework.

The reflective prompts were constructed by the primary investigator who drew upon concepts outlined in Schön’s (1983, 1987) theory of reflective practice. The prompts were pilot tested with a group of practicum students who had completed the practicum course and were not possible participants for the study. Additionally, the prompts were reviewed by three expert coach education instructors. These measures were conducted to ensure that the anticipated interpretation of the prompt would be understood by the participants (Hardesty & Bearden, 2004; Holden, 2010).

Each week for 12 weeks throughout the course, a prompt was presented to the students on Blackboard Learn 9.1, an online learning management system database which is used to submit assignments. The structured prompts are presented in Table 7 and Table 8. Accompanying each prompt was a set of guidelines consisting of: (1) students should thoroughly respond to all of the components within each prompt, (2) provide responses that demonstrate self-analysis of coaching practices, (3) provide responses that draw
conclusions relevant to their coaching experiences, (4) provide responses that connect coursework and theory to their coaching experiences, (5) and provide responses that demonstrate reasoning for new ideas. Additionally, an example of a reflection response related to a coaching dilemma was presented to the students to provide a sample of a thorough reflection response. On Sunday of each week, the primary investigator released a prompt to the students on Blackboard. A response to the prompt was due on Saturday in an assignment drop box on Blackboard. Five points were issued to each student for submitting a response, while zero points were issued for no response. No instructor feedback was issued to the students’ responses.

Table 7
Reflective Prompts 1-6

<table>
<thead>
<tr>
<th>Prompt</th>
<th>Reflective Practice</th>
</tr>
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<tbody>
<tr>
<td>1. During your practicum experience to this point, discuss what has happened that contradicts your prior beliefs? Also, discuss what has happened that confirms your prior beliefs?</td>
<td>Role Frame Analysis</td>
</tr>
<tr>
<td>2. Recollect a critical coaching problem or dilemma that has occurred during your most recent practice or game. What happened in the dilemma? Describe the activities that led up to the dilemma. Describe why you think this is a critical coaching problem or dilemma.</td>
<td>Reflection in action/ on action; Appreciation</td>
</tr>
<tr>
<td>3. Describe 3 or 4 of your previous experiences as a coach or as a player that have impacted your current coaching style.</td>
<td>Role Frame Analysis</td>
</tr>
<tr>
<td>4. Evaluate your coaching to this point. Describe what areas you need to improve and what strategies will you apply to overcome these weaknesses?</td>
<td>Role Frame Analysis, Reflection on action; Appreciation</td>
</tr>
</tbody>
</table>
Table 7 (continued).

5. Recollect a critical coaching problem or dilemma that has occurred during your most recent practice or game. Describe what happened and what you were thinking at the time of the dilemma? What feelings guided your response to the dilemma?  

6. Recollect a critical coaching problem or dilemma that has occurred during your most recent practice or game. Describe how you reacted to this dilemma. Describe how you could have reacted differently to this dilemma. Also, describe what you think would have happened if you would have reacted differently.

Table 8

**Reflective Prompts 7-12**

<table>
<thead>
<tr>
<th>Prompt</th>
<th>Reflective Practice</th>
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<tr>
<td>7. Describe what you think your athletes would say if someone asked them what your greatest strength was and what your greatest weakness was? Also describe the coaching strategies that your athletes would change in your coaching style.</td>
<td>Role Frame Analysis, Reflection on action; Appreciation, Action</td>
</tr>
<tr>
<td>8. Recollect a critical coaching problem or dilemma that has occurred during your most recent practice or game. Describe what happened and how you might handle this dilemma differently in the future. Also, describe what you think the outcome of that approach would be.</td>
<td>Reflection in/on action; Appreciation, Action</td>
</tr>
<tr>
<td>9. Describe and discuss the patterns that you recognize in your coaching. Describe what you think has led you to adopt these patterns. Discuss the strengths and weaknesses of these patterns. Describe what you think other coaches would perceive as your strengths and weaknesses in terms of your coaching behaviors.</td>
<td>Role Frame Analysis, Reflection on action, Appreciation</td>
</tr>
</tbody>
</table>
Table 8 (continued).

10. Discuss what has been the most fulfilling and least fulfilling aspect of your coaching practicum. Also describe what this suggests about your values as a coach.

11. Recollect a critical coaching problem or dilemma that has occurred during your most recent practice or game. Describe the dilemma and discuss what you learned from the dilemma. Also describe how another coach could view this dilemma differently.

12. Discuss any new coaching strategies that you have employed as a result of reflection. Describe the strengths and weakness of this new strategy and what you need to do to further perfect this coaching practice.

Role Frame Analysis; Reflection on action, Appreciation
Role Frame Analysis; Reflection in/on action
Reflection in/on action; Appreciation, Action, Re-appreciation

Data Collection

Data were collected via Blackboard from each student’s submitted online reflection responses. We collected and analyzed the data on a week by week basis throughout the course and then collectively analyzed all of the data at the end of the intervention. The participants’ depth of responses (i.e., answered all components of the prompt, did not answer all components of the prompt, did not respond), word counts, number of grammatical errors, and the number of times the student used the prompts’ language in each response are provided in Table 9.

Table 9

Participant Reflection Responses

<table>
<thead>
<tr>
<th>Pseudonym</th>
<th>AF</th>
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<tbody>
<tr>
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<td>7</td>
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<td>231.33 ± 145.23</td>
<td>1.56 ± .88</td>
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<td>204.63 ± 89.22</td>
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Table 9 (continued).

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<tr>
<th>Name</th>
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<th>Eric</th>
<th>Sam</th>
<th>Phil</th>
<th>Chuck</th>
<th>Mary</th>
<th>Sally</th>
<th>Lindsay</th>
<th>Mark</th>
<th>Chris</th>
<th>Josh</th>
<th>Tom</th>
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<td>M</td>
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<td>218.70 ± 89.54</td>
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<td>270.5 ± 137.36</td>
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<td>261.75 ± 35.36</td>
<td>183.56 ± 65.09</td>
<td>114.70 ± 45.61</td>
<td>193.85 ± 62.22</td>
<td>247.75 ± 18.22</td>
<td>326.89 ± 103.55</td>
<td>148.00 ± 30.74</td>
<td>129.00 ± 33.35</td>
<td>181.29 ± 63.82</td>
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<td>158.86 ± 55.00</td>
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<td>174.80 ± 23.89</td>
</tr>
<tr>
<td>± SD</td>
<td>± 1 ± 0.70</td>
<td>± .33 ± .5</td>
<td>± .9 ± 1.19</td>
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<td>± 1.00 ± .71</td>
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<td>± 1.13 ± .99</td>
<td>± .75 ± 1.16</td>
<td>± .66 ± .56</td>
<td>± 0.00 ± 0.00</td>
</tr>
</tbody>
</table>

AF: Answer prompt fully; AP: Answered prompt partially; NR: Did not respond to prompt; WC: Word count response to each prompt (M ± SD), GE: Number of grammatical errors in response to each prompt (M ± SD), ULP: Number of times the language of the prompt was used in each response (M ± SD)

Data Analysis

Developed from grounded theory and often used across a variety of qualitative studies, we used the constant comparative method to analyze the reflection responses (Merriam, 1998; Strauss & Corbin, 1998). We initiated data analysis by uploading the students’ responses from Blackboard into QSR Nvivo 10, which is a quantitative analysis software system. Each of the participant’s responses was read by the primary investigator within two days of being collected. Using a ground theory data analysis method described by Patton (2002), he analyzed the data line by line, while documenting notes, comments, and meaning units. In a subsequent analysis, the first author again analyzed the
transcripts line by line further documenting notes, comments, and interpretations, while editing preceding notes and comments for clarification (Patton, 2002). Using both QSR Nvivo 10 and Microsoft Excel to manage the analysis, the first author drew upon the smallest meaning units and grouped them based on similarities and differences across the participants’ reflection responses of that given week. To achieve investigator triangulation, during each week of analysis the first author took the transcriptions and initial groupings to an experienced qualitative researcher (i.e., second author) for further analysis (Patton, 2002). The experienced qualitative researcher probed the first author’s interpretations. The first author took notes during each peer debriefing session, which deepened the analysis of students’ responses. The first author then compared and grouped all of the initial meaning units and subthemes created in each of the weekly responses in order to create themes. Finally, the first author then took the themes, subthemes, and initial meaning units to the experienced qualitative researcher for a final debriefing session. A code mapping of the analytic themes was created to provide transparency for how the investigators interpreted the three iterations of coding, thus providing evidence for trustworthiness (Anfara et al., 2002). A table of the code mapping of analytic themes is provided in Appendix P.

Trustworthiness

Demonstrating trustworthiness has been advocated as an essential criterion for evaluating the quality of qualitative research (Lincoln & Guba, 1985; Patton, 2002). A researcher’s ability to demonstrate dependability, credibility, transferability, and confirmability are criteria to establish trustworthiness. In this study, we integrated several procedures to enhance trustworthiness (Guba, 1981; Lincoln & Guba, 1985).
We demonstrated dependability via an audit trail, a code map, and investigator triangulation (Patton, 2002). The code map demonstrates and provides obvious evidence for how we construed and categorized the data. Additionally, through the use of peer debriefing we were able to triangulate the findings. Through peer debriefing, the second author was able to provide insight on the data analysis and strengthened the first author’s initial interpretations (Guba, 1981; Shenton, 2004). The use of investigator triangulation also enhances the credibility and confirmability of this study by mitigating researcher bias and therefore demonstrates that the findings are accurate and representative of the participants’ responses (Lincoln & Guba, 1985; Shenton, 2004). Additionally, we provide descriptive findings of a purposive sample by quoting the students’ reflection responses to exhibit obvious evidence for the linkages between the themes, subthemes, and meaning units to the findings, which enhances this study’s transferability (Guba, 1981; Pollio, Henley, & Thompson, 1997; Shenton, 2004). We did not use the purposive sample in this study to seek statistical generalizability, but rather connote that the findings could be used in other contexts with modifications (i.e., theoretical generalizability). An in-depth description of both the sample and the procedures that the students were expected to complete as part of the course can be provided upon request. The aforementioned steps ensure that researcher bias was mitigated, verifies the rigor of the analysis, and provides evidence for the trustworthiness of the findings (Patton, 2002).

Findings

We present the findings in the following categories: students’ role frames, students’ self-identified weaknesses, students’ identified dilemmas, and students’
responses to dilemmas. The categories represent components embedded within each of the reflective journaling prompts.

**Students’ Role Frame**

The role frame categorization is defined as the students’ coaching approach, style, and belief system, which guide their coaching practices, perceptions of their experiences, and how they view dilemmas. The students’ role frame themes were: *initial perception of coaching, developing athletes, creating a positive environment, and performing in a dominating role as a coach.*

The students’ *initial perception of coaching* role frame theme consisted of their belief that coaching was either easy or challenging. While these views may have changed throughout the practicum, students initially failed to understand the multiple components and complexities of coaching. For example, Tim expresses in his journal, “I guess I never really took into consideration on how time consuming coaching really was. I get here at about 1 [pm] every day, and I leave around 7 [pm] every day.” Other students expected coaching to be challenging and time consuming. For example, Mary stated, “There are plenty of things that confirms my beliefs… I knew that by being a coach you have to live, breathe, and sleep softball.” Students also believed that a coach should develop their athletes.

Students’ role frames on *developing athletes* theme consisted of the students’ belief that if they were able to better understand their athletes, they could develop instructional strategies that would in turn develop athletes’ technical, tactical, and life skills. For example, Chris stated, “I am the type of coach that wants my players to get the technique down…” Some instructional strategies that the students believed would
enhance athletes’ technical skills consisted of: individualizing instruction, being hands on, demonstrating for athletes, and keeping athletes moving. In doing so, students also believed it was important to create a positive environment.

The *creating a positive environment* theme is defined as the students’ belief that it is important that their coaching approach incorporate having fun and showing passion. Additionally, students also believed it was important to develop and nurture positive relationships with their athletes. For example, Sara states, “Putting time and effort into an athlete shows them your dedication, love, and pride for them…This will develop trust between the coach and the player.” By encouraging and being positive, students believed they would be able to develop a trusting and caring relationship with their athletes.

However, students also believed in performing in a dominating role as a coach.

The *performing in a dominating role* theme is defined as the students’ belief that a coach has to be tough and authoritative. For example, Sally stated:

I feel that she [previous coach] did not have strong backbone…she would tell some of the other players to do something and they would look at her like she was crazy. That day I knew I would not be like that. I was offended and then I even started yelling at the girls because it was not a good look for the coach.

Similarly, students also believed that a coach should be aggressive and demanding. However, students still felt that their coaching approach needed to demonstrate fairness. This meant that students did not want to show favoritism by being more demanding and aggressive to some athletes, but not others. Despite their strong coaching belief system, students demonstrated over the course of the practicum they often reflected upon weaknesses in their coaching approach.
Students’ Self-identified Weaknesses

The students’ self-identified weaknesses categorization is defined as the self-identified qualities, features, or coaching practices perceived as being ineffective in fulfilling their ideal role as a coach. Four of the prompts were designed to facilitate students’ self-identification of weaknesses both through their own view and through the lens of how others would interpret their coaching practices. The students’ self-identified weaknesses themes were: weaknesses in role frame, strategies to overcome weaknesses, and weaknesses perceived by others.

The weaknesses in role frame theme is defined as the students’ perceived underperformance in fulfilling their ideal role as a coach. Because students framed their coaching practices around their belief system, when students were unable to improve athletes’ technical and tactical skills they felt as if they were not upholding their ideal role as a coach. Students believed that they were, at times, providing too much feedback and information during their instruction, and therefore underperforming the role of a coach that provides quality instruction. At other times, students believed they were underperforming in a dominating role as a coach. For example, Mary states, “Some of my weaknesses may be … if I keep encouraging them too much they may think I am too ‘soft’ as a coach.” Students also believed they were underperforming when they felt they were too shy or needed to be more authoritative to fulfill their perception that a coach is a dominating figure. However, other students felt like they were over performing their dominance by not being able to control their anger when athletes did not produce immediate results. Upon students’ self-identifying their weaknesses in their role frame, they then generated strategies to overcome these weaknesses.
The *strategies to overcome weaknesses* theme is defined as the practices that were thought to help overcome students’ perceived weaknesses. Students’ expressed that reflection, mentoring, experience, and demonstrating credibility would help them overcome their weaknesses. For example, Lauren discusses one strategy to overcome her inability to perform in a dominating role:

The ways I seriously plan on doing this is to really pay attention to the coaching site mentor and see the different things he does. In this way, I can take bits and pieces and try to put them towards success in overcoming shyness and feeling more confident in coaching.

Students also identified simple strategies when they suggested needing to gain experience or correct a problem such as achieving credibility by displaying authority, confidence, and knowledge. Regardless of the strategies implementation into practice, students also presented weaknesses they perceived other coaches or their athletes would identify.

The *weaknesses perceived by others* theme is defined as the students’ flaws in their coaching approach as they would be perceived by other coaches or their athletes. Students believed that other coaches and their athletes would also say that they were not performing in such a way to improve athletes’ skills. Additionally, students believed that others would suggest they are either failing to uphold dominance or are too dominant as a coach. For example, Mary believed that her athletes thought she is underperforming in a dominating role as a coach, “I think my players would change me to be more aggressive during games and practices. I think they want to see more emotions when they make a mistake.” Other students believed that coaches and athletes would think they were overperforming in the dominating role because they had too high of expectations for athletes
and needed to be more mellow. Because the self-identified weaknesses perceived by other coaches and athletes are consistent with students own perceived flaws, the students to some degree were not able to provide evidence that they were able to gain new perspectives outside of their role frame. However, the students’ role frames were used as a lens for attending to dilemmas in their practicum.

**Students’ Dilemma Identification**

The students’ dilemma identification category is defined as the students’ experienced issues, which were represented in the following theme: *athletes’ underperformance, practicum coach’s underperformance, and disruption in everyday dilemmas*. Five prompts were designed to facilitate the students reflection upon dilemmas experienced in the field.

The *athletes’ underperformance* theme is defined as the students’ perception that the athletes were not performing up to their capability. Students often identified athletes’ underperforming technical, tactical, and psychological skills as dilemmas. For example, Sam discusses his athletes’ inabilities to perform a technical skill correctly:

*We had our first of three scrimmages last Thursday and my guys were making errors. I do not get angry with errors [it is part of the game], but I do have a problem when they start pulling up and having balls go under their glove.*

Students also identified athletes’ underperformance in accepting them as a dominating coach as a coaching dilemma. For example Bill states: “…when I confronted him [athlete], he sarcastically replied and then went right back to slacking off.” Other dilemmas identified by the students incorporated their perception that their athletes lacked motivation.
The practicum coach’s underperformance theme is described as the students’ perception that their practicum coach was not exhibiting quality coaching practices. Students often identified their practicum coach as a dilemma when they did not use appropriate game or practice strategies to enhance athletes’ performance. For example, Cody stated: “The coach has been pushing the players a little too hard and the players are getting worse instead of progressing in their training.” Students also identified their practicum coach as the dilemma when they compromised the team’s morale by showing favoritism towards certain athletes. Other dilemmas identified by the students occurred when the practicum coach got mad at the athletes and demonstrated unprofessional behaviors by treating athletes poorly.

The disruption in everyday routines theme is defined as the identified dilemmas that interrupted the normal flow of coaching. Some of the dilemmas identified by students were so apparent that they would likely be viewed as a coaching problem by all stakeholders or on-lookers. For example, Sally stated:

The most recent dilemma or problem that occurred was at a track meet... After the long jump event, one of the other competitors from the other team got really mad because he lost the event... The other player came up to our guy and was attempting to fight him.

Other dilemmas incorporated idiosyncratic personal issues acting on the student (i.e., student coaches against his brother), which were unlikely to re-occur. Other students identified coaching issues related to environmental factors (i.e., weather) at the practicum site that could occur more frequently. Upon identifying dilemmas throughout the practicum, the students then described how they responded to their coaching problems.
Students’ Responses to Dilemmas

The response to dilemma category is defined as the students’ response to their coaching problems encountered during their practicum. Five prompts were designed to prompt the students into not only describing their responses, but generating strategies to overcome similar dilemmas in the future. Based on the students’ reflections, it was apparent that their responses to the dilemmas were either assisted or unassisted by the practicum coach. Assisted responses to dilemmas were situations where the student described that the practicum coach facilitated the decision making process or the actual response to the problem. Unassisted responses to dilemmas were situations where the student described themselves making the decision and responding to the problem independently. The students’ responses to dilemmas themes were enforcing a dominating role, developing a positive environment, instructional strategies, tactical and administrative planning, and strategy generation for future use.

The enforcing a dominating role theme is defined as the student’ response to a dilemma, which was either assisted or unassisted by the practicum coach, and incorporated disciplining athletes. For example, Phil states, “I quickly jumped on them and told them to lock in and focus or we can make this a little harder. I added ten seconds to their time just to show them that I was serious.” Despite whether the practicum coach assisted in the response to the dilemma, enforcing dominance as a coach often consisted of punishing, confronting, or benching athletes. Instead of enforcing a dominating role as a coach, students also reported responding to dilemmas by developing a positive environment.
The developing a positive environment theme is defined as the student’s response to a dilemma that incorporated building a positive coach-athlete relationship to deal with coaching problems. For example, Chuck states, “Then I talked to some of the kids on the team who really listen to me. I got them to talk to him [other athlete] about the way things worked at our little school…” The students demonstrated in their reflections that the responses to dilemmas were either assisted or unassisted by the practicum coach and were related to being supportive, encouraging, and understand of their athletes. Instead of trying to develop a positive environment in response to dilemmas, students also used various instructional strategies to overcome issues.

The instructional strategy theme is defined as the students’ response that involved using an instructional approach to overcome a dilemma. While at times, these responses too were either assisted or unassisted by the practicum coach, the students described working with athletes individually, implementing new drills, and providing better instruction as ways to overcome problems. For example, Liz states, “I told her what happened is not permanent and everyone has a bad game every once in a while. After the game, I hit ground balls to her and we corrected the problem.” Other dilemmas required students to respond by using tactical and administrative planning strategies.

The tactical and administrative planning theme is defined as the students’ response that involved using in game or out of game strategies to overcome problems. For example, Eric states in response to a dilemma:

...over the past two week we sat out two seniors…These two seniors did not display the skills to remain active in our starting line-up even after so many chances…we have two younger players that are just simply better
and play harder…I think all coaches would decide to play the younger
players.

Although these types of responses were either assisted or unassisted by the practicum
coach, students demonstrated the ability to generate strategies for the future in addition to
describing the initial reaction to the issue.

The generated strategies theme is described as the students’ new ideas that could
be implemented into their coaching practices if a similar dilemma occurs. Students
seemed to generate new strategies that were different than their initial response when
they experienced an unsatisfactory outcome. For example, when students’ initial response
was to develop a positive environment, they often developed a strategy related to
enforcing their dominating role. For example, Tom discusses a new strategy to enforce
his dominance:

   I will make sure that everyone is following the same rules and regulations on the
team from the best to the worst player. Also, I would have thrown her out of
practice so that the other players would understand that I mean business and that I
want them to obey the rules that I have set for the team.

However, instead of developing new ways to enforce their dominating role, students also
discussed how they could have used an instructional strategy or developed a more
positive environment to overcome the issue next time. Yet, when students stated that their
initial response produced a satisfactory outcome they did not feel the need to generate
any new strategies.
Discussion

The following section discusses the findings in relation to existing literature on how practicing coaches learn through reflection and how students learn through reflection in higher education. Additionally, in the following section we address the limitations of the study and provide implications for future research in coaching education.

The findings from our study are consistent with existing research, which suggests that coaches’ personal approaches to coaching (i.e., role frame) consist of developing a positive environment, enforcing a dominating role as a coach (i.e., discipline), and developing athletes’ skills (i.e., technical and life skills) (Gilbert & Trudel, 2004; Nash et al., 2008). While some practicing coaches lack awareness of their coaching approach (Gilbert & Trudel, 2004b), the findings from our study provide evidence to suggest that the use of the online prompts, to some degree, provided a way for students to reflect and to make multiple components of their role frame explicit. However, despite the attempt for the prompts to influence students to critically analyze their role frame by asking them to discuss how others’ (i.e., coaches and athletes) would perceive their coaching approach, the students typically stayed within their own views of coaching.

Another key component to learning through reflection is a reflective conversation, which is how one builds upon their coaching approach by first identifying dilemmas in professional practice (Schön, 1983). Research exploring how practicing coaches learn through reflection has shown that coaches identify similar dilemmas (i.e., athlete underperformance in technical skills, athlete behavior, and team organization) as demonstrated in this study (Gilbert & Trudel, 2001). However, our findings showed that students also perceived their practicum coach and their athletes’ failure to accept them as
a dominating coaching figure as coaching dilemmas. Additionally, at times, the students identified blatantly obvious dilemmas related to the management of athletes and enforcing rules. However, given the students’ lack of coaching experience, these identified issues are probably to be expected and are influential in their development, considering novice educators will too initially focus on managing professional duties and discipline before attending to other aspects of professional practice (Carter, Cushing, Sabers, Stein, & Berlinger, 1988; McCullick, Cumings, & DeMarco, 1998). The reflective journaling prompts used in our study may have been a way for students to organize and learn from these novel experiences so that other issues can become relevant (Dewey, 1938; Schön, 1983).

Gilbert and Trudel (2001) provides evidence that coaches engage in a reflective conversation at different times. Because our study was bound by the 16 week practicum course, we cannot provide evidence that the students will continue reflect outside of their playing season (i.e., retrospective reflection on action). However, our findings do suggest that they did at times reflect in action (i.e., students’ description of response to a dilemma in journal) and on action (i.e., students’ strategy generation in journal outside of practice). During reflection in action, despite the type of dilemma encountered, the students often described how the practicum coach or they themselves responded to the problem by employing a rather generic strategy such as disciplining athletes or simply talking with an athlete individually. These types of responses are consistent with other research, which suggests that novice coaches will resort to traditionally accepted and generic coaching practices to overcome their coaching problems (Nash & Sproule, 2011). Yet, it did appear that as the students gained confidence during their practicum, they were attending to a
greater amount of idiosyncratic dilemmas (i.e., un-assisted by the practicum coach) and implementing different approaches (i.e., providing feedback, length of instruction, working with athletes after games, providing input).

In regards to reflection on action, researchers have suggested that practicing coaches’ reflective conversation will at times will be terminated during strategy generation (Gilbert & Trudel, 2001). However, the prompts used in our study were beneficial in regards to alleviating the potential for a terminated reflective conversation.

A key finding in our study is that the students throughout the practicum seemed to find difficulty in balancing their coaching practices related to creating a positive coach-athlete relationship, yet still maintaining authority and respect as a coach. The prompts provided students with an opportunity to generate strategies and critically think about ways to overcome the aforementioned issue. As the students re-experienced the issue, the prompts subsequently provided students more opportunities to generate new strategies, which suggests they were engaging in several cycles of a reflective conversation. Research has shown that practicing coaches create meaningful learning experiences from engaging in multiple cycles of a reflective conversation (Gilbert & Trudel, 2001). The students in our study seemed to be partaking in a similar process.

Research exploring the use of reflection in the higher education coach preparation setting has incorporated reflective workshops and unstructured journaling techniques as a way to enhance students reflection (Knowles et al., 2001). The findings from the aforementioned study also showed that students needed more structure in their journals, while the workshop became more of a one-on-one council session as the other participating students were at times left unattended (Knowles et al., 2001). The use of
technology in our study, which was able to connect the students with the instructor, could be used to provide one on one reflective practice sessions to students if need be. Additionally, the prompts used in our study provided a way to structure journals to facilitate students’ reflective processes.

The findings of our study provide further evidence for existing research exploring the use of reflective journaling in higher education in other disciplines, suggesting that reflective writing is a way for students to discuss idiosyncratic problems and generate strategies for future use (Bain et al., 2002; Lashley & Wittstadt, 1993). Yet, research suggests that reflective journaling provides opportunity for students to gain a deeper understanding of their own beliefs by adopting others’ perspectives (Risko et al., 2002). Perhaps a reason why the students in our study did not provide evidence that they were able to view their coaching approach through the lens of others is because we did not employ any instructor feedback or collaboration in conjunction with the prompts. Both of these approaches have shown to induce further gains in reflection when applied to journaling (Bain et al., 2002; Spalding & Wilson, 2002). The use of technology in our study would also serve a purpose in providing a way for instructors to provide immediate feedback and further connect coaching peers to facilitate students’ development of novel strategies used to overcome dilemmas in their practicum. Future research could explore using instructor feedback and peer collaboration in conjunction with the prompts.

One limitation of this study was the sole reliance on the students’ weekly journaling responses to the prompts. Because the weekly prompts addressed different aspects of reflective practice and the students varied in their response rates, word counts, and depth in responses each week, the findings are limited to the students who responded
to each presented prompt. This suggests a need for coach educators to increase the point allocation for each prompt response to ensure a more consistent response rate amongst students. However, given the varying coaching contexts and the data collected from a rather large group of higher education coach preparation students compared to existing research (Knowles et al., 2001), the findings, to a degree, could be theoretically generalizable. Future research could explore how the prompts engage reflection in practicing coaches or higher education coaching preparation students at other institutions.

Another important limitation of the current study involves the issue of causality. We cannot state with certainty that the reflective journaling prompts enhanced students’ reflective practice. Because the students in our study at times discussed the practicum coaches responses to coaching problems instead of their own, it is probable that the students were observing how their practicum coach dealt with certain issues. These observations could enhance students’ ability to engage the reflective process, as coach practitioners have reported observing mentors and other coaches as being influential facilitators of reflection (Bloom et al., 1998; Gould et al., 1990; Irwin et al., 2004). However, we cannot be certain that the students observed quality coaching practices either, especially since many students identified the practicum coach as the dilemma. While this would suggest a need for coach education to provide quality mentoring for practicum students, future research could explore how higher education coach preparation students use their practicum site mentor to engage reflective practice.

Finally, technology (i.e., Blackboard) was used in the current study to connect students in the field with a prompt. Other forms of technology, such students’ videos of their coaching practices, could be used in conjunction with Blackboard to facilitate
reflective practice. Future research needs to explore how additional technologies influence reflection. Additionally, we suggest the need of further explorations of how journal prompting can be used to encourage students to experiment during their practicum experience with the theoretical concepts normally taught in the higher education curriculum.

Supplemental Findings

In this section, we first present the findings for the students’ perceived facilitators and barriers of the prompts used in this study. Subsequently, we then present the students’ perceived facilitators and barriers of the use of technology. We also display the students’ perceptions for the prompts in Table 10 and their perception of using technology in Table 11.

*Students’ Perceptions of the Prompts*

Upon conclusion of the practicum course, the students perceived the prompts as being beneficial in their development and were able to induce them to engage reflective thinking. For example, Sally stated: “I liked how each week it [the prompts] made us reflect on what happened at a game or practice. It [prompting] also made us think about the ways we solved an issue and why we corrected the problem that way.” Students also thought that the prompts induced positive gains in their reflective writing. For example, Sara stated:

The prompts were well thought of and made us have to present a well thought out response instead of responding with a generic yes or no answer. They [the prompts] were in depth, which made us provide depth responses as well.

Other students perceived the prompts as having a positive psychological effect on them
in regard to stress relief and helping them become more confidence in their practicum. Despite the perceived facilitators of the prompts, the students also expressed some barriers.

Because the prompts asked students to reflect on similar components of their practicum experience over multiple occurrences, they perceived the repetitiveness of the prompts as barrier. For example, Sam stated: “I felt like they [the prompts] were kind of the same questions being asked over again.” The students suggested that they would have liked to have seen the prompts address different topics. Additionally, the students thought that at times the prompts may have contained too much structure. Students also discussed barriers to the prompts language as being confusing and sometimes needing rewording. For example, Mary stated: “I thought some of the prompts were a little confusing…and some [the prompts] needed to be reworded.” Despite discussing the barriers to the prompts, the students also offered their perceptions of how technology impacted their ability to complete the prompting assignments.

Table 10

*Students’ Perception of Journaling Prompts*

<table>
<thead>
<tr>
<th>Facilitators</th>
<th>Barriers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Made student think back on the week</td>
<td>The prompts became the same</td>
</tr>
<tr>
<td>Helped students reflect on their actions</td>
<td>The prompts were repetitive</td>
</tr>
<tr>
<td>Made students think about their problems</td>
<td>The prompt topics could be changed</td>
</tr>
<tr>
<td>Made students think about their beliefs</td>
<td>The prompts were time consuming</td>
</tr>
<tr>
<td>Made students observe</td>
<td>The prompts were due on Saturday</td>
</tr>
<tr>
<td>Made students generate strategies</td>
<td>Some prompts were confusing</td>
</tr>
</tbody>
</table>
Table 10 (continued).

| Made students identify negatives in coaching style | Some prompts need rewording |
| Made student produce a thought out response | Some prompts were too structured |
| Made students think about the things they learned | Students could complete the prompts whenever they could find time |
| Gave students something to write about | There were too many prompts |
| Gave students confidence | The students would sometimes forget to respond |
| Gave students a way to vent | |

*Students’ Perception of Technology*

Upon conclusion of the practicum course, the students perceive that technology was a useful way to facilitate their ability to complete the prompts. The students believed that the accessibility of technology used with journaling prompting saved them time. For example, Phil stated: “While coaching, my time is limited. Blackboard offers an easy and time saving method for turning in journals.” Similarly, the students felt that Blackboard was convenient; therefore, they were able to complete the assignments when they wanted. For example, Chuck stated: “I was able to do the journals at my convenience.” Despite the perceived facilitators of technology, the students also expressed some issues.

A barrier to using technology was expressed by the students as being a result of problematic accessibility issues. At times, the students discussed that they had no internet access or Blackboard was not functioning and they had to wait to submit their responses to the prompts at a later time. For example, Liz stated: “A lot of times Blackboard would be shut down. So it is a pain waiting for it to re-open.” Some students had difficulty with the compatibility of the word processor they were using to submit assignments with Blackboard. For example, Josh stated: “One barrier to using Blackboard was that I use a
different word processor that is not compatible… so I had to use a friend’s or the library’s computer to finish assignments.” Other barriers to using Blackboard were discussed by the students as having limited communication capabilities and lacking the ability to have face to face interaction.

Table 11

*Students’ Perception of Using Technology*

<table>
<thead>
<tr>
<th>Facilitators</th>
<th>Barriers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online saves time to do more coaching</td>
<td>Internet access issues</td>
</tr>
<tr>
<td>Online was easy</td>
<td>Computer difficulties</td>
</tr>
<tr>
<td>Online is convenient</td>
<td>Sometimes online database was shut down</td>
</tr>
<tr>
<td>Students did not have to go to campus</td>
<td>Online database would sometimes not let students see grades</td>
</tr>
<tr>
<td>Students can complete work went they wanted</td>
<td>Sometimes students had to wait to submit assignment</td>
</tr>
<tr>
<td>Technology is easy to manage</td>
<td>Online database was not compatible with some word processors</td>
</tr>
<tr>
<td>Technology was easy to understand</td>
<td>Online database is limited in the communication abilities</td>
</tr>
<tr>
<td>Technology made the class easier</td>
<td>Online database lacks face to face interactions</td>
</tr>
<tr>
<td>Online was face</td>
<td></td>
</tr>
<tr>
<td>Online submissions saves paper</td>
<td></td>
</tr>
<tr>
<td>Online allows time for more coaching</td>
<td></td>
</tr>
<tr>
<td>Online was easy to submit assignments</td>
<td></td>
</tr>
</tbody>
</table>
References


APPENDIX A

REFLECTIVE PRACTICE CONTINUUM

Adopted from (Powell, 1989)
APPENDIX B

INSTITUTIONAL REVIEW BOARD NOTICE OF COMMITTEE ACTION

THE UNIVERSITY OF SOUTHERN MISSISSIPPI

INSTITUTIONAL REVIEW BOARD
118 College Drive #5116 | Hattiesburg, MS 39406-0001
Phone: 601.266.5997 | Fax: 601.266.4377 | www.usm.edu/research/institutional-review-board

NOTICE OF COMMITTEE ACTION

The project has been reviewed by The University of Southern Mississippi Institutional Review Board in accordance with Federal Drug Administration regulations (21 CFR 26, 111), Department of Health and Human Services (45 CFR Part 46), and university guidelines to ensure adherence to the following criteria:

- The risks to subjects are minimized.
- The risks to subjects are reasonable in relation to the anticipated benefits.
- The selection of subjects is equitable.
- Informed consent is adequate and appropriately documented.
- Where appropriate, the research plan makes adequate provisions for monitoring the data collected to ensure the safety of the subjects.
- Where appropriate, there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of all data.
- Appropriate additional safeguards have been included to protect vulnerable subjects.
- Any unanticipated, serious, or continuing problems encountered regarding risks to subjects must be reported immediately, but not later than 10 days following the event. This should be reported to the IRB Office via the “Adverse Effect Report Form”.
- If approved, the maximum period of approval is limited to twelve months. Projects that exceed this period must submit an application for renewal or continuation.

PROTOCOL NUMBER: 13120303
PROJECT TITLE: Reflective Practice in Coach Education Practicum Students
PROJECT TYPE: New Project
RESEARCHER(S): Clayton Kuklick
COLLEGE/DIVISION: College of Health
DEPARTMENT: Human Performance and Recreation
FUNDING AGENCY/SPONSOR: N/A
IRB COMMITTEE ACTION: Expedited Review Approval
PERIOD OF APPROVAL: 12/05/2013 to 12/04/2014

Lawrence A. Hosman, Ph.D.
Institutional Review Board
### APPENDIX C

#### RESEARCH DESIGN TIMELINE

<table>
<thead>
<tr>
<th>Event</th>
<th>Person Responsible</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orientation Meeting; Practicum Packet Issued to Students</td>
<td>Instructor</td>
<td>January 22, 2014</td>
</tr>
<tr>
<td>Obtain Participants Consent</td>
<td>Clayton Kuklick</td>
<td>January 22, 2014</td>
</tr>
<tr>
<td>Pretest, Self-Reflection and Insight Scale</td>
<td>Clayton Kuklick</td>
<td>January 22, 2014</td>
</tr>
<tr>
<td>Preliminary Data Entered into SPSS</td>
<td>Clayton Kuklick</td>
<td>January 23-30, 2014</td>
</tr>
<tr>
<td>Prompt 1 Posted</td>
<td>Clayton Kuklick</td>
<td>February 2, 2014</td>
</tr>
<tr>
<td>Prompt 1 Response Due</td>
<td>Participants</td>
<td>February 8, 2014</td>
</tr>
<tr>
<td>Prompt 2 Posted</td>
<td>Clayton Kuklick</td>
<td>February 9, 2014</td>
</tr>
<tr>
<td>Prompt 1 Analysis</td>
<td>Clayton Kuklick</td>
<td>February 9-15, 2014</td>
</tr>
<tr>
<td>Prompt 2 Response Due</td>
<td>Participants</td>
<td>February 15, 2014</td>
</tr>
<tr>
<td>Prompt 3 Posted</td>
<td>Clayton Kuklick</td>
<td>February 16, 2014</td>
</tr>
<tr>
<td>Prompt 2 Analysis</td>
<td>Clayton Kuklick</td>
<td>February 16-22, 2014</td>
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<tr>
<td>Pre-test, Practical Paper Due</td>
<td>Participants; Clayton Kuklick; Laurie Neelis</td>
<td>February 19, 2014</td>
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<tr>
<td>Pretest Practical Paper Analysis and Coding</td>
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<td>February 20, 2014- March 20, 2014</td>
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<td>Prompt 3 Response Due</td>
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<tr>
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<td>Prompt 4 Response Due</td>
<td>Participants</td>
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<td>Prompt 5 Posted</td>
<td>Clayton Kuklick</td>
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<td>Prompt 4 Analysis</td>
<td>Clayton Kuklick</td>
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<tr>
<td>Peer Debriefing</td>
<td>Clayton Kuklick; Brian Gearity</td>
<td>March 2-8, 2014</td>
</tr>
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<td>Prompt 5 Response Due</td>
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<td>Prompt 6 Posted</td>
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<tr>
<td>Prompt 5 Analysis</td>
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<td>March 9-15, 2014</td>
</tr>
<tr>
<td>Prompt 6 Response Due</td>
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<td>Prompt 7 Posted</td>
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<td>Prompt 6 Analysis</td>
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<td>Prompt 8 Posted</td>
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<td>Prompt 7 Analysis</td>
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<td>Prompt 8 Response Due</td>
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<tr>
<td>Prompt 9 Posted</td>
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<tr>
<td>Prompt 8 Analysis</td>
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<td>Prompt 9 Response Due</td>
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<td>Prompt 9 Analysis</td>
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<td>Prompt 10 Response Due</td>
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<td>Prompt 11 Posted</td>
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<td>Task Description</td>
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<tr>
<td>Prompt 10 Analysis</td>
<td>Clayton Kuklick</td>
<td>April 13-19, 2014</td>
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<tr>
<td>Posttest Practical Paper Due</td>
<td>Participants; Clayton Kuklick; Instructor</td>
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<td>Posttest Practical Paper Analysis and Coding</td>
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<td>Prompt 12 Analysis</td>
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<td>April 27, 2014</td>
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<tr>
<td>Final Meeting; Posttest Self-Reflection and Insight Scale</td>
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<tr>
<td>Post Practicum Reflection Responses Issued and Collected</td>
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<td>April 30, 2014</td>
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<tr>
<td>Posttest Self-Reflection and Insight Scale Data Entered into SPSS</td>
<td>Clayton Kuklick</td>
<td>May 1- 8, 2014</td>
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<td>Pretest and Posttest Practical Papers Data Entered in SPSS</td>
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<td>Quantitative Data Analysis</td>
<td>Clayton Kuklick</td>
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<td>Post Practicum Reflection Response Analysis</td>
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<td>May 15- 22, 2014</td>
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</tbody>
</table>
APPENDIX D

COURSE SYLLABUS

Course Syllabus, Spring 2014
Practicum: Sport Coaching Education

INSTRUCTOR:                    PHONE
Teaching Assistant:            
EMAIL:                        FAX:  
OFFICE:                       OFFICE HRS:  

COURSE DESCRIPTION:
This course will give the student the opportunity to gain practical experience with current professionals in the fields of coaching and sport administration. The practicum allows the student to earn academic credit towards their degree while they explore career job interest areas. It also provides the student the opportunity to gain valuable on-the-job training, knowledge, and experience while working directly with current coaches and sport administrators.

It is the student's responsibility to secure a practicum supervisor and location.

CREDIT HOURS:
Academic credit hours earned may vary from a minimum of two to a maximum of six semester hours. The number of credit hours is based upon 40 hours of actual quality work experience per one academic credit hour earned
   2 credit hours = 80 work hours
   3 credit hours = 120 work hour

PREREQUISITES: First Aid, Introduction to Coaching, One Methods Course
(preferably the methods course of the sport the student will be working), Junior/Senior Standing, SCE major or minor, and Approval of Instructor.

COURSE OBJECTIVES:
1. To acquaint prospective sport administrators and coaches with professional job responsibilities.
2. To provide “hands-on” experience under the direction of fully qualified and professionally prepared coaches and administrators.
3. Understand the need for a safe practice/play environment, including proper set-up and breakdown of practice equipment and field equipment. (SD 9)
4. Understand the need for having safe playing equipment including proper pre-game and pre-practice equipment safety checks. (SD 9)
5. Demonstrate and understand the rules associated with a specific sport. (SD 24, 30, 32, 37)
6. Demonstrate and understand team operational management, risk management, and time management responsibilities. (SD 9, 31, 32, 33, 35, 36, 37)
7. Demonstrate the ability to construct and implement quality sport specific practice plans. (SD 35, 37)
8. Demonstrate the ability to effectively teach sport specific skills and techniques. (SD 33, 34, 37)
9. Demonstrate the ability to implement technology into sport specific skill development. (SD 31, 34, 37)
10. Demonstrate the components of a positive coaching philosophy. (SD 24, 30)
11. Demonstrate positive communication skills and techniques towards successfully motivating and coaching athletes. (SD 24, 26, 30)
12. Demonstrate and implement various psychological skills training techniques into practice sessions and game competitions. (SD 26, 30, 37)
13. Demonstrate an understanding of creating positive practice and training sessions. (SD 31, 34, 35, 37)
14. Be able to network with professionals in the sport industry, thereby increasing job prospects and career advancement possibilities.

COURSE REQUIREMENTS

1. Background Check: ALL students MUST complete the background check PRIOR to beginning the practicum experience. Students will receive emails about this obligation prior to the semester beginning. NO student will be allowed to begin a practicum until this requirement is completed. Should a student’s check indicate a problem the student will immediately be informed and pulled from the site until cleared by the University committee to return to the practicum site.

2. Orientation Meeting: January 22nd - Students will attend a mandatory meeting at the beginning of the semester. Students will receive the practicum packet (through email) and discuss course objectives and requirements. There will also be a short presentation to inform students of practicum benefits. A signed acknowledgement form, resume, health insurance form, and COPIES of your up-to-date first aid/CPR cards are due at the first meeting. FAILURE TO ATTEND THIS FIRST MEETING RESULTS IN THE LOSS OF 20 POINTS AND your paperwork is considered late.

3. Email: Students are required to have an active email account.

4. Resume: Students are expected to submit a resume at the application stage. The instructor will review these resumes and make recommendations if necessary. If changes are recommended an updated resume must be submitted with the midterm evaluation form. A professional resume is critical for securing a position in the coaching industry.

5. Monthly Timesheet: Students must complete a monthly timesheet indicating the number of hours worked at the practicum site. The practicum supervisor MUST sign the timesheets.
6. Students will write 2 practical papers that must be submitted to turnitin.com. Papers must be a minimum length of 3 pages, typed with 1" margins, double-spaced, in a normal font size not exceeding 12 point type, and include a cover page in APA format. A grade of zero will be given for any percentage of plagiarism.

7. Blackboard Weekly Reflections: The purpose of this assignment is to facilitate student reflective skills during the practicum experience. Students are expected to provide a reflection response to the structured prompts presented each week on Blackboard. All responses will be submitted on Blackboard. Instructions for accessing Blackboard will be included with the packet of paperwork. Guidelines for reflection are also included in the packet. Each prompt will be posted on Sunday of the corresponding week on Blackboard. Prompts will be presented for response on February 2nd through April 20th. The student is expected to provide a reflection response on a word processing document each week, which will be worth a total of 5 points. Each student will have until Saturday by midnight to submit a reflection response in the assignment drop box on Blackboard before it closes. Zero points will be issued to students that do not submit a reflection response on Blackboard in the allotted time frame. NO EXCEPTIONS.

Below are journaling guidelines that will go with each prompt when they are presented on blackboard.

Students should:
1. Thoroughly read each prompt.
2. Reflect upon each prompt.
3. Thoroughly respond to ALL of the components within each prompt.
5. Provide responses that draw conclusions relevant to their own coaching experiences.
6. Provide responses that connect coursework and theory to their coaching experiences.
7. Provide responses that demonstrate reasoning for new ideas.
8. Read each reflection response out loud to themselves to proofread their response before submitting.

Students have seven days to respond to the weekly prompt before it closes (Submit on Blackboard in assignment drop box). NO responses will be accepted after the prompt closes.

8. Mid-Term and Final Evaluations: Practicum supervisors are expected to complete mid-term and final evaluation forms. These MUST be signed by your supervising coach.

9. Final Report: Students are expected to complete a final paper describing his/her overall experience. The paper should reflect that the student understands the role of administration, the importance of a safe environment, development of practice
plans and proper management of the practicum site. The student should identify at least one problem or obstacle that exists within the organization and present a solution. Papers must be a minimum length of 5 pages, typed with 1” margins, double-spaced, and in a normal font size not exceeding 12 point type. Paper MUST be submitted to turnitin.com ON TIME!! NO EXCEPTIONS!

10. Final Conference: April 30th A final conference is held the last night of class at the end of the semester. Each student will have an opportunity to share their practicum experience with the instructor through an evaluation form. Final supervisor evaluations, final projects, and student exit evaluations are due at this time. Failure to attend this class meeting will result in a loss of 50 points AND a drop in letter grade.

11. Student Exit Evaluation: To be completed and submitted the same day as the final conference.

Course Requirements/Evaluation
**NOTE: You are required to submit copies of ALL forms. This can be done through blackboard, snail mail, fax, or dropped off to the instructor’s office. ALL written assignments (practical papers AND final report) MUST be submitted to turnitin.com. Be sure that you pay attention to the due dates given on the practicum checklist!

<table>
<thead>
<tr>
<th>Activity / Assignment</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orientation Meeting</td>
<td>20</td>
</tr>
<tr>
<td>Resume, App, FA Cards, Health</td>
<td>20</td>
</tr>
<tr>
<td>Monthly Timesheets (15 pts. x3)</td>
<td>45</td>
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<tr>
<td>2 Practical Papers: (40 pts. x2)</td>
<td>80</td>
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<tr>
<td>Blackboard Weekly Reflections</td>
<td>60</td>
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<tr>
<td>Mid-term Supervisor Evaluation</td>
<td>50</td>
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<tr>
<td>Final Supervisor Evaluation</td>
<td>50</td>
</tr>
<tr>
<td>Final Report</td>
<td>40</td>
</tr>
<tr>
<td>Final Conference</td>
<td>50</td>
</tr>
<tr>
<td>Student Exit Evaluation</td>
<td>20</td>
</tr>
<tr>
<td><strong>Total Points</strong></td>
<td>435</td>
</tr>
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</table>

Grading Scale

90-100% A
80-89% B
70-79% C
60-69% D
Below 60% F

Health Insurance Recommendation
Participation in this course may lead to accidents. All students are strongly encouraged
to have health insurance coverage. Information is available through the Student Health Services.

**Americans with Disabilities Act (ADA) Statement**
If a student has a disability that qualifies under the Americans with Disabilities Act (ADA) and requires accommodations, he/she should contact the Office of Disability Accommodations (ODA) for information on appropriate policies and procedures. Disabilities covered by ADA may include learning, psychiatric, physical disabilities, for chronic health disorders. Students can contact ODA if they are not certain whether a medical condition/disability qualifies.

**Academic Honesty**
The following is from the UNDERGRADUATE BULLETIN:
“When cheating is discovered, the faculty member may give the student an F on the work involved or in the course. If further disciplinary action is deemed appropriate, the student should be reported to the Dean of Students. In addition to being a violation of academic honesty, cheating violates the Code of Student Conduct and may be grounds for probation, suspension, and/or expulsion. Students on disciplinary suspension may not enroll in any courses offered.”
Student-Athletes – Please be aware of the policy that varsity athletes may not be supervised by their coaching staff – even in administrative capacities, for their practicum experience. This policy is in place in an attempt to prevent any questions of academic integrity.

Student-Athletes – Please be aware of the policy that varsity athletes may not be supervised by their coaching staff – even in administrative capacities, for their practicum experience. This policy is in place in an attempt to prevent any questions of academic integrity.
Purpose of Practicum
The coaching education practicum is designed for students to gain practical work experience in the coaching field. Students will have an opportunity to apply theories and principles from their formal education to real world situations. Students will develop basic skills, such as communication skills, problem-solving skills, and critical thinking abilities to function effectively in the coaching industry. This work-based learning initiative exposes the student to coaching education practices and prepares them to assume a professional role upon graduation. The practicum requirement also offers the student a networking opportunity and the ability to build a professional resume, thereby enhancing employment opportunities.

Pre-Requisites
Students must complete the following courses/hours prior to completing the practicum component:

- Background Check
- Approval of instructor.
- First Aid (Proof of updated cards)
- Introduction to Coaching and Sports Pedagogy
- One coaching methods class (preferably in the sport student will work with)
- Junior/Senior Standing

In addition, students must do the following:

- Submit an application for the practicum program and a copy of your resume on January 22nd.
- Receive approval from the instructor before beginning work at the practicum site.
- Submit a signed acknowledgement by the practicum supervisor accepting the student.
- Complete a background check – PRIOR to starting practicum
- Use Turnitin.com to submit ALL written papers

Site Selection
A list of potential internship sites can be found on the bulletin board outside the instructor’s office. Students should discuss career interests with the instructor to help determine an appropriate practicum site that matches the student’s interests, skills and sport. This will ensure the student gets the most meaningful practicum experience.

Academic Credit Hours
Students will enroll in 3 semester hours. The student must work at least 40 hours or more per semester hour signed up for at the practicum site to receive full academic credit.
Practicum Objectives
1. To acquaint prospective coaching majors with professional job responsibilities. (SD 1, 3)
2. To provide “hands-on” experience relating to building coach-athlete relationships, safety and injury prevention, physical conditioning, and teaching sport skills under the direction of fully qualified and professionally prepared coaches/administrators. (SD 5, 6, 7, 8, 12, 19, 27)
3. To provide opportunities to observe and participate in the planning, organizing, leading, managing, and evaluation of coaching duties in sport organizations. (SD 19, 20, 22, 25, 26, 27, 28, 29, 30, 32)
4. Enable the student to build a professional resume.
5. Be able to network with professionals in the sport industry, thereby increasing job prospects and career advancement possibilities.

Student Benefits
- Real world “hands-on” experience.
- Translate theory into practice for professional growth and development.
- Create professional resume and cover letter.
- Networking opportunities – establish contacts in your sport of interest.
- Possible employment after graduation.

Practicum Site Benefits
- Coaches/Administration has the opportunity to accomplish new goals or work on special projects.
- Practicum site can provide support and growth for students and university programs.

Faculty Coordinator/Program Benefits
- Student feedback regarding effectiveness of instruction and usefulness of current coaching education courses.
- Student evaluation of work experience.
- Establish relationship with local and regional schools and institutions.
- Access to local and regional schools and institutions.

Practicum Requirements
1. Orientation Meeting: Students MUST email instructor site placement and supervising coach. Students will receive the practicum packet (through email). A signed acknowledgement form, health insurance form, and proof of valid First Aid and CPR are due the first week of class. The signed acknowledgement form, copies of valid First Aid/CPR cards, and health insurance form are due on January 22th at the first meeting.
2. Email: Students are required to have a campus email account.
3. Resume: Students are expected to submit a resume the first night of class. The faculty coordinator will review these resumes and make recommendations if
needed. An updated resume must be submitted with any changes with the mid-term supervisor evaluation. A professional resume is critical for securing a position in the sports industry. (SD 1)

4. Monthly Timesheet: Students must complete a monthly timesheet indicating the number of hours worked at the practicum site. The practicum supervisor MUST sign the timesheets. Timesheets can be turned in to Blackboard, faxed, snail mailed, or hand delivered.

5. Practical Papers: Two practical papers will be submitted throughout the semester. In the paper, students will tie their practical experience to selected standards from the National Standards for Sport Coaches. Paper will be submitted via Turnitin.com. Papers that show any percentage of plagiarism will automatically be given a zero. Do NOT turn in your papers from prior practicum experience.

6. Blackboard Weekly Reflections: The purpose of this assignment is to facilitate student reflective skills during the practicum experience. Students are expected to provide a reflection response to the structured prompts presented each week on Blackboard. All responses will be submitted on Blackboard. Instructions for accessing Blackboard will be included with the packet of paperwork. Guidelines for reflection are also included in the packet. Each prompt will be posted on Sunday of the corresponding week on Blackboard. Prompts will be presented for response on February 2nd through April 20th. The student is expected to provide a reflection response on a word processing document each week, which will be worth a total of 5 points. Each student will have until Saturday by midnight to submit a reflection response in the assignment drop box on Blackboard before it closes. Zero points will issued to students that do not submit a reflection response on Blackboard in the time frame. NO EXCEPTIONS.

7. Site Supervisor Evaluations: Practicum supervisors are expected to complete mid-term and final evaluation forms. These can be submitted by the due date through Blackboard, snail mail, fax, or hand delivered.

8. Final Report: Students are expected to complete a final paper describing his/her overall experience. The paper should reflect that the student understands the role of administration, the importance of a safe environment, development of practice plans and proper management of the practicum site. The student should identify at least one problem or obstacle that exists within the organization and present a solution. Papers must be a minimum length of 5 pages, typed with 1” margins, double-spaced, in a normal font size not exceeding 12 point type, and have an APA formatted cover page. APA format should be followed. This should be submitted via Turnitin.com

9. Final Conference: A final conference is held the last night of class at the end of the semester. Each student will have an opportunity to share their practicum
experience with the instructor through an evaluation form. Final supervisor evaluations and student exit evaluations are due at this time. Failure to attend that last night results in a loss of all points for assignments due.

10. Student Exit Evaluation: To be completed and submitted on the last night of class.

NOTE: All papers and time sheets MUST be turned in by the due date. Failure to turn in assigned work will result in a 10 point deduction for each day late from the assignment.

Criteria for Evaluation

<table>
<thead>
<tr>
<th>Activity / Assignment</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orientation Meeting</td>
<td>20</td>
</tr>
<tr>
<td>Resume</td>
<td>20</td>
</tr>
<tr>
<td>Monthly Timesheets (15 pts. x3)</td>
<td>45</td>
</tr>
<tr>
<td>Practical Papers: (40 pts. x 2)</td>
<td>80</td>
</tr>
<tr>
<td>Blackboard Weekly Reflections</td>
<td>60</td>
</tr>
<tr>
<td>Mid-term Supervisor Evaluation</td>
<td>50</td>
</tr>
<tr>
<td>Final Supervisor Evaluation</td>
<td>50</td>
</tr>
<tr>
<td>Final Report</td>
<td>40</td>
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<tr>
<td>Final Conference</td>
<td>50</td>
</tr>
<tr>
<td>Student Exit Evaluation</td>
<td>20</td>
</tr>
<tr>
<td><strong>Total Points</strong></td>
<td><strong>435</strong></td>
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</table>

Points of Interest

**Attendance:** A practicum is the equivalent of being a regular employee of an organization. Students must attend all practice/events associated with your experience. If for any reason you must be absent, you must notify the practicum supervisor.

**Remediation Plan:** Students who do not demonstrate competency in the coaching profession as evident in your practical papers, final report, final conference, or site supervisor’s report will be asked to complete additional work or repeat the hours. Students must earn at least 291 points out of 435 to be eligible to earn credit for their practicum work.

**Professional Conduct:** While working at the practicum site, students are considered a representative of that organization. Therefore students need to conduct themselves ethically and according to professional standards. Students not only represent the organization and themselves, but also the university and the Coaching Education program. Please leave a positive impression whereby employers will want to work with our students in the future.

**Americans with Disabilities Act**
The university complies with § of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990 (ADA). No otherwise handicapped person, solely on the basis of handicap, will be excluded from participation in, be denied benefits of, or be subjected to discrimination in the administration of any educational program or activity including admission or access thereto or in treatment or employment the university. If you have a qualified disability under the ADA and need reasonable accommodation in the classroom or on campus, please contact the Coordinator of the Office for Disability Accommodations (ODA) for information on ADA policies and procedures.
Practicum Form
Coaching Education Program
Practicum Application Form

<table>
<thead>
<tr>
<th>Last Name</th>
<th>First</th>
<th>Middle</th>
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<tr>
<th>Address</th>
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<tr>
<th>City</th>
<th>State</th>
<th>Zip</th>
<th>Email</th>
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Home Phone                              Work Phone
Student ID#                               Date of Birth

Semester to Begin Placement:  ____ Fall   ____ Spring   ____ Summer

<table>
<thead>
<tr>
<th>Practicum Site Name:</th>
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<table>
<thead>
<tr>
<th>Site Supervisor</th>
<th>Phone</th>
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<table>
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<tr>
<th>Address</th>
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<tr>
<th>City</th>
<th>State</th>
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I CERTIFY THAT THE INFORMATION IN THIS APPLICATION IS TRUE AND ACCURATE.

<table>
<thead>
<tr>
<th>Student Signature</th>
<th>Date</th>
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Coaching Education Program

Acknowledge of Practicum Student

The site supervisor agrees that the student will undertake a practicum experience with the organization. The site supervisor understands the student is seeking academic course credit, and agrees to supervise the activities of the practicum student, provide professional guidance, evaluate the performance of the student, and verify the number of hours and quality of work. The student agrees to perform the duties required by their supervisor. All parties understand a practicum is intended to allow a student to gain valuable work experience relevant to the student’s career in coaching education.

Student: __________________________________________ Date: ____________

Site Supervisor: ________________________________ Date: ____________

Faculty Coordinator: ____________________________ Date: ____________
Coaching Education Program
Health Insurance Form

PART I – Student Information

Name: _______________________________  Student ID# ___________
Address: ____________________________________________________________________

Phone: ______________________________

Please check the appropriate box:

☐ I have health insurance coverage. (Complete PART II)
☐ I do not have health insurance coverage. (Complete PART III)

PART II – Health Insurance Information

Provider Name _______________________________  Policy Number ___________

Date Coverage Begins ___________________________  Date Coverage Ends ________

My signature verifies this information is true and accurate:
______________________________

PART III – Uninsured Student Disclaimer

I, ________________________________, understand that the university is not responsible for any health expenses incurred during my internship experience. Further, I have been advised by the university to obtain health insurance and I have elected not to do so.

______________________________
Student Signature
Coaching Education Practicum Timesheet

Student Name: _________________________________
Semester/Year: _________________________________
Internship Site: _________________________________
City, State, Zip: _________________________________

<table>
<thead>
<tr>
<th>Week One</th>
<th>Date</th>
<th>Hours Worked</th>
<th>Week Two</th>
<th>Date</th>
<th>Hours Worked</th>
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<tbody>
<tr>
<td>Monday</td>
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<table>
<thead>
<tr>
<th>Week Three</th>
<th>Date</th>
<th>Hours Worked</th>
<th>Week Four</th>
<th>Date</th>
<th>Hours Worked</th>
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<tbody>
<tr>
<td>Monday</td>
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<td>Total</td>
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</table>

Total Monthly Hours: _________________________________
Site Supervisor Signature: _________________________________
Student Signature: _________________________________
Coaching Education Program

Practical Papers

You will complete two practical papers. Each one is worth 40 points and due on indicated dates. You must write (type) at least THREE PAGES (3) double-spaced, in APA format, connecting your practicum experiences to the topic listed for that paper. All topics relate to the National Standards for Coaches. Use specific events, issues, conversations, and/or observations related to your practicum experience. Explain your contribution to organizational activities, what you learned, and how you can relate these experiences to courses completed in the Coaching Education program and the National Standards.

1st Paper: Psychology and Sociology of Sport (Due February 19, 2014).
Choose at least 1 of the following topics to discuss in your first paper.

- Coaches want to develop and implement an athlete-centered philosophy. Discuss the philosophy of the coach you are working with, your thoughts on his/her philosophy, how it compares to your philosophy, and how the coach has communicated the philosophy to the individuals that he/she is coaching. (SD1)
- Coaches have a responsibility to use to help individuals develop positive behaviors. Discuss how you plan to develop positive behaviors in the athletes that you will work with during this experience as well as in the future. (SD 3)
- Coaches can use various principles of motivation to help athletes experience success. Discuss the motivational techniques that you have seen coaches use or that you will use to create a learning environment that focuses on effort and achievement, support athletes’ unique needs, and increase their chances of success. (SD 25, 26)

2nd Paper: Sport Injury (Due April 16, 2014).
Choose at least 1 of the following topics to discuss in your second paper.

- Coaches must be properly trained in injury prevention. Discuss how the facilities, equipment, and environment are monitored in your practicum situation to ensure the safety of the participants. (SD 5, 6, 7)
- Coaches must understand the pre-existing conditions and previous injuries that may predispose athletes to injuries. They must also have knowledge about how to recognize injuries and provide immediate and appropriate care. Discuss the injuries that are common in your sport, what factors might predispose someone to getting injured, and how you would deal with injuries. (SD 8, 9)
Coaching Education Program - Practical Paper Rubric

<table>
<thead>
<tr>
<th>Criteria</th>
<th>2 Does not meet basic standards</th>
<th>3 Partially meets basic standards</th>
<th>4 Meets basic standards</th>
<th>5 Exemplary-exceeds basic standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clarity</td>
<td>Writing is clear, focused and specific to the topic. Main ideas are organized and clearly stand out. A clear knowledge of the topic is consistently present throughout the paper.</td>
<td></td>
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<tr>
<td>Exploration of topic</td>
<td>Exploration of the topic provides valuable insight into the topic and is thorough. Supporting details provide additional information on the topic.</td>
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</tr>
<tr>
<td>Structure</td>
<td>Paper is written in a manner that provides easy reading for knowledge and comprehension. Variation of sentence structure is present. Transitions smooth both within and between paragraphs.</td>
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</tr>
<tr>
<td>Proper Use of APA Format</td>
<td>More than 4 errors are found with margins, , formatting, etc.</td>
<td>3 or 4 errors are found with margins, formatting, etc.</td>
<td>1 or 2 errors are found with margins, formatting, etc.</td>
<td>No errors are found with margins, formatting, etc.</td>
</tr>
<tr>
<td>Title Page</td>
<td>Evidence of 2 or less</td>
<td>Evidence of 3</td>
<td>Evidence of 4</td>
<td>Title, Your Name, Teacher’s Name, Course, Date, Neatly finished, stapled, NO errors</td>
</tr>
<tr>
<td>Punctuation</td>
<td>More than 4 errors are found with punctuation</td>
<td>3 or 4 errors are found with punctuation</td>
<td>1 or 2 errors are found with punctuation</td>
<td>No errors are found with punctuation</td>
</tr>
<tr>
<td>Spelling &amp; Capitalization</td>
<td>More than 4 spelling and/or capitalization errors are found in the paper</td>
<td>3 or 4 spelling and/or capitalization errors are found in the paper</td>
<td>1 or 2 spelling and/or capitalization errors are found in the paper</td>
<td>No errors are found with spelling and/or capitalization</td>
</tr>
<tr>
<td>Grammar</td>
<td>More than 4 grammatical errors are found in the paper</td>
<td>3 or 4 grammatical errors are found in the paper</td>
<td>1 or 2 grammatical errors are found in the paper</td>
<td>No grammatical errors are found in the paper</td>
</tr>
<tr>
<td>Total Section Rating</td>
<td></td>
<td></td>
<td>/40</td>
<td></td>
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</tbody>
</table>
Blackboard Weekly Reflections Instructions

1. Open your computer’s browser (we suggest Mozilla Firefox for the best results. You can download it for free here: [http://www.firefox.com](http://www.firefox.com)).
2. In your address bar, type: [http://blackboard.com](http://blackboard.com)
3. To login:
   a. Your “Username” will be your current student ID number (i.e. ‘w123456’)
   b. Your password will be your current academic records password.
   c. If you have problems logging in, try logging in to your academic records. If that login is successful, you should be able to login to Blackboard 9.1. If you still cannot log in, contact the iTech HELPDESK.
4. Once logged in, you should see the “My Learning Online” tab and a “Courses” tab. On the “My Learning Online” tab, you should see your course shell listed on the right hand side under My Courses, then Courses you are currently enrolled.
5. The course shell’s name will be displayed in this format:
   a. SEMESTER CODE_SEMESTER_COURSE NUMBER_COURSE SECTION_COURSE ID# (EX:4135_SUM2013_ID3432_H001_1005)
6. Click on the course name to access it and to begin viewing the content for the course.
7. The “Course Materials” tab will contain all of the course materials for the course.
   a. Within this tab, each week of the course will be labeled
   b. Click on the corresponding week
   c. The “Table of Contents” will help guide you through the contents for the corresponding week
      i. Note: If you do not see the “Table of Contents”, click on the second small box from the top that is located on the top of the thick gray line that is to the right of the yellow rectangle.
   d. Click on the designated reflection prompt folder
   e. Read the prompt and type a response in a word document
   f. Upload the document with the response in the appropriate assignment drop box.
Blackboard Weekly Reflections Guidelines

Blackboard Weekly Reflections: The purpose of this assignment is to facilitate student reflective skills during the practicum experience. Students are expected to provide a reflection response to the structured prompts presented each week on Blackboard. All responses will be submitted on Blackboard. Instructions for accessing Blackboard will be included with the packet of paperwork. Guidelines for reflection are also included in the packet. Each prompt will be posted on Sunday of the corresponding week on Blackboard. Prompts will be presented for response on February 2nd through April 20th. The student is expected to provide a reflection student response on a word processing document each week, which will be worth a total of 5 points. Each student will have until Saturday by midnight to submit a reflection response in the assignment drop box on Blackboard before it closes. Zero points will be issued to students that do not submit a reflection response on Blackboard in the allotted time frame. NO EXCEPTIONS.

Students should:

1. Thoroughly read each prompt.
2. Reflect upon each prompt.
3. Thoroughly respond to ALL of the components within each prompt.
5. Provide responses that draw conclusions relevant to their own coaching experiences.
6. Provide responses that connect coursework and theory to their coaching experiences.
7. Provide responses that demonstrate reasoning for new ideas.
8. Read each reflection response out loud back to themselves to proofread their response before submitting.

Students have seven days to respond to the weekly prompt before it closes (Submit on Blackboard in assignment drop box). NO responses will be accepted after the prompt closes.
Mid-Term Practicum Evaluation Form

Student Name: _______________________________________

Practicum Site: _______________________________________

Site Supervisor: _______________________________________  

1. Please describe the primary responsibilities assigned thus far during the practicum.
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

2. Please evaluate the student’s performance in the following areas by marking the appropriate box.

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Very Poor</th>
<th>Poor</th>
<th>Average</th>
<th>Good</th>
<th>Very Good</th>
<th>Not Observed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initiative</td>
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<tr>
<td>Appearance</td>
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<tr>
<td>Dependability</td>
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<tr>
<td>Motivation</td>
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<tr>
<td>Writing Skills</td>
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<tr>
<td>Organizational skills</td>
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<tr>
<td>Verbal communication</td>
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<tr>
<td>Computer skills</td>
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<td>Human relations</td>
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<tr>
<td>Industry knowledge</td>
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<td>Leadership skills</td>
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<tr>
<td>Adherence to policies</td>
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<tr>
<td>Punctuality</td>
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<tr>
<td>Ability to learn</td>
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<td>Ability to accept constructive criticism</td>
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<td>Ability to work independently</td>
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<td>Ability to work with others</td>
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3. Please comment on the student’s greatest strengths and how they are likely to help professional development.
________________________________________________________________________
________________________________________________________________________
4. Please comment on the student’s greatest weaknesses and how, unless changed, they are likely to hinder professional development.

5. Can you suggest ways in which we can improve our curriculum to make our students more valuable in the industry?

6. Taking everything into consideration, determine the overall effectiveness of the student’s progress:
   (Circle One)  A  B  C  D  F

   Evaluation Discussed with Student:  ☐ Yes  ☐ No

   Signature of Supervisor:  ____________________________

   Signature of Student:  ____________________________

   Date:  ____________________________

   THANK YOU
Final Practicum Evaluation Form

Student Name: __________________________________________

Practicum Site: __________________________________________

Site Supervisor: __________________________________________

Please evaluate the student’s performance by marking the appropriate box.

1. Attendance and Punctuality – Consider attendance of assigned hours.
   - [ ] Excellent
   - [ ] Occasionally
   - [ ] Frequently
   - [ ] Unreliable
   - [ ] Absent/Tardy

2. Judgment and Decision Making – Consider ability to reach sound decisions, to handle unusual situations, fair mindedness.
   - [ ] Excellent
   - [ ] Sound
   - [ ] Good
   - [ ] Poor

3. Attitude – Consider student’s attitude toward work, supervisors, other employees, public, and attitude toward constructive criticism.
   - [ ] Excellent
   - [ ] Good
   - [ ] Fair
   - [ ] Poor

4. Quantity of Work – Consider amount and speed of work.
   - [ ] High Output
   - [ ] High-Medium
   - [ ] Medium-Low
   - [ ] Low Output

5. Quality of Work – Consider accuracy and thoroughness.
   - [ ] Excellent
   - [ ] Average
   - [ ] Passable
   - [ ] Careless

6. Dependability – Consider consistency and ability to follow job through to completion.
   - [ ] Very Reliable
   - [ ] Usually Reliable
   - [ ] Rarely Reliable
   - [ ] Unreliable

7. Initiative – Consider ability to anticipate tasks to complete and resourcefulness.
   - [ ] Actively
   - [ ] Frequently
   - [ ] Seldom
   - [ ] Merely
8. Cooperation – Consider ability to work with staff and supervisor.

☐ Excellent ☐ Very Good ☐ Satisfactory ☐ Needs to Improve

9. Adaptability – Consider quickness to learn, retain instruction, and follow directions.

☐ Exceptional ☐ Learns with Ease ☐ Average ☐ Slow to Learn

10. Professional Demeanor – Consider grooming and dress; appropriate to the work environment.

☐ Exceptional ☐ Favorable ☐ Acceptable ☐ Unsatisfactory

11. Would you recommend this student for a position in his/her field of study?

☐ Yes ☐ No

Please comment on whether the student is able to organize, direct, provide for safety of athletes, and effectively teach sport specific skills and techniques.

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Please comment of whether the student has improved in his/her areas of weakness that you addressed in the mid-term evaluation.

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Additional Comments:

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Evaluation Discussed with Student: ☐ Yes ☐ No

Signature of Supervisor: ________________________________

Signature of Student: ________________________________

Date: ________________________________
Coaching Education Program

Student Exit Evaluation Form

Last Name

First

Middle

Address

City

State

Zip

Email

Practicum Site Name: ____________________________

Site Supervisor: ____________________________

This form is to be completed and returned to the faculty coordinator at the final conference. Please do not simply answer yes/no. Take some time and provide us with useful information for each item. The information provided will be used to improve the practicum experience for future students.

Please answer the following questions using the scale of (1) Strongly Disagree, (2) Disagree, (3) Undecided, (4) Agree, or (5) Strongly Agree.

1. Overall, the practicum was a valuable learning experience.  
2. The quality of my site supervisor was excellent.  
3. The practicum provided opportunities to develop a professional network.  
4. My coursework adequately prepared me for the practicum experience.  
5. Practicum assignments were interesting and stimulating.  
6. The practicum provided experiences that will be useful in obtaining a job in my field.  
7. I would recommend this practicum site to future students.  
8. What were the strengths of your academic preparation?

SD 2 3 4 5  
SA
9. What were the weakest parts of your academic preparation?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

10. What recommendations would you make to improve academic preparation?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

11. Did the experience involve relevant and challenging use of your skills? Explain.

________________________________________________________________________
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________________________________________________________________________

12. Did you experience any significant problems during your practicum? Explain.

________________________________________________________________________
________________________________________________________________________
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________________________________________________________________________

THANK YOU
For the final report, students are expected to complete a paper on their overall experience. The paper should reflect the student understanding of the role of administration, the importance of a safe environment, appropriate conditioning practices for their sport, the psychological aspects relevant to their sport, the development of practice plans, and the proper management of the practicum site. The students should identify at least one problem or obstacle that exists within the organization and present a solution. Papers must be a minimum length of 5 pages, typed with 1” margins, double-spaced, and in a normal font size not exceeding 12 point type. APA format should be used for both the paper AND the title page. This paper is worth 40 points.
## Coaching Education Program - Final Report Rubric

<table>
<thead>
<tr>
<th>Criteria</th>
<th>2 Does not meet basic standards</th>
<th>3 Partially meets basic standards</th>
<th>4 Meets basic standards</th>
<th>5 Exemplary-exceeds basic standards</th>
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<td>Writing is clear, focused and</td>
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<td>specific to the topic. Main</td>
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<td>ideas are organized and clearly</td>
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<td>present throughout the paper.</td>
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<td>provides valuable insight into</td>
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<td>the topic and is thorough.</td>
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<td>is present. Transitions smooth</td>
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<td>Evidence of 3</td>
<td>Evidence of 4</td>
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Coaching Education Program  
Practicum Checklist Spring 2014

<table>
<thead>
<tr>
<th>Activity / Assignment</th>
<th>Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application form and Resume submission</td>
<td>Wednesday, January 22, 2014</td>
</tr>
<tr>
<td>Orientation Meeting &amp; Email account</td>
<td>Wednesday, January 22, 2014</td>
</tr>
<tr>
<td>Site Supervisor Mid-Term Evaluation</td>
<td>Wednesday, March 19, 2014</td>
</tr>
<tr>
<td>Weekly Blackboard Reflections</td>
<td>February 2nd through April 20th</td>
</tr>
<tr>
<td>Monthly Timesheets (x3)</td>
<td>Wednesday, February 19, 2014</td>
</tr>
<tr>
<td></td>
<td>Wednesday, March 19, 2014</td>
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<tr>
<td></td>
<td>Wednesday, April 16, 2014</td>
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<tr>
<td>Practical Papers (x2)</td>
<td>Wednesday, February 19, 2014</td>
</tr>
<tr>
<td></td>
<td>Wednesday, April 16th, 2014</td>
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<tr>
<td>Site Supervisor Final Evaluation</td>
<td>Wednesday, April 30, 2014</td>
</tr>
<tr>
<td>Final Project (Paper)</td>
<td>Wednesday, April 30, 2014</td>
</tr>
<tr>
<td>Final Conference</td>
<td>Wednesday, April 30, 2014</td>
</tr>
<tr>
<td>Student Exit Evaluation</td>
<td>Wednesday, April 30, 2014</td>
</tr>
</tbody>
</table>
APPENDIX F

BLACKBOARD INSTRUCTION FOR STUDENTS

1. Open your computer’s browser (we suggest Mozilla Firefox for the best results. You can download it for free here: http://www.firefox.com).
2. In your address bar, type: http://blackboard.com
3. To login:
   a. Your “Username” will be your current student ID number (i.e. ‘w123456’)
   b. Your Password will be your current academic records password.
   c. If you have problems logging in, try logging in to your academic records. If that login is successful, you should be able to login to Blackboard 9.1. If you still cannot log in, contact the iTech HELPDESK.
4. Once logged in, you should see the “My Learning Online” tab and a “Courses” tab. On the “My Learning Online” tab, you should see your course shell listed on the right hand side under My Courses, then Courses you are currently enrolled.
5. The course shell’s name will be displayed in this format:
   a. SEMESTER CODE_SEMESTER_COURSE NUMBER_COURSE SECTION_COURSE ID# (EX:4135_SUM2013_ID3432_H001_1005)
6. Click on the course name to access it and to begin viewing the content for the course.
7. The “Course Materials” tab will contain all of the course materials for the course.
   a. Within this tab, each week of the course will be labeled
   b. Click on the corresponding week
   c. The “Table of Contents” will help guide you through the contents for the corresponding week
      i. Note: If you do not see the “Table of Contents”, click on the second small box from the top that is located on the top of the thick gray line that is to the right of the yellow rectangle.
   g. Click on the designated reflection prompt folder
   h. Read the prompt and type a response in a word document
   i. Upload the document with the response in the appropriate assignment drop box.
APPENDIX G

SUMMARY OF ADDITIONS TO PRACTICUM PACKET

Blackboard Weekly Reflections: The purpose of this assignment is to facilitate student reflective skills during the practicum experience. Students are expected to provide a reflection response to the structured prompts presented each week on Blackboard. All responses will be submitted on Blackboard. Instructions for accessing Blackboard will be included with the packet of paperwork. Guidelines for reflection are also included in the packet. Each prompt will be posted on Sunday of the corresponding week on Blackboard. Prompts will be presented for response on February 2nd through April 20th. The student is expected to provide a reflection response on a word processing document each week, which will be worth a total of 5 points. Each student will have until Saturday by midnight to submit a reflection response in the assignment drop box on Blackboard before it closes. Zero points will be issued to students that do not submit a reflection response on Blackboard in the allotted time frame. NO EXCEPTIONS.

Students should:
1. Thoroughly read each prompt.
2. Reflect upon each prompt.
3. Thoroughly respond to ALL of the components within each prompt.
5. Provide responses that draw conclusions relevant to their own coaching experiences.
6. Provide responses that connect coursework and theory to their coaching experiences.
7. Provide responses that demonstrate reasoning for new ideas.
8. Read each reflection response out load back to themselves to proofread their response before submitting.

Students have seven days to respond to the weekly prompt before it closes (Submit on Blackboard in assignment drop box). NO responses will be accepted after the prompt closes.
### Criteria for Evaluation

<table>
<thead>
<tr>
<th>Activity / Assignment</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orientation Meeting</td>
<td>20</td>
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<tr>
<td>Resume &amp; Cover Letter</td>
<td>20</td>
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<tr>
<td>Monthly Timesheets (15 pts. x3)</td>
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<tr>
<td>Practical Papers: (40 pts. x2)</td>
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<td>Blackboard Weekly Reflections</td>
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<tr>
<td>Mid-term Supervisor Evaluation</td>
<td>50</td>
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<tr>
<td>Final Supervisor Evaluation</td>
<td>50</td>
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<tr>
<td>Final Report</td>
<td>40</td>
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<tr>
<td>Final Conference</td>
<td>50</td>
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<td>Student Exit Evaluation</td>
<td>20</td>
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<tr>
<td><strong>Total Points</strong></td>
<td><strong>435</strong></td>
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</tbody>
</table>
APPENDIX H

DEMOGRAPHIC QUESTIONS AND SELF REFLECTION AND INSIGHT SCALE

1. Age: ______

2. Sex (circle one): M  F

3. Primary Ethnicity (chose one):
   a. African American
   b. Asian
   c. Caucasian (non-Hispanic)
   d. Caucasian (of Hispanic decent)
   e. East Indian
   f. Other

4. Class Rank (choose one): Freshman Sophomore Junior Senior

5. Number of years as an assistant or head coach (not including practicum): __________

6. Have you completed practicum at any time during your course work (circle one)? Y  N

7. Do you currently keep a journal or diary on a regular basis in which you write about your thoughts (circle one)? Y  N

8. In the sport you are going to coach, what is the highest level in which you have competed?
   a. Never
   b. Recreational
   c. Travel/select
   d. High school level
   e. Collegiate: Division III
   f. Collegiate: Division II
   g. Collegiate: Division I
   h. Semi-Professional
   i. Professional

9. In any sport, what is the highest level in which you have competed?
   a. Never
   b. Recreational
   c. Travel/select
   d. High school level
   e. Collegiate: Division III
   f. Collegiate: Division II
   g. Collegiate: Division I
   h. Semi-Professional
   i. Professional
SRIS

Please read the following questions and circle the response that indicates the degree to which you agree or disagree with each of the statements. Try to be accurate, but work quite quickly. Do not spend too much time on any question.

THERE ARE NO “WRONG” OR “RIGHT” ANSWERS – ONLY YOUR OWN PERSONAL PERSPECTIVE

BE SURE TO ANSWER EVERY QUESTION – ONLY CIRCLE ONE ANSWER FOR EACH QUESTION

<table>
<thead>
<tr>
<th>Question</th>
<th>Disagree</th>
<th>Disagree Slightly</th>
<th>Agree Slightly</th>
<th>Agree</th>
<th>Agree Slightly</th>
<th>Agree</th>
<th>Agree Slightly</th>
<th>Agree</th>
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</thead>
<tbody>
<tr>
<td>1. I don’t often think about my thoughts</td>
<td>1 2 3</td>
<td></td>
<td>4 5 6</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>2. I am not really interested in analyzing my behaviour</td>
<td>1 2 3</td>
<td></td>
<td>4 5 6</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>3. I am usually aware of my thoughts</td>
<td>1 2 3</td>
<td></td>
<td>4 5 6</td>
<td></td>
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<td>4. I’m often confused about the way that I really feel about things</td>
<td>1 2 3</td>
<td></td>
<td>4 5 6</td>
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<tr>
<td>5. It is important for me to evaluate the things that I do</td>
<td>1 2 3</td>
<td></td>
<td>4 5 6</td>
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<tr>
<td>6. I usually have a very clear idea about why I have behaved in a certain way</td>
<td>1 2 3</td>
<td></td>
<td>4 5 6</td>
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<tr>
<td>7. I am very interested in examining what I think about</td>
<td>1 2 3</td>
<td></td>
<td>4 5 6</td>
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<td>8. I rarely spend time in self-reflection</td>
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<td>4 5 6</td>
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<td>9. I’m often aware that I’m having a feeling, but I often don’t quite know what it is</td>
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<td>4 5 6</td>
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<tr>
<td>10. I frequently examine my feelings</td>
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<td>4 5 6</td>
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<tr>
<td>11. My behaviour often puzzles me</td>
<td>1 2 3</td>
<td></td>
<td>4 5 6</td>
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<td>12. It is important to me to try to understand what my feelings mean</td>
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<td>4 5 6</td>
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<tr>
<td>13. I don’t really think about why I behave in the way that I do</td>
<td>1 2 3</td>
<td></td>
<td>4 5 6</td>
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<td>14. Thinking about my thoughts makes me more confused</td>
<td>1 2 3</td>
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<td>4 5 6</td>
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<tr>
<td>15. I have a definite need to understand the way that my mind works</td>
<td>1 2 3</td>
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<td>4 5 6</td>
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<tr>
<td>16. I frequently take time to reflect on my thoughts</td>
<td>1 2 3</td>
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<td>4 5 6</td>
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<tr>
<td>17. Often I find it difficult to make sense of the way I feel about things</td>
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<td>4 5 6</td>
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<tr>
<td>18. It is important to me to be able to understand how my thoughts arise</td>
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<td>4 5 6</td>
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<tr>
<td>19. I often think about the way I feel about things</td>
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<td>4 5 6</td>
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<tr>
<td>20. I usually know why I feel the way I do</td>
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<td>4 5 6</td>
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</table>
You will complete two practical papers. Each one is worth 40 points and due on indicated dates. You must write (type) at least THREE PAGES (3) double-spaced, in APA format, connecting your practicum experiences to the topic listed for that paper. All topics relate to the National Standards for Coaches. Use specific events, issues, conversations, and/or observations related to your practicum experience. Explain your contribution to organizational activities, what you learned, and how you can relate these experiences to courses completed in the Coaching Education program and the National Standards.

1st Paper: Psychology and Sociology of Sport (Due February 19, 2014). Choose at least 1 of the following topics to discuss in your first paper.

- Coaches want to develop and implement an athlete-centered philosophy. Discuss the philosophy of the coach you are working with, your thoughts on his/her philosophy, how it compares to your philosophy, and how the coach has communicated the philosophy to the individuals that he/she is coaching. (SD1)
- Coaches have a responsibility to use to help individuals develop positive behaviors. Discuss how you plan to develop positive behaviors in the athletes that you will work with during this experience as well as in the future. (SD 3)
- Coaches can use various principles of motivation to help athletes experience success. Discuss the motivational techniques that you have seen coaches use or that you will use to create a learning environment that focuses on effort and achievement, support athletes’ unique needs, and increase their chances of success. (SD 25, 26)

2nd Paper: Sport Injury (Due April 16, 2014). Choose at least 1 of the following topics to discuss in your second paper.

- Coaches must be properly trained in injury prevention. Discuss how the facilities, equipment, and environment are monitored in your practicum situation to ensure the safety of the participants. (SD 5, 6, 7)
- Coaches must understand the pre-existing conditions and previous injuries that may predispose athletes to injuries. They must also have knowledge about how to recognize injuries and provide immediate and appropriate care. Discuss the injuries that are common in your sport, what factors might predispose someone to getting injured, and how you would deal with injuries. (SD 8, 9)
## APPENDIX J

### REFLECTIVE PROMPTS

<table>
<thead>
<tr>
<th>Prompt 1</th>
<th>Prompt 2</th>
<th>Prompt 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prompt</td>
<td>During your practicum experience to this point, discuss what has happened that contradicts your prior beliefs? Also discuss what has happened that confirms your prior beliefs?</td>
<td>Recollect a critical coaching problem or dilemma that has occurred during your most recent practice or game. What happened in the dilemma? Describe the activities that led up to the dilemma. Describe why you think this is a critical coaching problem or dilemma.</td>
</tr>
<tr>
<td>Reflective Practice</td>
<td>Role Frame Analysis</td>
<td>Role Frame Analysis, Reflection in action/ on action; Appreciation</td>
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</table>

<table>
<thead>
<tr>
<th>Prompt 4</th>
<th>Prompt 5</th>
<th>Prompt 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prompt</td>
<td>Evaluate your coaching to this point. Describe what areas you need to improve and what strategies will you apply to overcome these weaknesses?</td>
<td>Recollect a critical coaching problem or dilemma that has occurred during your most recent practice or game. Describe what happened and what you were thinking at the time of the dilemma? What feelings guided your response to the dilemma?</td>
</tr>
<tr>
<td>Reflective Practice</td>
<td>Role Frame Analysis, Reflection on action; Appreciation</td>
<td>Role Frame Analysis, Reflection in action/ on action; Appreciation, Action</td>
</tr>
<tr>
<td>Prompt</td>
<td>Prompt 7</td>
<td>Prompt 8</td>
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<tr>
<td>Prompt</td>
<td>Describe what you think your athletes would say if someone asked them what your greatest strength was and what your greatest weakness was? Also describe the coaching strategies that your athletes would change in your coaching style.</td>
<td>Recollect a critical coaching problem or dilemma that has occurred during your most recent practice or game. Describe what happened and how you might handle this dilemma differently in the future. Also, describe what you think the outcome of that approach would be.</td>
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<tr>
<td>Reflective Practice</td>
<td>Role Frame Analysis, Reflection on action; Appreciation, Action</td>
<td>Reflection in/on action; Appreciation, Action</td>
</tr>
</tbody>
</table>

| Reflective Practice | Role Frame Analysis; Reflection on action, Appreciation | Role Frame Analysis; Reflection in/on action | Reflection in/on action; Appreciation, Action, Re-appreciation |
APPENDIX K

POST PRACTICUM REFLECTIONS

Please provide a thorough response to the following statements. Please be honest and accurate in your answer.

1. Please discuss the barriers or facilitators of using technology (i.e., Blackboard) for the structured reflective journal.

2. Please discuss the positive and/or negative impact of the online (i.e., Blackboard) structured journal on your coaching.

3. Please discuss your thoughts and perception of the structured prompts.
## APPENDIX L

### LEVELS OF REFLECTION RUBRIC

<table>
<thead>
<tr>
<th>Levels of Reflection</th>
<th>Level 1 Reflectivity</th>
<th>Level 2 Affective Reflectivity</th>
<th>Level 3 Discriminant Reflectivity</th>
<th>Level 4 Judgmental Reflectivity</th>
<th>Level 5 Conceptual Reflectivity</th>
<th>Level 6 Theoretical Reflectivity</th>
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</thead>
<tbody>
<tr>
<td>Criteria</td>
<td>Illustrates the ability to discuss and describe experiences or observations</td>
<td>Expresses an awareness to the individual’s own feelings</td>
<td>Demonstrates an assessment of a decision making process, or evaluation of planning or coaching practices</td>
<td>Displays awareness of value judgments (i.e., rightfulness, wrongfulness, or usefulness of something) and the subjective nature of these</td>
<td>Demonstrates an assessment of whether further learning is required or they had learned from their experience</td>
<td>Exhibits an awareness that routine or taken-for-granted practice may not be the complete answer and there is an obvious demonstration of learning or change in perspective</td>
</tr>
</tbody>
</table>
APPENDIX M

THE UNIVERSITY OF SOUTHERN MISSISSIPPI INFORMED CONSENT

Researchers at the University of Southern Mississippi are conducting a study on the influence of the coach education practicum experience on self-reflection and insight. We are most interested in your current level of self-reflection. As a coach education practicum student, we are requesting your voluntary participation in this study. Your participation will not take up any additional time. Your participation will allow the researchers to access your self-reflection questionnaire and writing assignments for this class. Because this study is completely voluntary, your grades will not be affected in anyway by participation in this study. You are free to withdraw from participation at any time with no academic penalty.

As a participant in this study your identity and any identifiable information that the researcher obtains will be kept confidential. Your information will not be shared with others without your written permission. Your identity will be coded using an ID number on all forms. The surveys will be separated from the consent forms to protect your identity. All forms containing your identity will be locked in Clayton Kuklick’s office where he will only have access. Finally, your identity will not be exposed in any publication of this research.

There are no known risks associated with participation in this study. This study has the potential to benefit coach education programs by providing information about the value of the practicum experience. Participants will be entered into a raffle with a chance to win a 20$ gift card. If you have any further questions about this study, please feel contact Clayton Kuklick via email at clayton.kuklick@eagles.usm.edu or his advisor, Dr. Brian Gearity at brian.gearity@usm.edu.

This project has been reviewed by the Human Subjects Protection Review committee, which ensures that researcher projects involving human subjects follow federal regulations. Any question or concerns about rights as a research subject should be directed to the chair of the Institutional Review Board, the University of Southern Mississippi, 118 College Dr. #5147, Hattiesburg, MS 39406-001; (601) 266-6820. Your signature below signifies your consent to volunteer in this study and that the researcher will have access to your course work used for data collection.

___Clayton Kuklick_________ _________________ Date
Name of Researcher Signature

_________________________ ______________________ Date
Name of Participant Signature

Please sign both copies
Keep one copy and return one copy to the researcher
APPENDIX N

RESEARCH GROUP MEMBER’S PLEDGE OF CONFIDENTIALITY

As a member of this research group, I understand that I will be examining confidential data, collected for the study “Reflective Practice in Coach Education Practicum”. The information collected from the Self-Reflection and Insight Scale, practical papers, online structured reflective journal responses, and the open ended post practicum reflections has been revealed by research participants who participated in this study in good faith and with the understanding that their data would remain strictly confidential. I understand that I have a responsibility to honor this confidentiality agreement. I hereby agree not to share any information in these data sources with anyone except Clayton Kuklick, the primary researcher of this project, Dr. Brian Gearity, his doctoral chair, or other members of this research group. Any violation of this agreement would constitute a serious breach of ethical standards, and I pledge not to do so. By signing below I agree to the terms listed above.

RESEARCH GROUP MEMBER’S SIGNATURE

___________________________________  _______________

DATE

___________________________________  _______________

___________________________________  _______________

___________________________________  _______________
APPENDIX O

EXAMPLE OF REFLECTIVE RESPONSE FOR PROMPT 2

This has been the third week of my coaching practicum. In the first week of my practicum my head coach had each of the players fill out goal sheets. The purpose of these goal sheets were to get the players to write down one outcome, one performance, and one process goal that they would like to achieve during this season. The head coach and I then met with each player individually to discuss and to improve on each of the athlete’s goals. These meetings were to ensure that each of the goals was Specific, Measurable, Assignable, Realistic, and Time related (S.M.A.R.T). I had remembered learning about the criteria to guide goal setting in my sport psychology class. I thought this process went really well. It was beneficial for the athletes to not only learn how to set goals, but it also gave them a plan for their success as an athlete. In the two weeks following goal setting and our individual meetings with each athlete, I noticed that the athletes were really engaged in their goals. I had noticed that they were focusing and working hard on their process goals. I was amazed at how great this was working. I also had many athletes ask me to stay with them after practice to help with things they wanted to work on that were related to their goals. However, the dilemma that I have most recently attended to is that the athletes have not been focusing on their goals like they were the first two weeks. This week the athletes have stopped asking for extra help. I have also noticed that the athletes have not been working on their process goals this week during practice either. It seems as if the athletes have forgotten about their goals completely. It is important that the athletes’ are taking their goals seriously because they can have a positive impact on their development as an athlete. These goals also make the athletes accountable for their development and provide motivation for them to be successful. If the athletes have forgotten or are no longer engaged in their goals, their development and performance will be negatively impacted. The head coach and I really need address this issue in some way before it’s too late.
APPENDIX P
CODE MAP OF ANALYTIC THEMES

*Code mapping themes 1 and 2: Three iterations of analysis (to be read from the bottom up: Anfara et al., 2002)*

<table>
<thead>
<tr>
<th>Third Iteration: Student’s Role Frames</th>
<th>Theme 2: Developing Athletes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theme 1: Initial Perception of Coaching</td>
<td>Theme 2: Developing Athletes</td>
</tr>
<tr>
<td>1a Coaching is easy</td>
<td>2a Understanding Athletes</td>
</tr>
<tr>
<td>1b Coaching is challenging</td>
<td>2b Instructional Strategies</td>
</tr>
<tr>
<td>Second Iteration: Clusters of similar meaning units</td>
<td>2c Technical/Tactical Skills Development</td>
</tr>
<tr>
<td>1a Failed to understand how much time</td>
<td>2d Life Skills Development</td>
</tr>
<tr>
<td>1a Failed to understand how much discipline</td>
<td></td>
</tr>
<tr>
<td>1a Failed to understand all the little things</td>
<td></td>
</tr>
<tr>
<td>1a Failed to understand all the organization</td>
<td></td>
</tr>
<tr>
<td>1b Belief that there is limited time and space</td>
<td></td>
</tr>
<tr>
<td>1b Belief that coaching takes up time</td>
<td>2a Coaching style is to understand athletes</td>
</tr>
<tr>
<td></td>
<td>2b Coaching style is to understand athletes' emotions</td>
</tr>
<tr>
<td></td>
<td>2a Understand how athletes take criticism</td>
</tr>
<tr>
<td></td>
<td>2b Individualized instruction</td>
</tr>
<tr>
<td></td>
<td>2b Giving some control to players</td>
</tr>
<tr>
<td></td>
<td>2b Demonstrating for athletes</td>
</tr>
<tr>
<td></td>
<td>2b Keep athletes moving</td>
</tr>
<tr>
<td></td>
<td>2b Being consistent in planning</td>
</tr>
<tr>
<td></td>
<td>2b All athletes are different</td>
</tr>
<tr>
<td></td>
<td>2c Teaching fundamentals</td>
</tr>
<tr>
<td></td>
<td>2c Teaching athletes technique</td>
</tr>
<tr>
<td></td>
<td>2c Develop athletes’ technical skills</td>
</tr>
<tr>
<td></td>
<td>2c Help athletes understand their sport</td>
</tr>
<tr>
<td></td>
<td>2c Most fulfilling thing is watching athletes grow fundamentally</td>
</tr>
<tr>
<td></td>
<td>2c Most fulfilling thing is to watch athletes get better in their skills</td>
</tr>
<tr>
<td></td>
<td>2d Coaching style is to change athletes’ lives</td>
</tr>
<tr>
<td></td>
<td>2d Coaching style is to push athletes academically and physically</td>
</tr>
<tr>
<td></td>
<td>2d Coaching style is to push athletes to meet goals</td>
</tr>
<tr>
<td></td>
<td>2d Coaching style is to push athletes to overcome obstacles</td>
</tr>
<tr>
<td></td>
<td>2d Coaching style is to develop athletes’ life skills</td>
</tr>
<tr>
<td></td>
<td>2d Values are to have athletes succeed in life</td>
</tr>
<tr>
<td></td>
<td>2d Most fulfilling this is watching athletes come better people</td>
</tr>
</tbody>
</table>

Note: Initial codes or meaning units were given a number and letter (i.e., 1a, 1a, 1a, 1b, 1b, 1b…) based on their similarities from the raw data. The second iteration involved clustering the initial codes (i.e., 1a, 1b, 1c), and the third iteration involved categorizing these clusters (i.e., theme 1, theme 2).
**Code mapping themes 3 and 4: Three iterations of analysis (to be read from the bottom up; Anfara et al., 2002)**

<table>
<thead>
<tr>
<th>First Iteration: Initial codes/meaning units</th>
<th>Second Iteration: Clusters of similar meaning units</th>
<th>Third Iteration: Student’s Role Frames</th>
</tr>
</thead>
<tbody>
<tr>
<td>3a Encourage athletes</td>
<td>4a Supporting Athletes</td>
<td>Theme 3: Creating a Positive Environment</td>
</tr>
<tr>
<td>3a Being positive to athletes</td>
<td>4a There is a need for team rules</td>
<td></td>
</tr>
<tr>
<td>3a Being nice to athletes</td>
<td>4a There are many ways to punish a player</td>
<td></td>
</tr>
<tr>
<td>3b Develop trust</td>
<td>4a Makes players accountable for playing time</td>
<td></td>
</tr>
<tr>
<td>3b Show care</td>
<td>4a A coach needs to be strict and hard</td>
<td></td>
</tr>
<tr>
<td>3b Develop relationships with athletes</td>
<td>4a Take star player out to get the most out of a player</td>
<td></td>
</tr>
<tr>
<td>3b Showing love for athletes</td>
<td>4a Know the right time for discipline</td>
<td></td>
</tr>
<tr>
<td>3c Have fun with athletes</td>
<td>4a Coaching style is to be aggressive and demanding</td>
<td></td>
</tr>
<tr>
<td>3c Showing passion</td>
<td>4a Values are to punish athletes’ inappropriate actions</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4a Values are to balance discipline and being nice</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4a Have respect but be authoritative</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4b To not show favoritism</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4b Act appropriately</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4b To give equal opportunities</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4b Weaker athletes are unable to get better</td>
<td></td>
</tr>
</tbody>
</table>

Note: Initial codes or meaning units were given a number and letter (i.e., 3a, 3a, 3a, 3b, 3b, 3b…) based on their similarities from the raw data. The second iteration involved clustering the initial codes (i.e., 3a, 3b, 3c), and the third iteration involved categorizing these clusters (i.e., theme 3, theme 4).
### Third Iteration: Student’s Self-Identified Weaknesses

**Theme 1: Weaknesses in Role Frame**

**Theme 2: Strategies to Overcome Weaknesses**

**Second Iteration: Clusters of similar meaning units**

<table>
<thead>
<tr>
<th>First Iteration: Initial codes/meaning units</th>
<th>Second Iteration: Clusters of similar meaning units</th>
</tr>
</thead>
<tbody>
<tr>
<td>1a Weakness is throwing strikes during batting practices</td>
<td>2a Reflection</td>
</tr>
<tr>
<td>1a Weakness is giving too much feedback</td>
<td>2a Strategy is to experiment</td>
</tr>
<tr>
<td>1a Weakness is giving too much information</td>
<td>2a Strategy is to treat athletes like they were own children</td>
</tr>
<tr>
<td>1a Weakness is providing personal experiences</td>
<td>2a Strategy is to reflect on previous experiences</td>
</tr>
<tr>
<td>1a Weakness is assuming athletes understand</td>
<td>2b Mentoring</td>
</tr>
<tr>
<td>1a Weakness is thinking there is only one way to coach</td>
<td>2c Experience</td>
</tr>
<tr>
<td>1a Weakness is game planning</td>
<td>2c Strategy is to adjust</td>
</tr>
<tr>
<td>1b Weakness is hesitation to be outspoken</td>
<td>2c Strategy is to be more confidence</td>
</tr>
<tr>
<td>1b Weakness is dealing with athletes that are close in age</td>
<td>2c Strategy is to correct it</td>
</tr>
<tr>
<td>1b Weakness is being too tentative and speaking up</td>
<td>2c Strategy is to gain experience</td>
</tr>
<tr>
<td>1b Weakness is being too shy</td>
<td>2c Strategy is to work on it</td>
</tr>
<tr>
<td>1b Weakness is not having confidence</td>
<td>2d Strategy is to be tougher on athletes</td>
</tr>
<tr>
<td>1b Weakness is being too nice</td>
<td>2d Strategy is to be more vocal</td>
</tr>
<tr>
<td>1b Weakness is making athletes feel too comfortable</td>
<td>2d Strategy is to demonstrate ability to coach</td>
</tr>
<tr>
<td>1b Weakness is the need to be more authoritative</td>
<td>2d Strategy is use team building activities to gain respect</td>
</tr>
<tr>
<td>1c Weakness is controlling anger when athletes make mistakes</td>
<td>2d Strategy is to teach players foundation</td>
</tr>
<tr>
<td>1c Weakness is impatience with athletes</td>
<td>2d Strategy is to model good physical activity levels</td>
</tr>
<tr>
<td>1c Weakness is being able to cope with athlete lack of effort</td>
<td>2d Strategy is to be more patient</td>
</tr>
</tbody>
</table>

**Note:** Initial codes or meaning units were given a number and letter (i.e., 1a, 1a, 1a, 1b, 1b, 1b...) based on their similarities from the raw data. The second iteration involved clustering the initial codes (i.e., 1a, 1b, 1c), and the third iteration involved categorizing these clusters (i.e., theme 1, theme 2).
Code mapping theme 3: Three iterations of analysis (to be read from the bottom up; Aofara et al., 2002)

Third Iteration: Student’s Self-Identified Weaknesses

Theme 3: Creating a Positive Environment

Second Iteration: Clusters of similar meaning units

3a Inability to Improve Athletes’ Technical/Tactical Skills
3b Underperforming in a Dominating Role as a Coach
3c Over Performing in a Dominating Role as a Coach

First Iteration: Initial codes/meaning units

3a Athletes would change the student not always playing the best player
3a Athletes would change the amount of feedback students give
3a Athletes would want the student to both explain and demonstrate skills
3b Athletes would want student to be more aggressive
3b Athletes would want coach to be more vocal
3b Coaches would say student gets too caught up in games
3b Coaches would say student has too much fun with athletes
3b Coaches would say student needs to speak up and be more vocal
3b Coaches would say student contains too many behaviors of previous coaches
3c Athletes would change students’ high expectations
3c Athletes would want athlete to be more laid back
3c Coaches would say student does not have patience
3c Athletes would change how student pushes athletes in the weight room
3c Coaches would say student micromanages athletes

Note: Initial codes or meaning units were given a number and letter (i.e., 3a, 3a, 3a, 3b, 3b, 3b…) based on their similarities from the raw data. The second iteration involved clustering the initial codes (i.e., 3a, 3b, 3c), and the third iteration involved categorizing these clusters (i.e., theme 3).
Code mapping themes 1 and 2: Three iterations of analysis (to be read from the bottom up; Anfara et al., 2002)

<table>
<thead>
<tr>
<th>Third Iteration: Student’s Dilemma Identification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theme 1: Athletes’ Underperformance</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Iteration: Clusters of similar meaning units</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1a Technical/Tactical Skills</td>
<td>2a Game Strategies</td>
</tr>
<tr>
<td>1b Motivation</td>
<td>2b Coaching Strategies to Enhance Performance</td>
</tr>
<tr>
<td>1c Ethical Behaviors</td>
<td>2c Being Fair</td>
</tr>
<tr>
<td>1d Psychological Skills</td>
<td>2d Demonstrating Appropriate Behaviors</td>
</tr>
<tr>
<td>1e Accepting the Dominating Role</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>First Iteration: Initial codes/meaning units</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1a Athletes not keeping glove down</td>
<td>2a Decision to replace athlete who is not playing well</td>
</tr>
<tr>
<td>1a Athletes took wrong angel</td>
<td>2a Decision to call time out</td>
</tr>
<tr>
<td>1a Athlete keeps making errors</td>
<td>2a Decision to play lesser athlete</td>
</tr>
<tr>
<td>1a Athlete not hitting well</td>
<td>2a Decision to take out player when loosing</td>
</tr>
<tr>
<td>1a Athlete not playing up to capabilities</td>
<td>2a Practicum coach did not position players well</td>
</tr>
<tr>
<td>1a Athlete had four fouls at end of game</td>
<td>2b Keeps changing how things are being run</td>
</tr>
<tr>
<td>1a Practice has not changed performance</td>
<td>2b Not interacting with athletes</td>
</tr>
<tr>
<td>1a Unifying older athletes with younger athletes</td>
<td>2b Did not care that athletes were not do drill correctly</td>
</tr>
<tr>
<td>1a Athlete did not understand what the coach was teaching</td>
<td>2b Overworking players</td>
</tr>
<tr>
<td>1a Two seniors were not playing well</td>
<td>2c Practicum coach focuses on star athlete</td>
</tr>
<tr>
<td>1b Athletes did not respond to motivational approach</td>
<td>2c Showed favoritism by not disciplining</td>
</tr>
<tr>
<td>1b Athletes lack motivation</td>
<td>2d Practicum coach get furious with athlete</td>
</tr>
<tr>
<td>1b Athletes became lazy</td>
<td>2d Practicum coach did not cancel</td>
</tr>
<tr>
<td>1b To get athletes to play hard for nine innings</td>
<td>2d Practicum coach not showing up to practice</td>
</tr>
<tr>
<td>1b Athletes do not understand hard work</td>
<td>2d Practicum coach treating others unprofessionally</td>
</tr>
<tr>
<td>1b Athletes do not want to work hard</td>
<td></td>
</tr>
<tr>
<td>1b Athletes wanted to quit</td>
<td></td>
</tr>
<tr>
<td>1c Athletes are bullying another athlete</td>
<td></td>
</tr>
<tr>
<td>1c Athletes showing poor sportsmanship</td>
<td></td>
</tr>
<tr>
<td>1c Athletes engaging in sexual harassment behaviors</td>
<td></td>
</tr>
<tr>
<td>1d Athlete takes at bat out into the field</td>
<td></td>
</tr>
<tr>
<td>1d Team was losing to a team they should be beating</td>
<td></td>
</tr>
<tr>
<td>1d Athletes were losing focus</td>
<td></td>
</tr>
<tr>
<td>1d Athletes did not believe in themselves</td>
<td></td>
</tr>
<tr>
<td>1d Athletes were overconfident</td>
<td></td>
</tr>
<tr>
<td>1e Athlete was not listening to student</td>
<td></td>
</tr>
<tr>
<td>1e Athlete was giving an attitude to coaches and teammates</td>
<td></td>
</tr>
<tr>
<td>1e Athlete was being sarcastic</td>
<td></td>
</tr>
<tr>
<td>1e Athlete did not respond to practicum coach’s discipline</td>
<td></td>
</tr>
<tr>
<td>1e Athlete did not do what student asked</td>
<td></td>
</tr>
<tr>
<td>1e Athletes do not listen</td>
<td></td>
</tr>
<tr>
<td>1e Athletes disrespected coaching staff by being inappropriate</td>
<td></td>
</tr>
</tbody>
</table>

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Code mapping theme 3: Three iterations of analysis (to be read from the bottom up; Aofara et al., 2002)

<table>
<thead>
<tr>
<th>Third Iteration: Student’s Dilemma Identification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theme 3: Disruption in Everyday Routines</td>
</tr>
<tr>
<td>Second Iteration: Clusters of similar meaning units</td>
</tr>
<tr>
<td>3a Apparent</td>
</tr>
<tr>
<td>3b Personal Troubles</td>
</tr>
<tr>
<td>3c Environmental</td>
</tr>
<tr>
<td>First Iteration: Initial codes/meaning units</td>
</tr>
<tr>
<td>3a Athlete misses game</td>
</tr>
<tr>
<td>3a Athlete loses family member</td>
</tr>
<tr>
<td>3a Athlete gets injured</td>
</tr>
<tr>
<td>3a Athlete gets in a fight</td>
</tr>
<tr>
<td>3a Athlete breaks team rules</td>
</tr>
<tr>
<td>3a Athlete does not show up to practice</td>
</tr>
<tr>
<td>3a Practicum coach is leaving for another job</td>
</tr>
<tr>
<td>3a Athletes lost a game on purpose</td>
</tr>
<tr>
<td>3a Athlete is not happy with playing time</td>
</tr>
<tr>
<td>3b Student’s daughter asks to play football because of need for players</td>
</tr>
<tr>
<td>3b Student coaches against his brother</td>
</tr>
<tr>
<td>3b Parent confronted student about an athlete’s playing time</td>
</tr>
<tr>
<td>3c Athletes from another sports team was interrupting practice</td>
</tr>
<tr>
<td>3c Weather conditions were predicted to be unsafe</td>
</tr>
</tbody>
</table>

Note: Initial codes or meaning units were given a number and letter (i.e., 3a, 3a, 3a, 3b, 3b, 3b…) based on their similarities from the raw data. The second iteration involved clustering the initial codes (i.e., 3a, 3b, 3c), and the third iteration involved categorizing these clusters (i.e., theme 3).
Code mapping themes 1 and 2: Three iterations of analysis (to be read from the bottom up; Anfara et al., 2002)

<table>
<thead>
<tr>
<th>Third Iteration: Student’s Responses to Dilemmas</th>
<th>Second Iteration: Clusters of similar meaning units</th>
<th>First Iteration: Initial codes/meaning units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theme 1: Enforcing a Dominating Role</td>
<td>2a Un-assisted Response</td>
<td>1a Response was to let athletes police themselves</td>
</tr>
<tr>
<td></td>
<td>2a Un-assisted Response</td>
<td>1a Response was to make athletes run</td>
</tr>
<tr>
<td></td>
<td>2a Un-assisted Response</td>
<td>1a Response was to have a challenge between athletes</td>
</tr>
<tr>
<td></td>
<td>2a Un-assisted Response</td>
<td>1a Response was to jump on players</td>
</tr>
<tr>
<td></td>
<td>2a Assisted Response</td>
<td>1a Response was to make athlete’s be quiet</td>
</tr>
<tr>
<td></td>
<td>2a Assisted Response</td>
<td>1a Response was to react in an angered manner</td>
</tr>
<tr>
<td></td>
<td>2a Assisted Response</td>
<td>1a Response was to confront assistant coach</td>
</tr>
<tr>
<td></td>
<td>2a Assisted Response</td>
<td>1a Response was to make athlete continue with competition</td>
</tr>
<tr>
<td></td>
<td>2a Assisted Response</td>
<td>1a Student is serious on the field</td>
</tr>
<tr>
<td></td>
<td>2b Assisted Response</td>
<td>1b Coaching staff punished athlete</td>
</tr>
<tr>
<td></td>
<td>2b Assisted Response</td>
<td>1b Coaching staff implemented new rules</td>
</tr>
<tr>
<td></td>
<td>2b Assisted Response</td>
<td>1b Coaching staff broke up fight</td>
</tr>
<tr>
<td></td>
<td>2b Assisted Response</td>
<td>1b Coaching staff benched athlete</td>
</tr>
<tr>
<td></td>
<td>2b Assisted Response</td>
<td>1b Coaching staff made the athletes run</td>
</tr>
<tr>
<td></td>
<td>2b Assisted Response</td>
<td>1b Coaching staff held a meeting with athletes</td>
</tr>
<tr>
<td></td>
<td>2b Assisted Response</td>
<td>1b Coaching staff confronted team</td>
</tr>
</tbody>
</table>

Note: Initial codes or meaning units were given a number and letter (i.e., 1a, 1a, 1a, 1b, 1b...) based on their similarities from the raw data. The second iteration involved clustering the initial codes (i.e., 1a, 1b, 1c), and the third iteration involved categorizing these clusters (i.e., theme 1, theme 2).
**Code mapping theme 3 and 4: Three iterations of analysis (to be read from the bottom up; Anfara et al., 2002)**

<table>
<thead>
<tr>
<th>Third Iteration: Student’s Responses to Dilemmas</th>
<th>Theme 4: Tactical and Administrative Planning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theme 3: Instructional Strategies</td>
<td></td>
</tr>
<tr>
<td>Second Iteration: Clusters of similar meaning units</td>
<td></td>
</tr>
<tr>
<td>3a Un-assisted Response</td>
<td>4a Un-assisted Response</td>
</tr>
<tr>
<td>3b Assisted Response</td>
<td>4b Assisted Response</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>First Iteration: Initial codes/meaning units</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>3a Student used team building exercises</td>
<td>4a Student yelled to practicum coach to let it play out</td>
</tr>
<tr>
<td>3a Student limited the athletes’ workload</td>
<td>4a Student understands what athletes are best for events</td>
</tr>
<tr>
<td>3a Student worked with athlete individually</td>
<td>4a Student works on game situations with athletes</td>
</tr>
<tr>
<td>3a Student understands not all athletes are going to be great</td>
<td>4b Coaching staff left athlete in the game</td>
</tr>
<tr>
<td>3a Student better understands athletes</td>
<td>4b Coaching staff gave second string athlete a chance</td>
</tr>
<tr>
<td>3a Student implements new drills</td>
<td></td>
</tr>
<tr>
<td>3a Student uses more demonstrations</td>
<td></td>
</tr>
<tr>
<td>3a Student makes sure athletes understand drills</td>
<td></td>
</tr>
<tr>
<td>3a Student has athletes stay after practice</td>
<td></td>
</tr>
<tr>
<td>3a Student provides less time for instruction</td>
<td></td>
</tr>
<tr>
<td>3b Letting the team set team goals</td>
<td></td>
</tr>
</tbody>
</table>

Note: Initial codes or meaning units were given a number and letter (i.e., 3a, 3a, 3a, 3b, 3b…) based on their similarities from the raw data. The second iteration involved clustering the initial codes (i.e., 3a, 3b, 3c), and the third iteration involved categorizing these clusters (i.e., theme 3 and 4).
**Code mapping theme 5: Three iterations of analysis (to be read from the bottom up; Aofara et al., 2002)**

<table>
<thead>
<tr>
<th>Third Iteration: Student’s Responses to Dilemmas</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Theme 5: Generated Strategies</strong></td>
</tr>
<tr>
<td>5a Enforce a Dominating Role</td>
</tr>
<tr>
<td>5b Develop a positive Environment</td>
</tr>
<tr>
<td>5c Instructional</td>
</tr>
<tr>
<td>5d Tactical and Administrative Planning</td>
</tr>
<tr>
<td>5e No strategies Generated</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Iteration: Clusters of similar meaning units</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Iteration: Initial codes/meaning units</td>
</tr>
<tr>
<td>5a Student could yell at athletes</td>
</tr>
<tr>
<td>5a Student could punish all athletes that don obey rules</td>
</tr>
<tr>
<td>5a Strategy would be to just tell athlete no and why</td>
</tr>
<tr>
<td>5a Student could take athlete out of game when not playing well</td>
</tr>
<tr>
<td>5a Student would have made the other athletes from the other team leave the practice</td>
</tr>
<tr>
<td>5a Student could have told practicum coach</td>
</tr>
<tr>
<td>5a Student could have talked with practicum coach instead of letting athletes play</td>
</tr>
<tr>
<td>5a Strategy would be to make sure the assistant knows what is going on before letting them have control</td>
</tr>
<tr>
<td>5b Student could have asked why athletes were late</td>
</tr>
<tr>
<td>5b Student could make athletes write an essay</td>
</tr>
<tr>
<td>5b Student could talk to the athlete individually</td>
</tr>
<tr>
<td>5b Student could stop athletes before that incident escalated</td>
</tr>
<tr>
<td>5b Student would be more organized and talk with athletes individually to find out truth</td>
</tr>
<tr>
<td>5b Student could have spoken up for athlete instead of letting practicum coach yell</td>
</tr>
<tr>
<td>5b Student could be more encouraging to athlete</td>
</tr>
<tr>
<td>5b Student could talk with athlete to see how she was</td>
</tr>
<tr>
<td>5b Student would work just as hard as athletes</td>
</tr>
<tr>
<td>5c Strategy would be to work with athlete individually</td>
</tr>
<tr>
<td>5c Strategy would be to have an alternate plan</td>
</tr>
<tr>
<td>5c Strategy would be let athletes work on their own</td>
</tr>
<tr>
<td>5c Strategy is to continue to work on knowing the athletes</td>
</tr>
<tr>
<td>5c Strategy would be to communicate a plan for athletes to get better</td>
</tr>
<tr>
<td>5d Strategy would be to let athlete stay in game with four fouls</td>
</tr>
<tr>
<td>5d Strategy would be to play the game a day earlier</td>
</tr>
<tr>
<td>5d Strategy would be to stay on eligibility paper work</td>
</tr>
<tr>
<td>5d Strategy would be to have two line ups</td>
</tr>
<tr>
<td>5d Strategy is to figure out when to call hit and run</td>
</tr>
<tr>
<td>5d Strategy would be to have more assistant coaches</td>
</tr>
<tr>
<td>5d Strategy would be to keep a journal</td>
</tr>
<tr>
<td>5e Student experienced a satisfactory outcome</td>
</tr>
</tbody>
</table>

Note: Initial codes or meaning units were given a number and letter (i.e., 3a, 3a, 3a, 3b, 3b, 3b…) based on their similarities from the raw data. The second iteration involved clustering the initial codes (i.e., 3a, 3b, 3c), and the third iteration involved categorizing these clusters (i.e., theme 3).
An audit trail is a chronological record that provides evidence for the data collection and analysis procedures. The following procedures provide evidence for the trustworthiness of this project. The numbers listed below in parentheses display the number of times I read each of the participant’s online structured reflective journals. The online structured journals were collected and analyzed concurrently each week. The data sources were coded using descriptive, in vivo and holistic coding methods (Saldaña, 2013).

First, I collected and read the participants’ submitted online structured reflective journal responses. I then uploaded the data into QSR Nvivo 10 and then read each of the participant’s responses within two days of them being collected (1). I then typed notes to get a sense of the data as a whole (2). I then completed the 1st iteration of data analysis by reading and analyzing each of the participant’s reflection responses separately to create meaning units (3). I then completed the 2nd iteration of data analysis by constantly comparing the meaning units of each participant’s responses. I then grouped these meaning units into similar categories. Subsequently, I then brought each of the participant’s reflection responses to the experienced qualitative researcher for analysis and peer debriefing. I then typed notes across each of the reflection responses for the purpose of developing the thematic structure (4).

In the analysis of the weekly online structured journals, I then collected and analyzed all of the remaining data each week following the same outline as described above: collect the submitted reflection responses—upload into Nvivo—read each participant’s response in order to gain a sense of the data as a whole—typed individual notes and general notes across each of the participant’s reflection responses—completed the 1st iteration by creating meaning units—completed the 2nd iteration by constantly comparing the similarities and differences of meaning units—peer debriefing—type notes for the purpose of developing thematic structure.

Subsequently, upon collecting and completing the 2nd iteration of analysis on all of the data, I then engaged the 3rd iteration of data analysis. The 3rd iteration of data analysis consisted of me constantly comparing the categories that resulted from the 2nd iteration of the data analysis procedures across all of participants and reflection responses. I read all of the reflection responses individually relative of the overall thematic structure (5). I then typed more notes and slightly altered the thematic structure. This completed the second draft of the thematic structure.

I presented the second draft of the thematic structure to the experienced qualitative research. From the discussion during this meeting with the experienced researcher, the content of the themes remained unchanged; however I adjusted the thematic structure to use consistent language. I subsequently read all of the reflection responses to confirm the thematic structure (6).
Having read and analyzed each transcript no less than six times, I determined that the thematic structure was complete.

I then again took the completed thematic structure to the qualitative researcher, where he probed me as to why I interpreted the initial meaning units, 2nd iteration, and themes as such (7). A few modest adjustments were made to the thematic structure.

The modifications entailed changing the category Student’s Responses to Dilemmas sub-theme, strategy generation, in Enforcing a Dominating Role as a Coach, Developing a Positive Environment, Instructional Strategies, and Game and Administration Planning themes into a separate theme. Enforcing a dominating role as a coach, developing a positive environment, instructional strategies, and game and administration planning then became sub-themes in the theme Strategy Generation.
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