OBSERVATIONS OF INDIVIDUALS’ BEHAVIORS IN THE PHYSICAL EDUCATION ENVIRONMENT AND COACHING ENVIRONMENT

A Thesis

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by

Kristen Vargas-Vigil

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OBSERVATIONS OF INDIVIDUALS’ BEHAVIORS IN THE PHYSICAL EDUCATION ENVIRONMENT AND COACHING ENVIRONMENT

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Department of Kinesiology
Abstract

of

OBSERVATIONS OF INDIVIDUALS’ BEHAVIORS IN THE PHYSICAL EDUCATION ENVIRONMENT AND COACHING ENVIRONMENT

by

Kristen Vargas-Vigil

Statement of Purpose

Previous researchers have focused on the feedback behaviors of an individual that coaches, as well as individuals that teach physical education. However, the feedback behaviors of an individual in the dual role of physical educator and coach have been undetermined. The purpose of this study was to observe the feedback behaviors of an individual in the dual role of physical educator and coach. This study focused on observing individuals giving verbal and non-verbal feedback to students in their role as a physical educator and giving feedback to athletes in their role as a coach.

Sources of Data

Observations of three individuals that coached and taught physical education at the secondary level took place for data purposes. A modified version of the Arizona State University Observation Instrument was used to collect data.

Conclusions Reached

There are many variables that affect the behaviors of the coach or teacher. Providing proper feedback may affect player or student performance. Performance goals should be similar in both environments. Providing specific congruent feedback may benefit students and athletes. Coaches
may have more knowledge in the sport they coach compared to the unit they teach, effecting the
delivery of feedback in the two different environments. The coach may have a more controlled
environment than the physical education teacher due to number of participants and environment
size. In the future, researchers should focus on the rate per minute feedback is being delivered.
Due to the difference in the class size of a physical education class and the number of athletes
being coached, the rate of feedback varied. Comparing the feedback ratio (feedback to students or
athletes) in the two different environments is also recommended for future studies.

_______________________, Committee Chair
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_________________________
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CHAPTER 1

Introduction

Verbal and non-verbal feedback is an important part of skill development. Verbal feedback can be positive or negative, specific and congruent, or simple and non-specific. According to Silverman, Tyson, and Krampitz (1992), feedback may increase or decrease an individual’s performance and/or self confidence. There are different types of feedback that can be delivered to an individual who is working toward improvement of a motor skill specific to the sport being coached or taught. The amount of feedback and the types of feedback given, may play a role when developing an individual’s skill level. It is important for an individual in the dual role as coach and physical educator to understand the benefits of feedback and how to deliver feedback to better the performance of their student or athlete (Cushion & Jones, 2001). (As an individual working with students and athletes) it is important to know when, how much, and what types of feedback to deliver to your athletes and students.

In the classroom and on the athletic playing field, a person in the dual role of coach and teacher may elicit different behaviors. Teachers may have more students than a coach has athletes. In this case, the coach would have more time to work with each athlete. The coach is focused in one area, and typically will have additional coaching staff to assist them. The coach may be more comfortable in the coaching environment than in the teaching environment because they may have a direct interest with the sport they are coaching. Because the environments are different, feedback may be different.
In a fast paced, quick moving coaching environment, providing the proper amount of feedback to maximize an athletes’ success may be easier said than done. Reverting back to delivering quick and simple feedback to the players that are being coached maybe an easy task due to the quick execution of skills. However, just acknowledging a player for doing a good job may or may not be quality feedback. The delivery of feedback during practice is the responsibility of the coach. Did the athlete execute the skill by following the fundamentals required for accuracy? Unless a coach specifically states what the player did well, or needs to improve on, the athlete may not be sure what part of the skill the coach is acknowledging. The player is not always able to recognize their mistake during game play (Wrisberg, 2007) without specific feedback from the coach. How then will that player know what to repeat or change during game play and practice? Specific and congruent feedback is important to skill improvement. For an individual who coaches and teaches, knowing the best way to increase an individual’s performance is important.

In the physical education environment, providing feedback to maximize student learning is an important task. In the teaching environment, class sizes are usually large in size, making it difficult to reach all students. During the progression of teaching skills, tasks must relate to an objective or measurement allowing opportunities to deliver feedback to the task at hand. Skills should be simplified and later transferred to game play (Rink, 2006). In the teaching environment delivering additional feedback may be challenging due to time constraints. In comparing the teaching environment to the coaching environment, coaches are under pressure to refine each skill in order to have a
successful season. In the teaching environment teachers strive to teach subject matter. When a skill is not being met, a teacher may schedule additional time to teach the skill. In this case, the teacher can take the additional time because the teacher is not under pressure to prepare for competition.

Physical education teachers and coaches should provide corrective, descriptive, or positive feedback to motivate students and to improve skills. Different types of feedback delivered before, during, or after the execution of a skill may affect players or student progress in a positive and or negative manner (Silverman et al., 1992). Verbal and non-verbal types of feedback are delivered to the athlete and student in the hopes that their performance will be modified and they will be motivated to understand the material.

The benefits to the coach and teacher may be motivated students who are willing to participate in activities and continue to strive toward excellence. The benefits to the students and athletes are learning how to push their bodies in a motivating and safe environment while learning about the health and welfare of their bodies and improving their physical abilities. How then, do the individual’s use their knowledge of verbal and non-verbal feedback pattern behaviors in their dual role of teaching physical education and coaching a sport?

Cushion, Armour, and Jones (2003) found that some coaches develop their coaching tactics through their hands-on athletic experiences and what they learn from other coaches. Experience and the observation of other coaches remain the primary source of knowledge for coaches. Coaches learn from observing other successful coaches during game play and practices. Coaches gain additional strategies and ideas
from coaches in their league or at different levels. Coaches will try out these strategies and ideas and adapt them as needed to benefit their needs in order to have a successful program (Cushion et al., 2003). With that said, are individuals who play a dual role as a physical educator and coach providing their students and athletes with the most beneficial types of feedback behaviors in both environments?

According to Horn (2002), feedback plays a major role in skill development and improvement. The more feedback a player receives while performing the skills, the more likely they will retain that feedback the next time they execute the skill. Knowing the amount of feedback to provide, as well as when to provide it, is important to being an effective coach and teacher. Smoll and Smith (2002) found that coaches should understand the importance and the effectiveness of instructing directly to the cues they are focusing on for the particular skill. For physical educators, teaching and utilizing the information is key. What type of verbal and non-verbal feedback patterns are individuals who partake in the dual role as a coach and a physical educator displaying in each environments?

Cushion et al. (2001) found feedback given about the proficiency of an individual’s response is an important part of learning a skill, and also affects player confidence. By understanding proper form, and practicing that form, athletes may improve their skill. Without the feedback, the athlete may be performing the skill with incorrect form, if so, they may not improve. Feedback is an essential element in motor-skill learning. Providing players with congruent feedback, which refers to the exact cues a player should execute, may contribute to better developing the player’s awareness of
what improves their performance. Doing this will re-emphasize the movement expected to be performed by the player. The congruent feedback will let the student know if they are performing the movement correctly or incorrectly. According to Wrisberg (2007) and Schmidt (1991), the quality of feedback provided by the coaching staff is important to encouraging player performance. Cumming, Smith, and Smoll (2006) support the idea that a coach’s feedback will influence the performance of an athlete. Effective coaching includes quality feedback rather than increasing the amount of time feedback is delivered. Acknowledging a player in a positive manner after they perform a skill in practice is not quality, it is merely non-specific feedback which dilutes its effects (Schmidt, 1991). Coaches instructing to the task at hand directly may be more effective than coaches that do not exhibit these types of feedback behaviors. Providing concurrent instruction and post instruction provides the player with feedback pertaining specifically to the performance or an outcome of the skill the coach desires. Research of coaching behaviors has found verbal and non-verbal communication influences an athlete’s performance and their social and emotional well being. The research of Smoll and Smith (2002) supports the finding that individuals that provide positive or negative feedback toward a player effects their performance.

Coaches can make an impact and influence players through the feedback they provide. Smoll et al. (2002) found a coaches’ communication has a direct influence on player performance and behavior. Coaches who provide positive reinforcement after performance successes, and encouragement and technical instruction after mistakes reported a more positive sport experience (Smoll et al., 2002). Feedback can be verbal or
non-verbal. A coach throwing his clipboard and stomping his feet is a sign of disapproval or dissatisfaction in the players performance. The player is affected by this and may perform better or worse depending on the specific non-verbal action. Providing post-instructional feedback may be delivered in a positive or negative way, depending on how the athlete takes the feedback. This type of feedback would benefit the player or decrease the player’s confidence or motivation because the player will continue to work toward achieving the performance desired or perhaps feel badly about their performance and continue to perform poorly. Players may be positively or negatively affected by the feedback a coach delivers. In this study an individual’s verbal and non-verbal feedback in the dual role as physical educator and coach will be observed. According to Amorose and Horn (2000), the quality of the feedback the coach provides may contribute to the success of an athlete’s performance.

Statement of Purpose

The purpose of this study is to observe the feedback behaviors of an individual in the dual role of physical educator and coach. This study will focus on observing individuals giving verbal and non-verbal feedback to students in their role as a physical educator and giving feedback to athletes in their role as a coach. Many individuals in the dual role, become teachers in order to coach a sport they enjoyed playing (Ryan, 2008). Does that individual deliver the same feedback behaviors in both environments? An academic background in physical education may or may not benefit an individual in the dual environments, and likewise coaching may severely influence one’s teaching style.
Significance of Study

There is a need to review the amounts of feedback provided by individuals in two different environments. Being aware of the feedback and how it affects student learning will help the individual deliver feedback in both environments appropriately. Literature exists on how to be an effective teacher and a coach in the separate environments but does not compare an individual working in both. By observing the two environments, one may better understand feedback that is more or less effective in creating positive perceptions of physical movement. According to Horn (2002), understanding the types of feedback that are more or less effective for facilitating positive perception of ability is pertinent to coaches and physical education teachers. Studies have shown coaches become teachers in order to coach. However, there is a need to understand the similarities and differences in the deliverance of feedback in the dual role of a coach and physical education teacher. Understanding the effects of feedback one may be able to incorporate better coaching and teaching strategies into their environments. This observation will attempt to see if those patterns and behaviors exist. The majority of previous research focuses on teaching behaviors for physical educators and coaching behaviors for coaches separately. According to Martin, Rocca, Cayanus, and Weber (2009), researchers need to spend more energy investigating the similarities between coaching and teaching from an instructional feedback perspective. Often coaches and teachers may not use the right amount of feedback during their practice and lessons. They sometimes are not delivering specific and congruent feedback to their players or students when studies have shown specific feedback is more beneficial in player and
student improvement. The knowledge the coach may have retained through education may effectively increase performance by using the correct amount of verbal feedback. The significance of this study is to understand the deliverance of feedback in the dual role of a coach and physical education teacher to best incorporate coaching and teaching strategies into the two environments.

Limitations

In observing the feedback behaviors of an individual in the physical education environment and the coaching environment, this study will be limited to the following:

- Pre-planned lessons created by individual;
- Pre-planned practice schedules created by individual;
- Facilities.

Delimitations

Participants for this study have an educational background in physical education and currently coach. All subjects were willing to participate in this study. Individuals were required to live within a 70 mile radius of Tracy, California. Reliability of the data collected is limited to thirty minutes of the 30-55 minute lesson and practices. This study will include observations of three different individuals that each coach basketball and teach physical education. Using a modified version of the ASUOI observation tool, five feedback behaviors will be tallied to validate the data.

Assumptions

The basic assumptions for this study are: (a) all participants will not alter their deliverance of feedback; (b) lesson plans will be delivered as planned; (c) practice
schedules will be delivered as planned; (d) no modifications will be made due to observations for this study; (e) all subjects went through a program that taught the importance of feedback.

**Exploratory Research Question**

The overall goal for skill improvement exists in both environments. The two environments vary in different ways. The physical educator may teach class sizes of up to 40 students or more, where the coach typically has fewer athletes. Typically coaches have skilled athletes who are motivated and want to improve their skills. These students may work harder than the student who is mandated to attend a physical education class. Being aware of behaviors in the two environments may improve professional development. Knowing this how does an individual deliver feedback in the dual role as coach and physical education teacher?

**Definition of Terms**

**Augmented Feedback**- information provided to learners about the errors and achievements made in a performance (Tan, 1996, p. 151).

**Concurrent Instruction** – Cues or reminders given during the actual execution of the skill or play (Lacy & Darst, 1989, p. 371).

**General Positive Skill Feedback**- verbal or nonverbal praise that occurs during or following a general skill attempt. Examples: “Yes! “Great!”” A wink or a nod. A friendly pat on the back. (Tannehill and Burton, p. 384).
General Negative Skill Feedback- Verbal or nonverbal scolding that occurs during or following a general skill attempt. Examples: “You can do better than that! We are supposed to be a team.” A frown. Shaking the head. Throwing up the arms. (Tannehill and Burton, p. 385).

Hustle – Verbal statements intended to intensify the efforts of the player(s). Example: “run it out!” (Lacy & Darst, p. 371).

Management- Verbal statements related to organizational details of practice session not referring to strategies or fundamentals of the game; verbal interaction with assistant coaches (e.g., “Give me three lines facing me on the baseline” or “Coach, is your group ready for team offense?” (Lacy and Darst, p. 259).

Negative Modeling- A demonstration of incorrect performance of a skill or playing technique (Lacy & Darst, p. 259).

Positive Modeling- A demonstration of correct performance of a skill or playing technique (Lacy & Darst, p. 259).

Post Instruction – Correction, re-explanation, or instructional feedback given after the execution of the skill or play (Lacy & Darst, p. 371).

Praise – Verbal or nonverbal compliments, statements, or signs of acceptance. Example: “Good effort on defense” (Lacy & Darst, p. 371).

Scold – Verbal or nonverbal behaviors of displeasure. Example: “that was a terrible effort” (Lacy & Darst, p. 371).

Silence- Period of time when the subject is not talking (Lacy & Darst, p. 371).
Specific Positive Skill Feedback - Verbal praise that occurs during or following a specific skill attempt. Example: “Yes, you followed through well on that shot” (Tannehill & Burton, p. 384)!

Specific Negative Skill Feedback - Verbal scolding that occurs during or following a specific skill attempt. Example: “Come on, you shot without looking at the basket!” “Terrible! You took your eye off your man.” (Tannehill & Burton, p. 385).

Uncodable - Behaviors that could not be clearly heard or seen (Lacy & Darst, p. 371).

Use of first name - Using the first name or nickname when speaking directly to a player, for example, “Bill, nice block!” (Lacy & Darst, p. 258).
CHAPTER 2
Review of Literature

Researchers have studied and documented many behaviors of coaching and teaching. Physical education is designed to teach students motor skills, kinesiological principles, and fitness while helping them to improve their individual skill level and performance successes (Silverman, Tyson, & Krampitz, 1992). Coaching is designed to impact athletes’ physical, psychological, and motivational welfare (Alfermann, Lee, & Wurth, 2005). Coaches and physical education teachers share similar responsibilities in improving physical abilities in students and athletes. How does an individual in the dual role of coach and physical education teacher, deliver the same feedback to students and athletes in the two environments?

The amount of feedback along with timing and types of feedback may have a positive effect in athlete and student’s success with movement (Nicaise, Genevieve, Boise & Amorose, 2006). A function of both physical education teachers and coaches should be to motivate student’s improvement. An individual who coaches and teaches physical education should deliver adequate amounts of feedback for improving skill acquisition in both environments. This review of literature focuses on feedback. Feedback will be reviewed by subdividing the topic into five parts. The first sub-topic that will be reviewed is literature about the different types of feedback and the effects on physical performance. The second part of this review will include literature pertaining to amounts of feedback. The third theme that will be reviewed is the affect of feedback on
learning. The fourth part of the review will focus effective coaching and teaching. The last topic will focus on coach and teacher role conflicts.

Feedback

Feedback plays a major role in motor development and for the purpose of this study should be observed. The present study observes the verbal and non-verbal behaviors of an individual in the dual role as coach and physical education teacher. Nicaise et al. (2006) support the idea that the behaviors of coaches and teachers play an important part of athlete and student development. Lee, Keh, and Magill (1993) stated that it is evident that coaches are more capable of diagnosing performance errors and delivering specific feedback to learners than physical educators. Coaches focus on specific performance goals, they typically are able to understand when errors are made, provide feedback to fix the errors, and improve an athlete’s ability to play. Coaches review film in slow motion and critique each step of an athlete’s play. A physical education teacher typically does not watch film after each lesson and may teach a sport/activity they may not be an expert in.

Types of Feedback and the Effects on Physical Performance

Two important terms to motor development include knowledge of result (KR) and knowledge of performance (KP) (Schmidt & Wrisberg, 2008). This feedback can play an important role in skill acquisition. Other types of feedback and their effects on physical performance that will be reviewed include augmented, post-instructional, concurrent, verbal, and non-verbal. It is important to understand the types of studies that have been conducted on feedback and their findings on physical performance. A study by
Silverman et al. (1992) concentrated on feedback and achievement. Physical performance study results have been problematic when studying motor skills, kinesiological principles, and fitness. According to Magill et al. (1994), these studies are complicated and are inaccurate. They are complicated because it is difficult to study a large group, real-life environment and collect all data that is needed. Their studies have involved one subject using a computer or other tracking device to track movement. This type of study is not in a real-life environment. There is one person being asked to perform one physical movement at a time, there is no interaction with others, and there are no distractions for the teacher or for the student. This study may show what one-on-one feedback can provide, however, that is not what needs to be investigated. One needs to understand real-life, live stimulus findings. Bortoli, Messina, Chiariotti, and Roberto, and Claudio (2010) supported previous findings where there is a lack of research in real world settings.

In a few investigations of large group, real-life situations, relationships between teachers feedback included: type, form, time, number of students, quality of teacher feedback, and student achievement in an actual physical non-laboratory environment. In those studies the emphasis was placed on feedback. According to Silverman et al. (1992), when the feedback was provided during whole part practice sessions student’s physical performance improved.

In the study by Silverman et al. (1992), feedback by itself did not seem to change student achievement. Their study consisted of 200 students in ten middle/junior high school physical education classes and their teachers. Students were tested before and after
on two volleyball skills. They videotaped lessons to get accurate coding of teacher and student behaviors. Systematic observation was used for collecting data. This data was used to determine the relationship of feedback behaviors to achievement. Student achievement improved when the students practiced while the teacher provided feedback that was related to achievement. The key variable in achievement seems to be practice and feedback combined. While feedback helps individual students, feedback directed to the outcome of the skill seems to improve the student achievement. Through studies, it is believed that positive feedback impacts students positively through their emotions, the feedback motivates students to continue practice. Through further studies, researchers believe teachers must get to know their students to understand their learning abilities, their learning style, and what motivates the students. Without understanding these things, the teacher may not be able to understand how much practice and feedback is required to build skill in performance.

When learning a new skill an athlete or student should be provided with some type of feedback about their skill performance. This type of feedback is referred to as augmented feedback. In the world of motor learning augmented feedback plays a two part role in skill learning. The first part is that augmented feedback is necessary for effective skill learning to actually occur. The second role it plays is that augmented feedback is also beneficial to skill learning. In order for skill learning to occur, Adams (1971) felt knowledge of results (KR) is a necessary type of information that must be provided to the learner. Schmidt (1975) supported Adams with his schema theory by supporting the necessity of KR for skill learning. He believed knowledge of performance
KP would also benefit skill building similar to KR (Magill, 1994). The focus here is not the actual feedback per se, but how an individual who exhibits these behaviors could be beneficial to their athlete or student.

In order to gain optimal learning, augmented feedback must be delivered in the right context. Receiving augmented feedback should make the athlete or student aware of their performance and then would allow them to make adjustments as needed to improve their skills. Augmented feedback is a competency that the coach and physical education professional should provide to help athletes and students understand their errors and achievements made in performance. When the athlete or student receives knowledge of performance feedback they know if they are performing correctly or incorrectly. One can easily just throw a ball up to the basket and it can go in. That does not mean the player shot the ball with correct form, and therefore may not be a consistent shot. The only way to perfect the player’s form and gain consistency in their shot, is to provide the player with proper feedback pertaining to his or her form. Providing augmented feedback may motivate the player to perform the skill correctly. The player may improve if the coach or teacher provides feedback while the player partakes in practice. The repeated practice and continued feedback may help the player to improve their performance. When the coach or teacher provides congruent feedback, they repeat what they have taught their students; it allows the students to understand how their practice or play is going. It reinforces what they have learned and how they are performing (Silverman et al. 1992).
Boyce’s (1991) review of literature shows that a teacher’s/coach’s key role in delivering augmented knowledge of performance for each player’s attempts on skills may help improve player performance. Unfortunately, augmented feedback is not delivered as frequently, or as accurately as researchers would like it to be delivered. Feedback that is delivered usually addresses the performance outcome and does not always pertain to the execution of a skill during skill acquisition. Most research literature focuses on knowledge of result; however knowledge of performance provides teachers and coaches with a way to correct movement patterns and to enhance motor skill performance and learning. Boyce’s emphasis was to determine if KP had a positive impact on performance and to ascertain the effects of KP feedback on skill acquisition. For this study there were 50 subjects who participated in a shooting task. These tasks were done in either a controlled environment with no instructional strategy and no deliverance of KP; an instructional strategy environment with KP feedback after every trial; or an instructional strategy group with summary of KP feedback delivered after every five trials. This study shows the environment without KP showed improvement, however it took longer to reach the same outcome as the environment with KP. All three environments reached about the same shooting score but instructional strategy with KP (M=27.26) delivered after each shot attempt increased the shooters goals more quickly than the instructional strategy with summative KP (M=26.34), for every five shots attempted. The lowest mean score (M=22.98) was exhibited with no instructional strategy and no KP.
Knowledge of result merely presents information on the movement outcome. Both will improve performance, however, it is necessary for the coach and teacher to understand what they are trying to manipulate. It is imperative for the coach and teacher to find the most effective deliverance of feedback patterns. A study conducted by Lee et al. (1993) suggests that coaches are more capable of diagnosing performance errors and providing accurate feedback to athletes and students than physical educators. This study notes that this may be an indication that coaches have more subject-matter knowledge and are more capable of providing accurate descriptive and prescriptive feedback.

Through researching of studies, Lee et al. (1993) also suggests that physical education specialists spent more time demonstrating effective teaching behaviors than non-specialists. The non-specialist spent more time just monitoring, attending, and silently observing the students. Accuracy of feedback is critical for motor-skill learning and incorrect feedback can have an adverse effect (Lee et al., 1993). Cushion and Jones (2001) believe the quality of the feedback is more important and beneficial than the quantity. Without feedback, coaches and physical educators may not assist students to improve physical performance. For their study, Cushion and Jones (2001) used the Arizona State University Observation Instrument to collect the behavioral data of eight soccer coaches. Each coach was observed at three practices for 45 minutes each with a total of 1,080 minutes of observation. During the observations discrete behaviors were recorded, showing 18,954 discrete behaviors. The largest behavior recorded was instruction to include, pre-instruction, concurrent instruction, and post-instruction with 56.61% of frequency and 52.91% of intervals. Cushion and Jones came to the conclusion
instruction and other similar behaviors were used the most. Their study supports findings that instructional behaviors are more beneficial than general feedback.

Teachers who provided feedback directed to a specific movement seemed to help the students improve their skills. Results in studies related to types of feedback and the effect on physical performance, suggest most physical education teachers provide feedback to student performance during practice. The effectiveness on feedback alone shows no change or possibly a decrease in achievement (Silverman, 1992).

In a study by Silverman et al. (1992), feedback by itself did not seem to change student achievement. Their study consisted of 200 students in ten middle/junior high school physical education classes and their teachers. Students were tested before and after on two volleyball skills. They videotaped lessons to get accurate coding of teacher and student behaviors. Silverman et al. (1992) used a systematic observation system for collecting data. This data was used to determine the relationship of feedback behaviors to achievement. Student achievement improved when the students practiced while the teacher provided feedback that was related to achievement. According to Silverman et al. (1992), the key variable in achievement seems to be practice and feedback combined. While feedback helps individual students, feedback directed to the outcome of the skill seems to improve the student achievement. Through studies, Silverman et al. believes positive feedback impacts students positively through their emotions, the feedback motivates students to continue practice. Through further studies, researchers believe teachers must get to know their students to understand their learning abilities, their learning style, and what motivates the students. Without understanding these things, the
teacher may not be able to understand how much practice and feedback is required to build skill in performance. The effectiveness of feedback may vary according to the knowledge of the students and their knowledge of the skill that is being performed. Through studies, evidence indicates that coaches are more capable of diagnosing performance errors and providing accurate feedback to learners than physical education teachers. Accuracy of feedback is critical for motor-skill learning, without it, the teacher may not be aware of how to guide their students. The teacher who provides incorrect feedback may be detrimental to student learning (Yerg & Twardy, 1987). The importance is for the coach or teacher to display these behaviors in both environments. Although athlete and student learning is not the focus for this current study understanding the effects of feedback on athlete and student learning is important.

By providing positive feedback rather than negative feedback athletes or students are more likely to improve on performance. Lacy and Darst (1985) support the popular opinion that more can be accomplished by the coach using positive rather than negative interactions. In their study, they observed ten high school football coaches with at least four years of experience each. Event recording was used to collect data on coach behavior in an allotted amount of time. Verbal instructions were very dominant by the coaches in this study. Another major function in their study provided encouragement to maintain and intensify their player’s efforts. Praising or encouraging players to hustle should result in their wanting to improve, thus motivating them to continue practicing the skill.
Post-instructional and concurrent feedback allows players and students to be aware of what they are doing right or wrong during skill acquisition. Concurrent feedback provides athletes or students with feedback during the execution of the skill. This allows them to know what they need to change or what they should continue to practice within the skill. Post-instruction feedback allows athletes and students to receive feedback after the execution of the skill. This allows for the athlete or student to see the outcome of the skill and to receive feedback on what they should continue practicing or what they should change in order to improve their performance (Lacy & Darst, 1989).

Lacy and Darst found the total rate per minute for behaviors were higher in the preseason (5.31) than the early (3.7) and late season (3.67) phases. It is important for a coach or teacher to stay consistent to best benefit their athletes or students. Lacy and Darst found praise was used 0.70 RPM compared to the scold category at 0.23 RPM.

**Amounts of Feedback**

The use of feedback is known to encourage athletes or students to practice because they know the coaches or teachers are watching. The more feedback given, the more apt athletes or students will be to perform because they understand they are being watched (Silverman et al. 1992).

Most teachers provide feedback to students because they have expectancies about how they would like their students to perform. In terms of feedback, there is a complex educational relationship that is unique from teacher to teacher, student to student (Brophy, 1983). Research conducted by Siedentop (1991), reveals a teacher’s feedback to their student’s achievements in physical education is inconsistent. In general, in order
for feedback to be effective teachers should provide as many as 30-60 events of feedback in a thirty minute period. The more feedback given, the more students should understand what the teacher is expecting. The more feedback a teacher provides the greater the student will learn.

The majority of the studies show teacher feedback works as an effective means of increasing student achievement in physical education. When the studies compared teachers, the more effective teachers typically provided more feedback. Learning scholars believe teachers should provide maximum amounts and types of feedback. Understanding the type of feedback, how often, and if corrective feedback should be given will help ensure an effective learning environment.

Tharp and Gallimore (1976) concluded that Coach John Wooden used a high percentage of instructional behaviors (75% contained some for instruction) and indicated that his excellent instruction positively affected his team’s performance (Claxton, 1988). This study shows player performance is affected by coaches’ feedback. Lacy and Darst (1985) and Claxton (1988) both used this study to support their research. Coaching behaviors are critical to player development. It is important to continue researching how coach’s behaviors affect their athlete’s performance. Another study that used the ASUOI, by Lacy and Goldston (1990), found that coaches observed displayed verbal instruction behaviors 49.6% of the time. Verbal instructions were very dominant by the coaches in that study. Another major function in their study showed providing encouragement to maintain and intensify their player’s efforts was effective. This
behavior accounted for 18.5% of all behaviors. The last major function in their study was management which accounted for 15.3% of their behaviors (Lacy & Goldston, 1990).

Affects of Feedback on Learning

In this section of the literature review, affects of feedback on learning will be reviewed. Studies such as the one by Silverman et al. (1992) shows student learning is affected by teacher feedback. Silverman et al. found achievement is affected by feedback when combined with practice. Teachers should monitor student progress and provide feedback. By providing appropriate feedback the teacher’s goal is to gain student performance and understanding of the material. Studies show students will increase their learning with specific task and relevant feedback. Class time spent practicing with the teacher allows the teacher to provide feedback to individual students. Knowledge of result (KR) is related to performance. It may be that teacher feedback focuses on the KR that is occurring and perhaps that is more powerful. Feedback that focuses on form improved student outcome. When teachers gave feedback related to achievement, it had a positive effect on the students. It is believed positive feedback motivates students to practice and focus, thus may improve skill performance (Silverman et al., 1992).

Studies have found teacher’s behaviors towards their students are a primary force in how students feel about themselves and how they learn (Martinek, 1981). In classrooms and in physical education there are many different types of feedback. Feedback plays a major role in the development of skills. If a student does not receive feedback, they will not know if they are performing the skill(s) correctly. Studies conducted by Magill (1989) and Schmidt (1987) found that students receiving teacher
feedback that is specific, congruent, and corrective is shown to significantly improve both low and high skilled beginning students in practice success. Verbal and visual feedback behaviors are linked to motor skill performance. Studies show that verbal and visual feedback work because it allows the teacher to show the skill and it also allows the teacher to point out correct accomplishment and incorrect accomplishment to the student who is working to perform the skill.

Another important type of feedback, augmented feedback, provides students with the necessary information to help them understand the correct motor responses to increase performance (Tan, 1996). Augmented feedback is a necessity in physical education and should be a part of every teacher’s daily language. Armstrong (1984) felt coaches and teachers were not aware of what they are communicating to learners and therefore may not be effective in the learning environment (Tan, 1996). Studies have proven that augmented feedback is a critical component in skill instruction. It is important for coaches and teachers to be aware of the effects of feedback, the amount provided, when to provide it, and who to provide it to. These elements are essential to being an effective coach or teacher.

*Effective Coaching and Teaching*

In order to be an effective coach or teacher, one must understand how to get the intended knowledge across to their athletes or students and teach them how to retain that knowledge. An effective coach or teacher should reach all levels. Effective coaches and teachers should deliver equal amounts of feedback to their high-expectancy and low-expectancy athletes and students. Equal amounts of feedback may not always be
delivered, studies show physical education teachers give more attention to the students that they like (Rink, 2006). Effective teachers are aware of their expectations and will not let their expectations decide their relationship with a student. Effective teachers should implement strategies to help individual students become successful by manipulating the demands of motor tasks (Rink, 2006). Effective teachers should create and design lesson plans to benefit different skill levels of students. Effective coaches should create and design practice schedules to benefit different skill levels of athletes.

The ability to motivate all athletes and students and to get all athletes and students involved is another quality of an effective coach and teacher. The physical education teacher should have the ability to communicate with students (Rink, 2006). Clarifying cues and goals of lessons is very important. Being able to communicate what the coach or teacher is looking for will increase learning. When athletes and students understand what is needed, feedback will make more sense. According to Brophy (1982), students believed they were correct unless the teacher provided the student with specific congruent feedback. Positive reinforcement may improve learning in an athletic or educational setting. Effective coaches and teachers are aware of their actions and how it affects learning and performance. Effective coaches and teachers are able to continue gaining knowledge by taking professional development courses to expand their knowledge.

The expectations developed by coaches and teachers are influenced by many factors. Each individual develops different expectations for different individuals. These expectations may occur consciously or unconsciously. The expectations are still present and may affect each student differently (Martinek, 1981). For example, a coach or
teacher may make the assumption a child who is overweight, is slow, and not very athletic. They may assume that this individual will not participate in activities and will not do well. These assumptions about this individual may be correct or they may be incorrect. The coach or teacher will not know until the individual is actually participating. In order to create a fair learning environment, coaches and teachers should never judge an individual by their appearance. Other factors that may influence expectations of an individual are extrinsic behaviors, sex, race, age, skill, SES, physical attractiveness, having a disability, behavioral attributes, intelligence, past records, instructional setting, etc. (Martinek, 1981).

The expectations a teacher has for a student may determine the teachers’ interaction with a student. Martinek (1981), found that students who have higher expectations receive more interaction with the teacher than a student with low expectations. In a study where four junior high teachers were asked to rank their students in order of their achievement or skill potential, students with high expectations had different ranks compared to the lower ranked students.

Athletes or students who do not have movement knowledge to reach a goal would need direct feedback about their performance to understand how to perform. In this case feedback is necessary to enhance learning. The majority of learners in a physical environment should profit when given augmented feedback. Providing accurate and well timed feedback may not be possible in many large group settings. An effective coach or teacher has the ability to deliver adequate amounts of feedback in either environment to best benefit the learner.
Coach and Teacher Role Conflict

According to Sage (1987) Sport and Education have been a mainstream in western society for over one hundred years. Millslagle and Morley (2004) found a person serving the dual role of coach and teacher may make one role more dominant than the other to relieve stress between their roles. Due to the pressures and commitments involved in teaching and coaching, high school coach/teachers report high levels of interrole conflict (Sage, 1978). Sage found that coaches level out their stress through the enjoyment of coaching.

Many times a coach/teacher will take more time to plan sports programs over lesson plans for their class because they do not want to be perceived as an inadequate coach (O’Connor & MacDonald, 2002). Coaching is considered a part time job at the secondary level, but Ryan (2008) states the coaching role frequently is the dominate role as social support, and intrinsic and extrinsic rewards are associated more with coaching. An individual in the dual role may be well known for his/her coaching role throughout the school and community (Sage, 1987).

Ryan (2008) found many people may become teachers so they can coach a sport they enjoyed playing. Teachers that coach may be the largest sub-group within high school teachers. The National Federation of State High School Associations reported over 6.9 million participants in high school sports during the 2003-2004 school year (National Federation of State High School Associations, 2004). Therefore, an individual in the dual role have an opportunity to influence a large number of youth, both in the classroom and in the athletic arena. Millsagle and Molley (2004) found people who had a dual role of
coach/teacher devoted more time to coaching especially during the season. During the off season their coaching time, reviewing film, developing plays, etc. were equal to or less than their teaching time.

O’Connor and MacDonald (2002) found when expectations for dual roles conflict, role conflict exist in the case of a coach/teacher. The majority of the time, more time is given to coaching compared to teaching. It is not uncommon to find coaches preparing practices and game plans during their physical education classes, but it is uncommon to find someone preparing their physical education lessons while coaching (Lipira, 1999).
CHAPTER 3

Methodology

This study is designed to observe the feedback patterns of an individual in the
dual role of coach and physical educator. This study will observe an individual’s verbal
and non-verbal feedback pattern behavior in the coaching environment and in the
physical education environment. A description of the sample, measuring instrument, and
reliability of data are outlined below in the following sections.

Participants

This study will consist of three subjects for data collection. Participants consist of
two male coaches and teachers and one female coach and teacher. Subject participation
was restricted to individuals who have their Bachelors degree and single-subject teaching
credential in physical education. Understanding how an individual uses their knowledge
of verbal and non-verbal feedback in the dual role of teaching physical education and
coaching a sport required a credentialed teacher who had their degree in the subject of
observation. With the assumption the program they went through, taught the importance
of feedback. Participants are currently teaching physical education and coaching at the
secondary level. In order to keep consistently throughout the observations, all participants
coached the same sport, basketball. All subjects teach in Northern California.

Participant #1 earned his Bachelor’s of Science in Physical Education, along with
a minor in Spanish. Participant #1 has been teaching at the secondary level for twenty-
two years and has coached basketball for twelve years. Participant #1 played four years of high school basketball.

Participant #2 earned his Bachelor’s of Science in Physical Education with a minor in Geography. Participant #2 has taught physical education and has coached at the secondary level for a total of twenty-three years.

Participant #3 earned her Bachelor’s of Science in Kinesiology with a concentration in Physical Education. She also earned a supplement in health. Participant #3 is currently in her fourth year of teaching physical education. Participant is in her second year coaching high school varsity girls’ basketball.

Measures

In this study a modified version of the Arizona State University Observation Instrument (ASUOI) will be implemented to collect behavior data for coaches and physical education teachers to include the amounts of feedback provided in lessons and practices. The original ASUOI was designed to collect information on coaching behaviors during practice settings. This tool is usable in the physical education setting as well (Lacy & Darst, 1989).

The ASUOI subdivides the instructional feedback being observed into fourteen categories. The subcategories include: pre-instruction, concurrent instruction, post-instruction, questioning, and physical assistance. There are seven behaviors observed that are directly related to the instructional process. There are also bi-level categories including praise, scold, and hustle. The other categories used in the ASUOI include: use of first name, positive modeling, negative modeling, management, un-codable, and
silence. In the present study not all categories will be used due to their irrelevance to the observations of feedback being delivered. The selected behaviors observed for the purposes of this study as defined in chapter one are as follows: post instructional, concurrent instructional, praise, and scold. For the purpose of this study only the categories specific to verbal and non-verbal feedback relating to skill acquisition will be used. The following categories will not be used due to the irrelevance to skill acquisition: use of first name, silence, management, questioning, physical assistance, positive modeling, and negative modeling. These categories are not directly related to feedback.

The researcher of this study and chair determined to focus on specific feedback.

The procedure of this observation tool for data collection is known as event recording. Event recording is a cumulative record of the number of discrete events occurring during an allotted amount of time. With this tool the observed feedback was clearly displayed.

Procedures

Following the approval from the University Human Subjects Committee (see Appendix A), approximately ten physical education teachers within a seventy mile radius of Tracy, California were contacted via electronic mail to garner consent for subject participation. The participant selection was determined by individuals that met the criteria and were willing to participate in the study. The criteria met for the purpose of this study were the following: current credentialed teacher who is currently teaching physical education and coaching at the secondary level. After permission was granted a meeting was scheduled to present the proposal of the study.
This study is specific to individuals who work in the dual environment of coach and physical educator. Each subject coaches and teaches physical education at the secondary level in order to support the exploratory question. The belief of this research is that the subjects will provide more specific verbal and non-verbal feedback information in the coaching environment and the educational environment. To support the research, practices and lessons were observed. Three physical education lessons and three basketball practices were conducted as planned with no adaptations, and lessons did not have to be basketball specific.

Subject #1 was observed during three circuit weight training classes. The subject observed wore a wireless microphone that was connected to a camcorder to record verbal feedback behaviors. The subject conducted lessons as normal delivering instruction and feedback on subject’s own terms. The subject had a circuit routine the students have been working on for four weeks. The subject circulated the weight room delivering feedback to individuals as they execute the different lifts.

Subject #2 was observed during two football lessons and one basketball lesson. Football lessons focused on catching the ball after running a route. Students were lined up in groups of seven. The first person in line ran the route and the second person threw the pass. The subject wore a wireless microphone while they circulated from line to line delivering feedback to receiver and thrower. Basketball lessons focused on dribbling, shooting and making lay-ups. The subject circulated the gym delivering feedback while the students executed the drills.
Subject #3 was observed during a basketball unit. The subject’s lesson focused on dribbling and passing. The subject would demonstrate the skill and then give students time to practice. The subject then circulated around the class delivering feedback to students as they practiced. The subject wore a wireless microphone to record voice activity. The subject made no alterations to their daily routines and delivered lessons as normal.

Each subject was observed during three practices in the beginning of the season. Thirty minutes of the two hour practice was observed with voice recordings. Each individual wore a wireless microphone connected to a video camera in order to record all voice activity. All lessons and practices were recorded for thirty minutes each in order to review voice activity to validate data collected. During the review, event recording took place using the observation tool by two individuals separately to record feedback behaviors. Event recording required the observer to tally related behaviors each time the coach or teacher performed the behavior. Individual behaviors were totaled and divided by the total amount of all behaviors to find the mean for each individual’s behavior performed. Each individual’s behavior was divided by thirty minutes to calculate the rate per minute (RPM) in which that behavior was performed. Data results from the study were then reviewed using the mean to show the individual’s feedback patterns in the two environments.

Reliability of the Data

To validify the reliability of the data, the researcher asked for a second person to observe recordings of practices and lessons. This person was trained to use the modified
version of the ASUOI instrument to record data and was informed of the definitions for each category. The second person watched each practice and lesson, recording the verbal feedback behaviors observed at ninety percent of the original findings. Event recording required the observer to tally related behaviors each time the coach or teacher performed the behavior. Individual behaviors were totaled and divided by the total amount of all behaviors to find the mean for each individual’s behavior performed. Each individual’s behavior was divided by thirty minutes to calculate the rate per minute (RPM) in which that behavior was performed. Data results from the study were then reviewed using the mean to show the individual’s feedback patterns in each environment. The findings were then reviewed. Observations within ninety percent of original findings were considered accurate and reliable means of data for the purpose of this study.
### Modified Arizona State University Observation Instrument

**Date:** 2/7/11  
**Subject:**  
**Environment:** Coaching  
**Observer:** K.V. Vigil

<table>
<thead>
<tr>
<th>Specific Feedback</th>
<th>Positive</th>
<th>Negative</th>
<th>Total</th>
<th>RPM</th>
<th>Percentage</th>
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</thead>
<tbody>
<tr>
<td>Concurrent Instruction</td>
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<td>Post Instruction</td>
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<td><strong>General/non-specific</strong></td>
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<td>praise</td>
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<td>scold</td>
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**Notes:**

**Date:** 2/7/11  
**Subject:**  
**Environment:** Physical Education  
**Observer:** K.V. Vigil

<table>
<thead>
<tr>
<th>Specific Feedback</th>
<th>Positive</th>
<th>Negative</th>
<th>Total</th>
<th>RPM</th>
<th>Percentage</th>
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<td>Concurrent Instruction</td>
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<td>scold</td>
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**Notes:**
CHAPTER 4

Results

This study consisted of three individuals who are in the dual role of a coach and physical education teacher. A systematic observation of each subject’s behavior was recorded in the coaching environment and the teaching environment. The recording of the events were then tallied using the modified Arizona State University Observation Tool to determine how much feedback is delivered in the physical education environment and the coaching environment. Behaviors in the coaching environment and teaching environment were tallied as each event of feedback occurred. Specific congruent feedback, concurrent instruction and post instruction, were observed. Non-specific feedback, praise and scold, were observed. The data was then analyzed by finding the average of each session for each coach.

The main purpose of this study was to observe the feedback behaviors of an individual in the dual role of coach and physical educator. Results of the recorded sessions, using the Arizona State University Observation Tool were tallied to calculate the post instruction, concurrent instruction, praise and scold. Coaching environment calculations along with physical education calculations were reviewed and graphed. The predictor variables for the observation were the four ASUOI categories calculated from the recorded coaching and teaching behaviors. The observation showed the average use of concurrent instruction was provided more frequently in the coaching environment.
Table 1: Subject One’s Concurrent Feedback

<table>
<thead>
<tr>
<th>Incidents Observed</th>
<th>Concurrent Feedback</th>
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<tbody>
<tr>
<td>Session 1</td>
<td>PE Class</td>
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<tr>
<td>Session 2</td>
<td>Practice</td>
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<tr>
<td>Session 3</td>
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</tbody>
</table>

In the coaching environment, subject one recorded concurrent feedback a total of 123 times which had a mean of 41 and an RPM of 1.4. In the teaching environment concurrent feedback was given a total of 108 times for a mean of 36 and an RPM of 1.2.
In the coaching environment, subject one recorded post instructional feedback given 86 times in the three sessions with a mean of 28.70 and an RPM of 1.0. Post instruction was given 57 times averaging 19 times with an RPM of 0.6 in the teaching environment.
Subject one recorded the feedback praise, a total of 110 times in the coaching environment with a mean of 36.7 times per session and an RPM of 1.2. In the teaching environment praise was given 41 times over the three sessions averaging 13.7 times per session. The RPM for praise in the teaching environment was 0.5.
Table 4: Subject One’s Scold

Subject one recorded scold was delivered 16 times over the three sessions in the coaching environment with a mean of 5.3 times per session and a 0.18 RPM. In the teaching environment scold was given 17 times over the three sessions with a mean of 5.7. The RPM in the teaching environment was 0.19.
Table 5: Subject Two’s Concurrent Feedback

Subject two recorded concurrent feedback a total of 72 times with a mean of 24 and a RPM of 0.8 in the coaching environment. In the teaching environment concurrent feedback was given a total of 51 times for a mean of 17 and a RPM of 0.6.
Table 6: Subject Two’s Post Instruction Feedback

In the coaching environment, subject two recorded post instructional feedback a total of 46 times in the three sessions with a mean of 15.3 and a RPM of 0.5. Post instruction was given 54 times with a mean of 19 and a RPM of 0.6 in the teaching environment.
Subject two recorded the feedback praise a total of 178 times in the coaching environment with a mean of 59.3 times per session and a RPM of 1.98. In the teaching environment praise was given 83 times over the three sessions with a mean of 27.67 times per session. The RPM for praise in the teaching environment was 0.9.
Table 8: Subject Two’s Scold

Subject two recorded scold was delivered 6 times over the three sessions in the coaching environment with a mean of 2 times per session and a RPM 0.07. In the teaching environment scold was given 11 times over the three sessions with a mean of 3.67. The RPM in the teaching environment was 0.12.
Table 9: Subject Three’s Concurrent Feedback

Subject three recorded concurrent feedback a total of 49 times with a mean of 16.33 and a RPM of 0.48 in the coaching environment. In the teaching environment concurrent feedback was given a total of 44 times for a mean of 14.67 and a RPM of 0.49.
Table 10: Subject Three’s Post Instruction Feedback

Subject three recorded post instructional feedback a total of 47 times in the three sessions with a mean of 15.67 and a RPM of 0.52. Post instruction was given 38 times with a mean of 12.67 times per session and a RPM of 0.422 in the teaching environment.
Subject three recorded the feedback praise was delivered a total of 128 times in the coaching environment with a mean of 42.67 times per session and a RPM of 1.42. In the teaching environment praise was given 87 times over the three sessions with a mean of 29 times per session. The RPM for praise in the teaching environment was 0.97.
Table 12: Subject Three’s Scold

<table>
<thead>
<tr>
<th>Session 1</th>
<th>Session 2</th>
<th>Session 3</th>
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<tbody>
<tr>
<td>Practice</td>
<td>PE Class</td>
<td>Incidents Observed</td>
</tr>
<tr>
<td>9</td>
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In the coaching environment, subject three recorded scold was delivered 9 times over the three sessions, with a mean of 3 times per session and a RPM of 0.10. In the teaching environment scold was given 14 times over the three sessions with a mean of 4.67. The RPM in the teaching environment was 0.16.
CHAPTER 5
Discussion

It was the purpose of this study to observe the feedback behaviors of an individual in the dual role of physical educator and coach. This study was conducted to better understand feedback patterns of an individual in the dual role of coach and physical education teacher. Having the knowledge and being aware of an individual’s behavior may benefit the student. This study focused on four types of feedback including, concurrent instruction, post-instruction, praise, and scold. This chapter presents the findings, with an emphasis on the results, and recommendations for further research in this area.

The praise category total rate per minute in both the coaching and teaching environment was the highest. This reinforces findings that more can be accomplished by a coach or a teacher when using positive feedback. Smoll and Schmidt (2002) support the findings that individuals who provide feedback towards a player effects their performance. A study by Lacy and Darst (2006) found praise was used more often than scold, which reinforces the opinion that coaches should use positive interaction.

Lacy and Darst (2006) found the scold category was used less often than other segments. In this current study scold was used less often than any other behavior. These findings support the idea that scolding athletes and students is less beneficial in the coaching and teaching environments.
The instructional category, concurrent instruction and post instruction, demonstrated approximately 50% of instructional behaviors in both environments. It seems apparent, that instruction is used extensively in both the coaching and teaching environments. The instruction category dominated the teaching environment with a total of 58% (33% concurrent, and 25% post instruction). In the coaching environment the instruction category totaled 48% (28% concurrent instruction, and 20% post instruction). These findings support the idea that instructional feedback is effective in both the coaching and teaching environments. Horn et al. (2002) found that coaches need to provide instruction by directly focusing on skills and information needed. According to Silverman et al. (1992) teacher feedback improved student performance.

Cushion et al. (2001) found concurrent instruction had the highest frequency of all behaviors. Instruction was given more than any other form of behavior. In his findings, as in the current study, praise was the second largest frequency.

The current study observes a person in the dual role as coach and teacher providing more feedback while coaching. Knowing this, if providing feedback is beneficial to player performance, an individual should teach their students similar to how they coach their athletes. If they were to teach students the way they coach their athletes, they may see better results from that feedback in the classroom.

Individuals in the dual environments may have taken professional development courses on feedback. These individuals were trained on the different types of feedback that affect performance. It is important for them to know when feedback should be delivered and how much feedback should be delivered to benefit their athletes and
students. Having this knowledge may improve performance, help athletes to have a more successful season, and allow students to meet state standards quicker. Studies have found an individual who are in dual roles of a coach and teacher typically put more time and effort in coaching. The combined role of being coach and teacher is a role whom many are unprepared to handle equally (Ryan, 2008).

The limitations of this study made the observations of the dual environments difficult due to uncontrollable variables such as experience, programs, philosophies, and students. In future studies experiences, programs, philosophies, athletes and students will be reviewed in order to develop a better understanding of coaching and teaching practices. To better support this study, additional subjects and sessions should be observed. Sessions should be observed for longer periods of time as well as over a longer period of time. Although it might be difficult, it would be interesting to incorporate the subject’s teaching style while observing.

In conclusion, providing more feedback in the coaching environment may be attributed to the fact the coach has fewer individuals to work with thus allowing the coach more one-on-one time with the player, and a much smaller group. The coach is able to see everything that is happening at all times compared to the teacher who may have a larger class and a less controlled environment. The coach may be more knowledgeable about one sport versus the physical education curriculum. Athletes are typically better skilled due to the fact they concentrate on the sport they are participating in. They may have been playing the sport for years, and probably practice at home during their spare time. Many athletes are self motivated and look forward to practicing with
their team. Most athletes volunteer to be on the team and are excited about learning new skills.

In future studies it would be necessary to compare the two environments, in order to understand how much the performance is being affected. Overall, providing the proper types and amounts of feedback will best benefit athlete and student skill development. It is recommended, that future research looks into the different levels of sports as well as a variety of sports. Comparing an individual’s feedback behaviors to starters versus non-starter, the skilled student to the non-skilled student, and male versus female may prove to show significant differences and important details.
Appendix A

Application Form (Revised 02/2009)

Request for Review by the CSUS Committee
For the Protection of Human Subjects

(Submit 11 copies of this form and any attachments to the Office of Research and Sponsored Projects, Modoc Hall, Room 2007, Mail Stop 6111. Please type your responses or use a word processor.”

Project Title: A Comparison of Physical Education Teachers’ Behaviors in the Physical Education Environment to Behaviors in the Coaching Environment
Name(s) and affiliation(s) of Researchers: Kristen Vargas-Vigil

Mailing address (or Department and CSUS mail code): Kinesiology

209-xxx-xxxx xxxxx@yahoo.com 01-01-2010
Telephone and e-mail address for researcher Anticipated starting date

Dr. Michael Wright wrightm@csus.edu
Name of faculty sponsor (for student research) E-mail address of sponsor

1. Who will participate in this research as subjects (e.g., how many people, from what source, using what criteria for inclusion or exclusion)? How will their participation be recruited (e.g., what inducements, if any, will be offered)?

Research subjects will include three credentialed Physical Education teachers located in the Tracy school district. All teachers and subject participation will be voluntary.

2. How will informed consent be obtained from the subjects? Attach a copy of the consent form you will use. If a signed written consent will not be obtained, explain what you will do instead and why. (See Appendix C for examples of consent forms, an example of an assent form for children, and a list of consent form requirements. Also see Informed Consent earlier in this manual.)

An informed consent form will be administered to each subject prior to participation. If signed written consent is not obtained, the subject will not participate in the study. See attached.
3. How will the subjects’ rights to privacy and safety be protected? (See Level of Risk earlier in this manual. For online surveys, also see Appendix B.)

All video recording will be used for data collection purposes only then returned to subject after the finish of all research for all subject privacy to the public. Video recordings of the lessons and practices conducted will be reviewed to validate behaviors.

4. Summarize the study’s purpose, design, and procedures. (Do not attach lengthy grant proposals, etc.)

The purpose of this study is to observe the feedback behaviors of an individual in the dual role of physical educator and coach. The researcher will observe individual classes/practices and code the teacher/coaches’ behaviors using a modified version of the Arizona State University Observation Instrument during three sessions. All observations will be video taped to validate the collected data. The teacher/coach being coded for their behaviors will wear a wireless microphone so all verbal behaviors can be heard clearly and coded. Numbers will be assigned to each subject to protect their identity.

5. Describe the content of any tests, questionnaires, interviews, etc. in the research. Attach copies of the questions. What risk of discomfort or harm, if any, is involved in their use?

There will be no tests, questionnaires or interviews in this study so there is no risk of discomfort or harm.

6. Describe any physical procedures in the research. What risk of discomfort or harm, if any, is involved in their use?

Class/Practice will be conducted at the discretion of the teacher/coach. There will be no alteration to class/practices. There will be no risk of discomfort or harm in the procedures.

7. Describe any equipment or instruments and any drugs or pharmaceuticals that will be used in the research. What risk of discomfort or harm, if any, is involved in their use?

Video recordings with wireless microphones will be used for reliability of data collected. During review of the recordings, the Arizona State University Observation Instrument will be used to record behaviors of teacher/coach, which will not be of discomfort or harm of any subject.
8. Taking all aspects of this research into consideration, do you consider the study to be “exempt,” “no risk,” “minimal risk,” or “at risk?” Explain why. (See Level of Risk earlier in this manual.)

I consider this study to be “no risk”. Class/Practice will be conducted as normal. All physical procedures are prescribed by the teaching/coaching staff not the researcher.

_________________________________________  __________________________
Signature of Researcher                       Date

_________________________________________  __________________________
Signature of Faculty Sponsor
(for student research)                       Date
References


