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The effect of supervisory feedback on a female collegiate lacrosse coach's behavior

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THE EFFECT OF SUPERVISORY FEEDBACK ON A FEMALE

COLLEGIATE LACROSSE COACH'S BEHAVIOR

by

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An Abstract

of a thesis submitted in partial fulfillment

of the requirements for the degree of

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ABSTRACT

This study investigated the effectiveness of
supervisory feedback as a means of changing a coach's
behaviors. A collegiate female lacrosse coach and her
team of 20 athletes were videotaped during 12 practices
and four randomly selected games. The Self-Assessment
Feedback Instrument (SAFI) was used to code the
videotapes in order to formulate a profile of various
behavioral patterns. Although the SAFI is designed for
self-assessment, it can be used by a trained researcher
to gather information about a subject and his/her
behaviors. The practice sessions were broken down into
three phases, with each of the three phases being coded
by the investigator. Phase I consisted of three
practices in which baseline data were collected in
order to form a coaching profile for the subject. This
profile consisted of percentages and rates per minute
(RPM) for each of the behaviors observed. Phase II,
the treatment phase, consisted of six practices. Each
day during this phase the coach viewed excerpts of the
videotapes and reviewed the SAFI data of the previous
day's practice with the researcher. After the review,
behavioral goals for the next practice session were
established and strategies to attain them identified.

Phase III, the post-treatment phase, consisted of three practices being videotaped in order to compare pre- and post-data to determine if there were any changes in the subject's behavior. A fourth phase, which consisted of four games, was done to compare game behavior with practice behavior from Phase III. Descriptive statistics were used to compare the results from Phase I and Phase III to determine if the intervention process changed the coach's behavior. Analysis of the data revealed changes in the coach's behavior after supervisory feedback. Increases occurred in praise/reinstruct, instruction during performance, hustle behaviors, and constructive criticism followed by reinstruction, while decreases occurred in praise, extended information-giving, directions, and criticism. During games, as compared to practices, the coach exhibited more hustle behavior, instruction during performance, and criticism/reinstruct. Through supervisory feedback, the coach was successful in changing her behavior to accomplish her goals.

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by

Cynthia A. Cifone

May 1992

Ithaca College
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Ithaca, New York

CERTIFICATE OF APPROVAL

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MASTER OF SCIENCE THESIS

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This is to certify that the Master of Science Thesis of

Cynthia A. Cifone

submitted in partial fulfillment of the requirements
for the degree of Master of Science in the Division of
Health, Physical Education, and Recreation at Ithaca
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DEDICATION

This thesis is dedicated to those who have an ardent desire to succeed in life:

"Now I know a refuge never grows

from a chin in a hand in a thoughtful pose,

Gotta tend the earth if you want a rose."

Emily Sailors, Indigo Girls

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Chapter 1

INTRODUCTION

In recent years, there has been increased research
aimed at improving coaches' behaviors in much of the
same way as systematic supervisory feedback has been
used to successfully change teachers' behaviors.
Systematic supervisory feedback has been conducted
using various types of observation instruments.
Flanders' Interaction Analysis System (FIAS) was
specifically designed for observing, recording, and
analyzing verbal behavior (Darst, Zakrajsek, & Mancini,
1989). Cheffers' Adaptation to FIAS (CAFIAS) was
specifically designed to objectively record teacher and
student verbal and non-verbal behavior in a physical
activity setting. FIAS, CAFIAS, and their
modifications, among them the Self-Assessment Feedback
Instrument (SAFI), have been used extensively in
physical education research.

The SAFI is a modification of CAFIAS. This self-
evaluation instrument can help coaches determine areas
of improvement, set personal goals, and monitor their
progress toward those goals in pursuit of the
improvement of instructional effectiveness (Mancini &

Wuest, 1989). Although the SAFI is designed for self-assessment, it can be used by a trained researcher to gather information about a subject. The SAFI was designed by Mancini and Wuest to allow the monitoring of both the type and frequency of feedback either during or following physical performance. Feedback is commonly acknowledged to be one of the most critical factors in learning, whether it is used for skill development or behavior improvement.

Siedentop (1983) states that "the best way to enhance the power of feedback statements is to increase the percentage of feedback statements that contain specific information or have value content" (p. 198). An example of this would be to tell the lacrosse player that when cutting through the arc, it is important to finish the cut so as not to congest the arc and to be able to reposition herself to make another cut. This is of value to the athlete because the statement contains specific information about the skill as well as why it needs to be done in this manner. Knowledge about response proficiency is also critical for learning; therefore, this information must be provided in order to facilitate learning (Schmidt, 1982). In

other words, the coach must be able recognize errors and efficiently and competently aid the athlete in correcting them. For example, if a player is practicing shooting, her point of release will need to vary depending on the angle of her positioning; therefore her pattern of movement needs to be precise. In other words, knowledge about response proficiency is necessary in making changes in a movement pattern.

If coaches are provided with objective feedback about the events that occur in their practices, they may be able to increase the amount of motor-on-task behavior in their practices (Grant, Ballard & Glynn, 1990). This can result in highly productive practices because the coach is able to modify her/his teaching so that time is not wasted and things are done in a more effective and efficient manner. Using interaction analysis with feedback can allow the coach to create the type of environment most conducive to learning.

The SAFI was utilized in this study with the researcher acting as a facilitator to the coach. The SAFI was used to help gather information about the coach's behaviors. The researcher then guided the coach in establishing strategies to attain her

behavioral goals.

Scope of the Problem

This investigation was conducted throughout the 1991 lacrosse season. The effect of systematic supervisory feedback on a female collegiate lacrosse coach's behaviors during four phases of the season was studied.

The coach was videotaped for 12 entire practices and four randomly selected games. The tapes were coded after every practice and game using the SAFI to determine percentages of behaviors and rate per minute (RPM) in order to give the coach feedback on her behavior. This allowed the coach to identify her behavior patterns, choosing those behaviors she would like to improve. Next, strategies were identified that would lead to the desired changes in those behaviors.

Phase I, the pre-treatment phase, consisted of three practices in which baseline data were collected and percentages and RPM for each of the behaviors of the SAFI were calculated.

Phase II, the treatment phase, consisted of six practices. At the beginning of this phase, the baseline data were reviewed by the coach and the researcher to establish behavioral goals. By viewing

excerpts of the tapes and reviewing the SAFI data, the coach determined which behaviors she wanted to change and chose target percentages and RPM to be attained for each of those behaviors. Before the next practice and each subsequent practice during this phase, the coach set behavioral goals.

Phase III, the post-treatment phase, consisted of three practices. Phase I and III data were then compared to see if the coach met her goals of feedback improvement.

Four randomly selected games were videotaped and comprised Phase IV. The coach's behavior during these games was coded using the SAFI. Data were compiled from the four games to form a coaching profile of game behaviors. This profile consisted of percentages and RPM for each of the behaviors listed in the SAFI. The coaching profile formed during this phase was used to compare the coach's game behavior with her practice behavior of Phase III.

Statement of the Problem

The effect of systematic supervisory feedback on a female collegiate lacrosse coach's behavior was examined during four phases of the season.

Hypothesis

There will be no significant differences in a coach's behavior following systematic supervisory feedback and self-assessment.

Assumptions of the Study

The following assumptions were made regarding this investigation:

1. The 16 videotapes of the coach and her team would yield sufficient data to test the hypothesis.

2. The coding of the SAFI would yield valid data to test the hypothesis.

Definition of Terms

The following terms are defined for the purpose of this study:

1. Conventional Supervisory Feedback (CSF) deals with feedback concerning methodology, control and organization.

2. Phase I, the pre-treatment phase, refers to the second week of the preseason and consists of three videotaped practices to provide baseline data.

3. Phase II, the treatment phase, refers to the period of time between the 1st and 12th games and consists of six videotaped practices to allow for the

treatment of selected behaviors.

4. _Phase III_, the post-treatment phase, refers to the time between the 13th game and the 15th game and consists of three videotaped practices to compare with the data obtained from Phase I.

5. _Phase IV_, the game phase, consists of four randomly selected games videotaped in order to compare the coach's game behavior with her practice behavior exhibited in Phase III.

6. _Self-Assessment Feedback Instrument_ (SAFI) allows the monitoring of both the type and frequency of feedback provided either during or following physical performance.

7. _Systematic Supervisory Feedback_ (SSF) permits a facilitator to provide a teacher/coach with objective feedback concerning the behaviors exhibited during an instructional session.

Delimitations of the Study

The following were the delimitations of this investigation:

1. The subject was a female collegiate women's lacrosse coach from a Division III college during the 1991 season.

2. Only one feedback analysis system, the SAFI, was used to describe the coach's feedback patterns during this investigation.

3. The coach was the only one to choose the behaviors to be changed and to identify the strategies that would lead to the desired changes in those behaviors.

4. The subject was videotaped for only total of 12 entire practices and four randomly selected games.

Limitations of the Study

The following were the limitations of this study:

1. Only one coach was studied; therefore, the findings may be valid only for lacrosse coaches similar to the coach in this study.

2. The findings related to coaching feedback patterns may be valid only when the SAFI is used as an observation instrument and similar behaviors are chosen for improvement.

3. The findings may be valid only when the same criteria are used to define the four phases of the season.

Chapter 2

REVIEW OF RELATED LITERATURE

Literature relevant to this investigation will be reviewed in the following order: (a) characteristics of effective coaches, (b) systematic observation to change behaviors, (c) effect of feedback on performance, and (d) summary.

Characteristics of Effective Coaches

The basic task of teaching is to find ways to help students learn and grow, and to design educational experiences through which students will grow in skill, understanding, and attitude (Siedentop, 1983). In order to take on this task in a successful manner, coaches, who are also teachers, need to be aware of effective behavior patterns. They also need to be knowledgeable about their own personal behavior patterns in order to modify those behaviors that need to be changed in order to become more effective.

There have been many studies that have sought to identify the characteristics of an effective coach. A prominent figure in coaching, former UCLA basketball coach John Wooden, who compiled a record number 10 national championships in a 12-year span and a total of

14 conference championships, was studied by Tharp and Gallimore (1976). Emphasis on fundamentals, hard work, discipline, selflessness, and control were all visible elements of Wooden's practices. Instruction and hustle behaviors were also behaviors frequently exhibited by Wooden.

Seagrave and Ciancio (1990) studied the coaching behaviors of a successful Pop Warner football coach and compared the results to the studies that observed John Wooden, UCLA basketball coach (Tharp & Gallimore, 1976), and Frank Kush, Arizona State football coach. Instruction was the most frequently occurring behavior for all three coaches. It was noted that the Pop Warner coach motivated his players in a positive manner, and the collegiate coaches tended to be more negative.

Other researchers have also studied successful coaches. Praise and hustle behaviors were also important in encouraging athletes to maintain and intensify their efforts (Lacy & Goldston, 1990). Questioning athletes was found to be just as important to successful coaches as to unsuccessful coaches (Claxton, 1988).

Using CAFIAS and a modified version of the Coach's Performance Criteria Questionnaire (CPCQ), Avery (1978) studied the interaction patterns of effective and less effective interscholastic coaches. After viewing the tapes and scoring each coach on the CPCQ in order to determine effectiveness, Avery separated the coaches into two groups, 15 effective and 15 less effective coaches. The data showed that effective coaches used more praise and acceptance, while less effective coaches gave more criticism.

Perkins (1989) studied the characteristics of winning high school basketball coaches through the use of systematic observation. The specific coaching behaviors of nine male coaches were observed. These coaches had won more than 50% of their games over the past three seasons. There was found to be a significant difference in behaviors over the four time periods (pre-, early, mid-, and late season) during which the coaches were observed. Feedback, hustle, and praise were predominant among the behaviors that these successful coaches exhibited.

Lacy and Darst (1985) analyzed the teaching and coaching behaviors of winning high school football

coaches during practice sessions. Ten high school head

football coaches with 4 years coaching experience and a

winning percentage of at least .600 were observed three

times during the season: pre-season, early season, and

late season. Praise was used twice as much as scolding

behaviors, suggesting that more can be accomplished

when the coach is positive rather than negative.

Instruction was used more than twice as often than any

behavior in every phase, suggesting that informational

feedback is a prerequisite for effective teaching. It

was also noted that more behaviors occurred during pre-

season because more instruction occurred as the coaches

concentrated on teaching the basic fundamentals.

In 1988, Claxton studied the coaching behaviors of

more and less successful high school boys' tennis

coaches during practice sessions. In order to be

included in the study, successful coaches (n = 5) had

to have 70% career wins and had to have won 70% of

their matches during the 3 years prior to the study.

The less effective coaches (n = 4) each had a lifetime

win/loss record below 50% and a win/loss record below

50% for the 3 years prior to the study. Each coach was

observed once during each phase of the season: pre-

season, mid-season, and late season. The successful

coaches used pre-, concurrent, and post-instruction

20.1% of the time, while the less successful coaches

gave predominantly post-instruction. The successful

coaches also questioned their athletes twice as much as

their less successful counterparts.

Hirsch (1978), Proulx (1979), and Staurowsky

(1979) combined CAFIAS and the Group Environment Scale

to investigate coaching behaviors from satisfied and

less satisfied environments. Characteristics of

behaviors in a satisfied environment were more

interaction between the coach and the athletes and more

athlete-initiated behaviors, which were both coach and

athlete suggested. More verbal and nonverbal praise

and acceptance during practice sessions were used by

coaches in satisfied environments. Praise was non-

existent in the less satisfied environments.

In studying the interactive behavior of coaches

during competitive games, Lombardo (1983) discovered

that coaches spent approximately half of their time

observing, becoming absorbed in the action of the game,

and not interacting with the players. It was found

that the most common behavior communicated to the

athletes was either nonevaluative or instructive.
Winning coaches exhibited more behaviors than losing
coaches. Winning coaches were found to exhibit more
verbal, nonverbal, neutral, and negative interactions,
and losing coaches exhibited positive interactions
only. Coaches offered more individual interactions
when the score was tied.

Systematic Observation to Change Behaviors

In order for teaching skills to improve, there
must be goals, feedback on a regular basis, and
opportunities to improve (Siedentop, 1981, 1983).
Feedback is a necessary condition for learning.
Conventional supervisory feedback (CSF) is a
traditional approach to giving feedback. It deals with
feedback concerning class methodology, control, and
organization.

Systematic supervisory feedback (SSF) has gained
popularity in recent years. This method permits a
facilitator to provide a teacher/coach with objective
feedback concerning the behaviors exhibited at the
conclusion of an instructional session. Systematic
observation instruments are used to gather information
on the subject. This allows the subject to obtain an

objective profile of his/her teaching behavior. SSF, as compared to CSF, has proven to be more of a successful feedback tool (Barr, 1978; Mancini, Wuest, & van der Mars, 1985; Mancini, Clark, & Wuest, 1987). SSF, whether provided by a researcher or obtained through the process of self-assessment, can be used effectively to help teachers and coaches change their behaviors.

In summarizing various intervention studies, Mancini et al. (1985) reported that using CAFIAS as a feedback tool with pre-service physical education teachers led to more effective teaching. The pre-service teachers getting SSF praised and accepted their students' ideas and efforts more and made a greater use of questioning in their classes as compared to those pre-service teachers getting CSF. The pre-service teachers receiving SSF also scored higher on selected teacher effectiveness variables, had more positive attitudes, and were more aware of their teaching behaviors.

Using CAFIAS as a self-assessment instrument, Cusimano (1987) investigated the change in verbal teacher behavior in 15 elementary physical education

teachers. Prior to intervention, the control group and experimental group exhibited similar RPM for the defined verbal behaviors--positive specific feedback, corrective specific feedback, and acceptance of students' skill performance and ideas. Following intervention, there was a statistically significant difference between the groups on the use of positive specific feedback and corrective specific feedback. It was concluded that the intervention and self-assessment caused these changes. Although SSF has been used widely to help pre- and in-service teachers, little research has been conducted with coaches.

There have been only a few researchers that have studied the effect of SSF on coaches' behaviors. An investigation by Barr (1978) utilized SSF using CAFIAS to change coaches' behaviors. Using 20 coaches from three sports (basketball, softball, and baseball), Barr formed a control group that did not receive instruction in CAFIAS and an experimental group that did receive instruction in CAFIAS. The groups were videotaped three times, with the experimental group receiving SSF after the first two video sessions. There were changes in behavioral and instructional patterns, including a

greater use of praise, acceptance, questioning, and information-giving between Phases I and III. Barr concluded that instruction and SSF helped the coaches improve their behaviors.

In a study of an NCAA Division III field hockey coach, Mancini et al. (1987) used CAFIAS to show that the use of SSF led to favorable changes in a coach's behavior. The practices were videotaped during the four phases of the study. Following the acquisition of baseline data in Phase I, SSF was introduced in Phase II. During this phase, the coach set goals and developed strategies prior to each practice in an attempt to change her behavior. Following SSF, the post-treatment data in Phase III revealed that praise, acceptance, and athlete-initiated behavior increased while criticism decreased. Phase IV was conducted 1 year later to determine the lasting effects of SSF. After analyzing this last phase, the investigators found the changes in behaviors that occurred in the initial phases of the study were maintained over 1 year later. Perhaps coaches, like teachers who experience a positive change, are unlikely to return to their previous instructional patterns. It was reported that

watching oneself in action on a videotape was also helpful in gaining insight about one's behaviors. Although many coaches now videotape their games, few coaches videotape and analyze their practices. It was also noted that by watching the videotapes, the coach realized that she repeatedly used directives and criticism relating to skill performance but rarely told athletes how to correct their performance.

Self-assessment has also been used as a means of changing one's coaching behaviors. The SAFI in conjunction with the Group Time Management Instrument (GTMI), goal setting, and videotaping enabled a soccer coach to change his behaviors to more appropriate and desirable ones (Gula, 1989). The coach was videotaped during 15 practices that were divided into three phases. Data were obtained from each phase using the SAFI and the GTMI. The SAFI provided information about the type and frequency of the feedback being used, and the GTMI monitored the amount of time spent by the team on management, motor engagement, and instruction. During Phase I, baseline data were collected, with the information being used to set overall goals for the study. During Phase II, the treatment phase, the coach

set goals and developed strategies prior to each
practice in an attempt to change his behavior. The
coach viewed the videotape and reviewed information
from the SAFI and the GTMI. He then set goals and
developed strategies to reach his goals. Data from the
previous practice were then checked to determine if the
goals were attained. Data from Phase I and Phase III
were compared to determine whether any changes had
taken place. Increases were seen in instruction during
performance, praise/reinstruct, constructive criticism,
and constructive criticism followed by reinstruction.
Decreases were seen in criticism and giving directions.
It was also noted that practices became more organized
and efficient. The GTMI data indicated that the amount
of time spent on managerial tasks decreased by 12% from
Phase I to Phase III. Gula concluded that the use of
the SAFI and the GTMI in conjunction with videotaping
and goal setting can help coaches change their
behaviors to more appropriate and desirable ones.

Gordon (1991) determined the effectiveness of
self-assessment as a means of changing a basketball
coach's behaviors. The SAFI was also used in this
study, and procedures similar to those used in Gula's

study were employed. Analysis of the SAFI data revealed that the behaviors of the coach significantly changed from Phase I to Phase III. An increase in instruction following praise and criticism suggests the coach did more teaching and less directing. Question usage also increased as well as usage of hustle behaviors. Practice sessions became more personalized as the use of the player's first names increased in RPM. The coach was able to make these changes by setting specific goals and strategies during Phase II of the study. With the use of systematic observation and self-assessment, teachers/coaches have become aware of their personal teaching patterns.

Researchers have determined that many teachers are not aware of the behaviors they exhibit during physical education classes (e.g., van der Mars, Mancini, & Frye, 1981). Several researchers have found this to be the case for coaches as well (Mancini et al., 1987; Marcinek, 1988; Norton, 1988; Wandzilak, Ansorge, & Potter, 1988). Marcinek studied 20 high school basketball coaches. Using CAFIAS, he found that coaches tended to overestimate the amount of praise, criticism, and questioning they used. They

underestimated the time devoted to teaching and lecturing during their practices. As a result of coaches' inability to accurately perceive their behaviors, the players' performance may be hampered as well as the progress of the team. If coaches are to become more aware of their coaching behaviors, they need to spend time identifying their interaction patterns with their athletes.

Qualitative research can be used to provide insight about coaches' behaviors. For example, Norton (1988) studied the interaction patterns of a collegiate lacrosse coach with her low- and high-skilled players using the Dyadic Adaptation of CAFIAS (DAC) and employed qualitative methodology to assess the coach's goals and behavior intentions during practice. The DAC data revealed a greater number of interactions were recorded between the coach and the high-skilled athletes. There was also a higher percentage of acceptance, praise, and questioning with the high-skilled athletes during all three phases of the study. Low-skilled athletes received significantly greater amounts of direction during all three phases of the study that led to greater predictable responses by

those athletes. The coach treated athletes differently according to their ability, but the qualitative data revealed that she did not always realize it. It was suggested that coaches who are aware of this tendency may be able to treat their athletes equally and set up high expectations for all to achieve what they are capable of accomplishing.

Effect of Feedback on Performance

Knowledge about response proficiency informs the learner about the competence of a movement either during or after a response and appears to be critical for learning. Failure to provide such information in some instances prevents learning altogether (Schmidt, 1982). Feedback provides athletes with information about their performance. Knowledge of results (KR), as defined by Schmidt, is verbal, terminal feedback about movement proficiency. This type of feedback is provided at the end of a skill attempt. KR deals with the movement outcome and serves three important functions in learning: error correction, motivation, and reinforcement (Magill, 1985).

KR leads to more efficient error correction. Error correction will occur more readily with KR than

without. KR helps athletes make adjustments in their

performance and reinforces the athletes' efforts.

After completing a skill and receiving positive

feedback by the coach, the athlete, it is hoped, will

perform the next trial in the same manner, thus

creating reinforcement. KR also relates to an

individual's goals which, in turn, creates motivation.

For example, if an athlete is weak in a particular

skill, he/she may set a goal in order to monitor

his/her progress. KR will help the athlete progress

toward proficiency which, in turn, may motivate the

athlete to work harder towards the goal. If KR is not

provided, the learner may lose interest because he/she

will not see the progress (Schmidt, 1982).

Kleinman (1983) states that "the axiom 'practice

makes perfect' is, in reality, predicated upon the fact

that learning is the result of practice which is

accompanied by information feedback, which is itself

initially reinforced by the presentation of KR" (p.

200). Teachers who provide their students with

specific verbal feedback and frequent opportunities to

practice a skill can favorably increase student

learning (Paese, 1987).

The quality or efficiency of the pattern of movement is known as knowledge of performance (KP) (Kerr, 1982). In other words, KP deals with the biomechanical aspects of a skill.

When learning motor skills, an athlete requires both KR and KP. In order for the athlete to know if he/she was successful at the task, he/she needs KR; if changes need to made in the movement he/she has selected, KP is needed in order to make those necessary changes. Coaches must also consider the timing of the KR and KP when providing athletes with feedback.

The three types of feedback commonly used by teachers/coaches are concurrent, intermittent, and terminal feedback (Kleinman, 1983; Schmidt, 1982). Concurrent feedback occurs through the entire duration of the activity, while intermittent feedback is provided at intervals during the activity. Terminal feedback follows the completion of the activity or skill. Markland and Martinek (1988) found that volleyball players who were given immediate corrective terminal feedback became more successful than those who did not receive this type of feedback. Whatever type of feedback is used, it appears that modeling in a

positive-negative-positive manner is an excellent way
of providing both feedback and discrimination training
(Tharp & Gallimore, 1976). Siedentop (1983) explains
that the more highly skilled an athlete becomes, the
more he/she can benefit from highly precise information
in the feedback statement.

In comparing coaches' game behavior to their
practice behavior, Wandzilak et al. (1988) found that
coaches gave feedback at a faster rate during games.
This feedback, however, is more encouraging in nature
and focuses less on the organization and performance of
skill. Execution of strategies becomes the main focus
of feedback during a game. Feedback during competition
becomes difficult for athletes to receive because in
the flow of the game athletes may not hear all the
information the coach is giving.

Summary

The basic task of teaching is to find ways to help
our students learn and grow. In order to accomplish
this, coaches must become aware of effective behavior
patterns, and need to be knowledgeable about their own
personal patterns in order to modify those behaviors
that need to be changed.

There have been many studies that have sought to
identify the characteristics of an effective coach.
Instruction and hustle were the top two behaviors found
in effective coaches (Claxton, 1988; Lacy & Darst,
1985; Lacy & Goldston, 1990; Seagrave & Cianco, 1990;
Tharp & Gallimore, 1976). Avery (1978) studied the
interaction patterns of effective and less effective
interscholastic coaches and found praise and acceptance
prevalent among the successful coaches. Perkins (1989)
studied the characteristics of winning high school
basketball coaches and discovered that feedback,
hustle, and praise were the most frequently used
behaviors.

In comparing the behaviors of successful and less
successful coaches, Rotsko (1979) found verbal and
nonverbal praise, verbal and nonverbal acceptance, and
verbal and nonverbal questioning were more prevalent in
successful coaches. Less successful coaches gave more
directions, and successful coaches were more indirect
in their teaching.

Hirsch (1978), Proulx (1979), and Staurowsky
(1979) investigated coaching behaviors in satisfied and
less satisfied environments. Characteristics of

behaviors in a satisfied environment were more interaction between the coach and the athletes and more athlete-initiated behaviors, which were both coach and athlete suggested. More verbal and nonverbal praise and acceptance during practice sessions were used by coaches in satisfied environments. Extended information given by coaches in the satisfied environments occurred less frequently. Praise was non-existent in the less satisfied environments.

The high percentage of time devoted to academic content and the rate of on-task behavior among students can be intensified through the use of SSF (Siedentop, 1983). A collegiate field hockey coach increased praise and athlete-interpreted behavior and decreased the use of criticism and athlete predictable behavior through the use of SSF (Mancini et al., 1987). Using CAFIAS, Barr (1978) illustrated how SSF can be used to help coaches meet the needs of their athletes. There was also strong support for the inclusion of SSF in undergraduate physical education preparation programs (Mancini et al., 1985). The pre-service instructors who received SSF used praise, accepted students' ideas and efforts, and asked questions more often than their

peers who had received CSF.

Coaches are not often aware of their teaching behaviors or what occurs in their practices (Grant et al., 1990; Mancini et al., 1987; Marcinek, 1988; Norton, 1988; Wandzilak et al., 1988). Through the use of SSF, coaches can become more aware of their behaviors and more effective in enhancing their athletes' performance.

Self-assessment has also been used a means of changing a coach's behavior. Gula (1989) used the SAFI in conjunction with the GTMI to help a soccer coach's behaviors become more effective. Gordon (1991) determined self-assessment was an effective means of changing a basketball coach's behavior.

Feedback that provides information about movement outcomes can aid athletes in mastering a skill. KR provides athletes with a basis for changing a movement leading to a correct performance (Schmidt, 1982), and KP aids in the quality and efficiency of the pattern of movement (Kerr, 1982). This also has the effect of creating an increased interest in the task and the desire to do well which, in turn, increases motivation.

Through the use of SSF, a coach can become a more

effective educator because he/she will be more aware of which behavior and interaction patterns bring success to the task at hand.

Chapter 3

METHODS AND PROCEDURES

In this chapter, the methods and procedures employed in this investigation are discussed. It includes the selection of the subjects, the data collection instrument, procedure, method of data collection, scoring of data, coder reliability, treatment of data, and summary.

Selection of Subjects

The subjects were a female NCAA Division III varsity lacrosse coach and her 20 female athletes. The coach and her athletes were videotaped during their normal practices and games. All subjects signed an informed consent form (See Appendices A and B).

Data Collection Instrument

The systematic observation instrument used to describe the feedback patterns of the coach was the Self-Assessment Feedback Instrument (SAFI) (Mancini & Wuest, 1989) (See Appendix C). This instrument allows the monitoring of both the type and the frequency of feedback provided either during or following physical performance. It is non-evaluative and merely describes behaviors as they occur. Although the SAFI is designed

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for self-assessment, it can be used by a trained
researcher to gather information about a subject's
feedback behaviors. The SAFI provided quantitative
data about the coach's behavior.

Procedure

The investigator personally contacted the coach
and informed her of the purpose of this study. The
coach was videotaped for 12 practices and 4 randomly
selected games. The coach wore a wireless microphone
during the videotaping sessions. Three practices were
videotaped in the first phase, six in the second, and
three in the third phase. Four randomly selected games
were videotaped in the fourth phase. All practices and
games were coded by the investigator using the SAFI.
Percentages and RPM for each of the behaviors listed in
the SAFI were calculated.

Phase I, the pre-treatment phase, consisted of
three practices in which baseline data were collected.
Each of the three practices were videotaped and coded
using the SAFI. Data were compiled from all three
practices to form a coaching profile for the subject.
This profile consisted of percentages and RPM for each
of the behaviors listed in the SAFI.

Phase II, known as the treatment phase, consisted of six practices. Each of the practices was videotaped and coded using the SAFI. At the beginning of this phase, the baseline data were reviewed by the coach and the researcher. By viewing excerpts of the tapes and reviewing the SAFI data, the coach determined which behaviors she wanted to change and chose target percentages and RPM to be attained for each of those behaviors before the next practice. Each day, the coach and the researcher reviewed the SAFI data and relevant excerpts on the videotape from the previous day's practice. The coach received feedback on whether she attained her goals during that practice. After the review, goals for the next practice session were established and strategies to attain them identified.

Phase III, known as the post-treatment phase, consisted of three practices. These three practices were videotaped and coded using the SAFI and percentages, and RPM were calculated for each practice. Phase I and III, pre- and post-treatment data, were compared to see if the coach met her overall behavioral goals.

Four randomly selected games were videotaped and

comprised Phase IV. The coach's behavior during these
games was coded using the SAFI. Data were compiled
from the four games to form a coaching profile of game
behaviors. This profile consisted of percentages and
RPM for each of the behaviors listed in the SAFI. It
should be noted that game situations are uncontrollable
and that the coach interacts mainly with starters. The
coaching profile formed during this phase was used to
compare game behavior with the practice behavior from
Phase III.

Method of Data Collection

Data for the final analysis were obtained from the
16 videotapes taken of the coach. The videotapes were
coded using the SAFI.

Scoring of Data

The percentage of time spent on each behavior and
the RPM of each behavior was determined. These values
were used to compare the behaviors in each phase.

Coder Reliability

In order to establish the coder reliability of the
investigator, two randomly selected practices (one from
Phase II and one from Phase III) were coded at two
different settings and subjected to the Spearman rank-

order correlation. Furthermore, one randomly selected practice from Phase I was coded simultaneously by Dr. Victor H. Mancini, an expert coder, and the investigator. The obtained rankings were also subjected to the Spearman rank-order correlation to check the investigator's reliability against an expert's.

Treatment of Data

Descriptive statistics were calculated for each phase. Percentages and RPM for each of the categories listed in the SAFI were visually compared to determine whether any changes in the coach's behavior occurred.

Summary

The subjects consisted of one female lacrosse coach and her female team of 20 athletes from an NCAA Division III college. During the 1991 season, 16 practices and four randomly selected games were videotaped. The videotapes were coded using the SAFI. Using the SAFI data, the coach was able to identify her behavioral patterns. She was then able to choose those behaviors that she wanted to improve and identify strategies that would lead to the desired changes in those behaviors. The SAFI was used to monitor the

coach's progress towards her desired goals.
Descriptive statistics were used to compare differences
in the coach's behavior during the four phases and to
ascertain if supervisory feedback was effective in
changing a coach's behaviors.

Chapter 4

ANALYSIS OF DATA

The purpose of this research was to determine the effectiveness of supervisory feedback in changing a coach's behavior. The subjects were a female collegiate lacrosse coach and her 20 female athletes. The coach and her team were videotaped for a total of 12 practices and 4 games.

Presented in this chapter are the descriptive statistics of the data collected in this study. This chapter has been divided into five sections: coder reliability, analysis of coach's feedback data, analysis of coach's goals and strategies, analysis of practice feedback versus game feedback, and summary.

Coder Reliability

The Spearman rank-order correlation was used to assess coder reliability for this investigation. One randomly selected practice from Phase I was coded by Dr. Victor H. Mancini, an expert coder, and the investigator. The correlation obtained was .934, which was indicative of the investigator's coder reliability.

To determine the reliability of the investigator against herself, two randomly selected practices (one

from Phase II and one from Phase III) were coded at two
different sittings and subjected to the Spearman rank-
order correlation. The correlations obtained were .95
and .98, which were indicative of the investigator's
coder reliability.

Analysis of Coach's Feedback Data

Table 1 gives an overall view of the circumstances
under which this study occurred and the changes that
happened throughout each of the four phases. This
table shows the number of practices per phase, the
total number of minutes per phase, and the total number
of behaviors per phase. Also shown are the means of
the minutes observed and the behaviors exhibited during
that time. The means show an increase in behaviors
from Phase I to Phase III, but, at the same time, show
an increase in minutes. This occurred because
practices are shorter during pre-season due to facility
scheduling. The RPM show little change from Phase I to
Phase III. Table 2 shows the coach's complete
behavioral profile for Phase I. It shows the feedback
behaviors of the coach during Phase I of the study.
The percentages for each behavior, along with the RPM
of each behavior, were used to set goals for Phase II.

Table 1

General Overview of Phases I-IV

	Phase			
	I	II	III	IV
# of Practices	3	6	3	4
Total Minutes	206.0	539.0	258.0	269.0
M Minutes	68.7	89.3	86.0	67.3
Total Behaviors	1844.0	5072.0	2107.0	956.0
M Behaviors	614.7	845.3	702.3	239.0
M RPM	1.0	1.0	0.9	0.7

Table 2

Coach Behavioral Profile: Phase I

Category	Total Behaviors	Percentage	RPM
Praise (2)	209	11.3	1.0
Praise/Reinstruct (2-5)	112	6.1	0.5
Acceptance (3)	5	0.2	0.0
Questions (4)	29	1.5	0.1
Instruction During Performance (8-5, 8\-5 or 9-5)	343	18.6	1.7
Gives Directions (6)	234	12.6	1.1
Hustle Behaviors (6H)	117	6.3	0.6
Criticism (7)	29	1.6	0.1
Constructive Criticism (7-2)	24	1.3	0.1
Criticism/Reinstruct (7-5)	65	3.5	0.3
Constructive Criticism/ Reinstruct (7-2-5)	14	0.7	0.1
Extended Information (5-5)	663	35.9	3.2
Names	610	--- [a]	3.0

Note. Total min = 206. Total behaviors = 1,844.

[a]Names are not included in percentages because they are used in conjunction with other feedback statements.

Prior to any feedback, the coach spent 49% of the
practice time giving directions and information in an
extended manner. This significantly impacted on the
amount of activity time for the team. Instruction
during performance, praise, and praise/reinstruction
were the next most frequently occurring behaviors,
accounting for 36% of the behaviors. Criticism was
seldom used by the coach.

Table 3 shows the coach's behavioral profile
following the supervisory feedback of Phase II. During
the intervention, the coach set goals and developed
strategies to meet them. Significant changes were seen
in praise/reinstruct, praise, instruction during
performance, and extended information.

The specific results recorded in each practice of
Phase II, Tables 4 through 9, indicate the changes that
took place following each self-assessment period. The
coach's general goals were to create a more positive
environment and, at the same time, provide a lot of
specific feedback. In the first practice of Phase II,
praise/reinstruct and criticism/reinstruct both
increased significantly, with the former going from 112
behaviors in all of Phase I to 97 behaviors in one

Table 3

Coach Behavioral Profile: Phase II

Category	Total Behaviors	Percentage	RPM
Praise (2)	359	7.0	0.7
Praise/Reinstruct (2-5)	484	10.0	0.9
Acceptance (3)	18	0.3	0.0
Questions (4)	101	2.0	0.2
Instruction During Performance (8-5, 8\-5, 9-5)	1172	23.0	2.2
Gives Directions (6)	523	10.0	1.0
Hustle Behaviors (6H)	494	10.0	1.0
Criticism (7)	20	0.3	0.0
Constructive Criticism (7-2)	28	0.5	0.1
Criticism/Reinstruct (7-5)	329	6.0	0.6
Constructive Criticism/ Reinstruct (7-2-5)	114	2.0	0.2
Extended Information (5-5)	1430	28.0	2.7
Names	1584	--- [a]	2.9

Note. Total min = 539. Total behaviors = 5,072.

[a]Names are not included in percentages because they

are used in conjunction with other feedback statements.

Table 4

Percentages and RPM During Practice 1 of Phase II

Category	Total Behaviors	Percentage	RPM
Praise (2)	62	5.8	0.7
Praise/Reinstruct (2-5)	97	9.1	1.1
Acceptance (3)	2	0.2	0.0
Questions (4)	8	0.7	0.1
Instruction During Performance (8-5, 8\-5 or 9-5)	169	15.9	1.9
Gives Directions (6)	84	7.9	0.9
Hustle Behaviors (6H)	95	8.9	1.1
Criticism (7)	8	0.7	0.1
Constructive Criticism (7-2)	10	0.9	0.1
Criticism/Reinstruct (7-5)	55	5.2	0.6
Constructive Criticism/ Reinstruct (7-2-5)	17	1.6	0.2
Extended Information (5-5)	371	35.0	4.1
Names	332	--- a	3.7

Note. Total min = 90. Total behaviors = 1058.

aNames are not included in percentages because they

are used in conjunction with other feedback statements.

Table 5

Percentages and RPM During Practice 2 of Phase II

Category	Total Behaviors	Percentage	RPM
Praise (2)	40	8.0	0.7
Praise/Reinstruct (2-5)	41	8.2	0.7
Acceptance (3)	4	0.8	0.1
Questions (4)	7	1.4	0.1
Instruction During Performance (8-5, 8\-5 or 9-5)	93	18.6	1.6
Gives Directions (6)	51	10.2	0.8
Hustle Behaviors (6H)	46	9.2	0.8
Criticism (7)	1	0.2	0.0
Constructive Criticism (7-2)	4	0.8	0.1
Criticism/Reinstruct (7-5)	37	7.4	0.6
Constructive Criticism/ Reinstruct (7-2-5)	2	0.4	0.0
Extended Information (5-5)	173	34.6	2.9
Names	168	--- ᵃ	2.8

Note. Total min = 60. Total behaviors = 499.

ᵃNames are not included in percentages because they are used in conjunction with other feedback statements.

Table 6

Percentages and RPM During Practice 3 of Phase II

Category	Total Behaviors	Percentage	RPM
Praise (2)	71	6.8	0.7
Praise/Reinstruct (2-5)	122	11.8	1.2
Acceptance (3)	4	0.4	0.0
Questions (4)	21	2.0	0.2
Instruction During Performance (8-5, 8\-5 or 9-5)	253	24.9	2.5
Gives Directions (6)	79	7.6	0.8
Hustle Behaviors (6H)	77	7.4	0.8
Criticism (7)	6	0.6	0.1
Constructive Criticism (7-2)	7	0.7	0.1
Criticism/Reinstruct (7-5)	73	7.1	0.7
Constructive Criticism/ Reinstruct (7-2-5)	54	5.2	0.5
Extended Information (5-5)	267	25.8	2.6
Names	485	--- [a]	4.2

Note. Total min = 103. Total behaviors = 1034.

[a]Names are not included in percentages because they are used in conjunction with other feedback statements.

Table 7

Percentages and RPM During Practice 4 of Phase II

Category	Total Behaviors	Percentage	RPM
Praise (2)	76	7.9	0.7
Praise/Reinstruct (2-5)	80	8.4	0.7
Acceptance (3)	6	0.6	0.1
Questions (4)	19	1.9	0.2
Instruction During Performance (8-5, 8\-5 or 9-5)	285	29.9	2.8
Gives Directions (6)	68	7.2	0.7
Hustle Behaviors (6H)	96	10.1	0.9
Criticism (7)	3	0.3	0.0
Constructive Criticism (7-2)	3	0.3	0.0
Criticism/Reinstruct (7-5)	69	7.2	0.7
Constructive Criticism/ Reinstruct (7-2-5)	14	1.5	0.1
Extended Information (5-5)	232	24.4	2.3
Names	400	--- [a]	3.9

Note. Total min = 102. Total behaviors = 951.

[a]Names are not included in percentages because they are used in conjunction with other feedback statements.

Table 8

Percentages and RPM During Practice 5 of Phase II

Category	Total Behaviors	Percentage	RPM
Praise (2)	49	6.7	0.7
Praise/Reinstruct (2-5)	47	6.5	0.6
Acceptance (3)	2	0.3	0.0
Questions (4)	12	1.6	0.2
Instruction During Performance (8-5, 8\-5 or 9-5)	154	21.2	2.1
Gives Directions (6)	175	24.1	2.4
Hustle Behaviors (6H)	63	8.7	0.9
Criticism (7)	1	0.1	0.0
Constructive Criticism (7-2)	3	0.4	0.0
Criticism/Reinstruct (7-5)	40	5.5	0.6
Constructive Criticism/ Reinstruct (7-2-5)	3	0.4	0.0
Extended Information (5-5)	176	24.3	2.4
Names	205	--- [a]	2.8

Note. Total min = 73. Total behaviors = 725.

[a]Names are not included in percentages because they are used in conjunction with other feedback statements.

Table 9

Percentages and RPM During Practice 6 of Phase II

Category	Total Behaviors	Percentage	RPM
Praise (2)	61	6.9	0.6
Praise/Reinstruct (2-5)	97	10.9	0.9
Acceptance (3)	0	0.0	0.0
Questions (4)	34	3.8	0.3
Instruction During Performance (8-5, 8\-5 or 9-5)	218	24.6	2.0
Gives Directions (6)	66	7.5	0.6
Hustle Behaviors (6H)	117	13.2	1.1
Criticism (7)	1	0.1	0.1
Constructive Criticism (7-2)	1	0.1	0.1
Criticism/Reinstruct (7-5)	55	9.9	0.5
Constructive Criticism/ Reinstruct (7-2-5)	24	2.7	0.2
Extended Information (5-5)	211	23.8	1.9
Names	443	--- [a]	4.0

Note. Total min = 110. Total behaviors = 885.

[a]Names are not included in percentages because they are

used in conjunction with other feedback statements.

practice alone, while the latter went from 65 behaviors in Phase I to 55 behaviors in one practice alone. These two categories consistently increased throughout Phase II. As Phase II progressed, it was evident that the coach was teaching more by constantly reinstructing after she made a comment to a player. Instruction during performance steadily increased throughout practices 1 through 6 of Phase II, peaking at practice 4 with 29.9%, while extended information steadily decreased during the same time frame. This contributed to more active instruction and less standing around throughout Phase II. There was a significant increase in the use of constructive criticism followed by reinstruction, changing from a value of 0.7% in Phase I to a value of 5.2% in practice 3 of Phase II. Throughout Phase II, hustle behaviors and criticism/reinstruct rose steadily and never dropped near the percentage that occurred in Phase I. It was evident that treatment and intervention during Phase II had a significant impact on the coach's behavior.

Table 10 presents the coach's behavioral profile at the conclusion of Phase III, which is the post-intervention phase. In analyzing this data, it was

Table 10

Coach Behavioral Profile: Phase III

Category	Total Behaviors	Percentage	RPM
Praise (2)	174	8.2	0.7
Praise/Reinstruct (2-5)	196	9.3	0.8
Acceptance (3)	3	0.1	0.0
Questions (4)	43	2.0	0.2
Instruction During Performance (8-5, 8\-5 or 9-5)	547	25.9	2.1
Gives Directions (6)	141	6.6	0.6
Hustle Behaviors (6H)	225	10.6	0.9
Criticism (7)	9	0.4	0.0
Constructive Criticism (7-2)	23	1.1	0.1
Criticism/Reinstruct (7-5)	93	4.4	0.4
Constructive Criticism/ Reinstruct (7-2-5)	89	4.2	0.3
Extended Information (5-5)	564	26.6	2.2
Names	764	--- [a]	3.0

Note. Total min = 258. Total behaviors = 2,107.

[a]Names are not included in percentages because they are

used in conjunction with other feedback statements.

concluded that supervisory feedback helped the coach change her behaviors in accordance to the goals she set following Phase I.

In analyzing the SAFI data, Table 11 reveals little change in the use of questions, constructive criticism, and criticism/reinstruct. The use of hustle behaviors, praise/reinstruct, and constructive criticism followed by reinstruction increased moderately from Phase I to Phase III, while praise decreased moderately from Phase I to Phase III. The use of instruction during performance increased significantly from Phase I to Phase III, and the use of directions and extended information decreased significantly from Phase I to Phase III.

The RPM of each behavior was also observed and is shown in Table 12. The rate at which praise was given slightly decreased, while praise/reinstruct slightly increased from Phase I to Phase III. Instruction during performance increased from a value of 1.7 to 2.1, and extended information decreased from a value of 3.0 to 2.2. Directions decreased from a value of 1.1 to .6, and hustle behaviors rose from a value of .6 to .9. The coach's use of criticism and constructive

Table 11

Percentages of Behaviors Exhibited by the Coach: Phases
I-IV

Category	Phase			
	I	II	III	IV
Praise (2)	11.3	7.0	8.2	11.8
Praise/Reinstruct (2-5)	6.1	9.5	9.3	6.7
Acceptance (3)	0.2	0.3	0.1	0.0
Questions (4)	1.5	1.9	2.0	0.0
Instruction During Performance (8-5, 8\-5 or 9-5)	18.6	23.1	25.9	35.8
Gives Directions (6)	12.6	10.3	6.6	0.0
Hustle Behaviors (6H)	6.3	9.7	10.6	33.5
Criticism (7)	1.6	0.3	0.4	0.5
Constructive Criticism (7-2)	1.3	0.5	1.1	1.0
Criticism/ Reinstruct	3.5	6.4	4.4	5.6
Constructive Criticism/ Reinstruct (7-2-5)	0.7	2.2	4.2	4.4
Extended Information (5-5)	35.5	28.2	26.6	0.0

Table 12

RPM of Behaviors Exhibited by the Coach: Phases I-IV

Category	Phase			
	I	II	III	IV
Praise (2)	1.0	0.7	0.7	0.0
Praise/Reinstruct (2-5)	0.5	0.9	0.7	0.2
Acceptance (3)	0.0	0.0	0.0	0.0
Questions (4)	0.1	0.2	0.2	0.0
Instruction During Performance (8-5, 8\-5 or 9-5)	1.7	2.2	2.1	1.3
Gives Directions (6)	1.1	1.0	0.6	0.4
Hustle Behaviors (6H)	0.6	1.0	0.9	1.2
Criticism (7)	0.1	0.0	0.0	0.0
Constructive Criticism (7-2)	0.1	0.1	0.1	0.0
Criticism/ Reinstruct (7-5)	0.3	0.6	0.4	0.2
Constructive Criticism/ Reinstruct (7-2-5)	0.1	0.2	0.3	0.2
Extended Information (5-5)	3.2	2.7	2.2	0.0
Names	3.0	2.9	3.0	2.0

criticism   decreased,   while   criticism/reinstruct
and constructive criticism/reinstruct increased, with
the latter increasing significantly. The RPM of
players' names remained the same at 3.0.

Analysis of Coach's Goals and Strategies

At the beginning of each of the six practices in
Phase II, the coach set specific goals for each of the
SAFI categories. At the end of each practice, the
videotapes were coded using the SAFI, and the data were
analyzed and compared to the goals set for that day so
as to indicate progress toward the overall goals. In
order to reach these goals, the coach developed
strategies to be used during the six practices of Phase
II. At the conclusion of each practice session during
Phase II, the coach compared the actual SAFI data with
the goals she had set for that practice. This allowed
the coach to monitor her behavior changes as they
occurred.

Increase in instruction during performance, hustle
behaviors, question usage, praise/reinstruct, and
constructive criticism/reinstruct were the overall
goals set by the coach. Table 13 discusses these
goals, strategies used to attain them, and whether the

Table 13

General Goals and Strategies Developed for Phase II and

Assessment of Their Accomplishment

Goal	Strategy	Assessment
Use more praise reinstruction.	When using praise, always tell the athlete what is being praised.	Praise/reinstruct increased from 6.1% to 9.3%.
Use more hustle behaviors.	Emphasize hustle during drills.	Hustle increased from 6.3% to 10.6%.
Ask more questions.	Ask questions that deal with the content of the practice and its objectives.	Question usage remained constant at 2%, although the questions became more specific.
Use more constructive criticism followed by reinstruction.	Be conscious of "good" before discussing "bad."	Constructive criticism followed by reinstruction increased from .7% to 4.2%.
Use more criticism with reinstruction.	When criticizing, always tell the athlete how to correct the error.	Criticism followed by reinstruction increased from 3.5% to 4.4%.
Give more instruction during performance.	Correct the error as soon as it occurs.	Instruction during performance increased from 18.6% to 25.9%.

the desired goals were achieved. Tables 14 through 19
indicate the goals and specific strategies developed by
the coach for each practice during Phase II.

Throughout Phase II, the coach was able to improve
her behaviors to meet her goals. Praise followed by
reinstruction increased from 6.1% in Phase I to 9.3% in
Phase III. By emphasizing hustling during drills, the
coach increased her hustle behaviors from 6.3% in Phase
I to 10.6% in Phase III. Question usage remained
constant at approximately 2% throughout the study, but
the content of the questions became more task-relevant.
Constructive criticism followed by reinstruction, which
was almost non-existent during Phase I at 0.7%,
increased to 4.2% in Phase III. By becoming more
conscious of correcting an athlete's error, the coach
increased criticism followed by reinstruction from 3.5%
in Phase I to 4.4% in Phase III. The last goal was to
provide more instruction during performance. This
behavior increased from 18.6% in Phase I to 25.9% in
Phase III.

During Practice 1 of Phase II, the coach was able
to meet her goal of increasing her praise/reinstruct
behavior while decreasing praise. These goals were

Table 14

Specific Goals and Strategies Developed for Practice 1

of Phase II and Assessment of their Accomplishment

Goal	Strategy	Assessment
Use a higher percentage of praise/ reinstruct as compared to praise alone.	Tell the athlete what was praised. Also add the player's name to the feedback statement.	Praise/reinstruct increased from 6% in Phase I to 9% in Practice 1. Praise decreased from 11% to 6%.

Table 15

Specific Goals and Strategies Developed for Practice 2

of Phase II and Assessment of their Accomplishment

Goal	Strategy	Assessment
Ask more questions.	Check for understanding after a play has been taught.	Minimal increase of .7% to 1%.
Increase hustle behaviors; also change tone of voice to one of enthusiasm.	During drills try to motivate the team.	This behavior remained constant at 9%. Tone of voice did change as shown in the videotape.

Table 16

Specific Goals and Strategies Developed for Practice 3

of Phase II and Assessment of their Accomplishment

Goal	Strategy	Assessment
Ask more questions.	Ask questions after each progression of teaching a play.	Questions increased from .7% to 1%.
Use more constructive criticism followed by reinstruction.	Say something positive before reinstructing.	There was an increase of .2% to 5%.
Use more instruction during performance.	During drills, constantly give corrective feedback.	The value rose from 19% to 24%.

Table 17

Specific Goals and Strategies Developed for Practice 4

of Phase II and Assessment of their Accomplishment

Goal	Strategy	Assessment
Increase hustle behaviors.	Push the team constantly.	There was an increase from 7% to 10%.
Use more instruction during performance.	During drills, constantly use corrective cues.	There was an increase from 24% to 30%.

Table 18

Specific Goals and Strategies Developed for Practice 5

of Phase II and Assessment of their Accomplishment

Goal	Strategy	Assessment
Use hustle 10% of the time.	Emphasize hustle during scrimmage play.	This behavior occurred 9% of the time.

Table 19

Specific Goals and Strategies Developed for Practice 6

of Phase II and Assessment of their Accomplishment

Goal	Strategy	Assessment
Use more constructive criticism followed by reinstruction.	Before making a comment, find a positive aspect of the performance and comment on that first.	This behavior increased from .2% to 3%.

were met, with praise/reinstruct increasing from 6.1%
in Phase I to 9.1% in practice 1 of Phase II, while
praise decreased from 11.3% in Phase I to 5.8% in
Practice 1 of Phase II.

Before Practice 2 of Phase II, the coach set goals
of asking more questions and increasing hustle
behaviors. Along with increasing hustle behaviors, the
coach also wanted to change her tone of voice to one of
enthusiasm to help promote effort and hustle. The
goals of increasing hustle behaviors and question usage
were not met. However, it was evident by watching the
videotape that the coach's tone of voice changed and
become more motivational.

Practice 3 of Phase II saw the coach set three
goals and reach each one of them. The coach once again
tried to use more questions and was successful with an
increase of 7 questions asked during Practice 2 of
Phase II to 21 questions asked during Practice 3 of
Phase II. Constructive criticism followed by
reinstruction went from .2% in Practice 2 of Phase II
to 5% during Practice 3 of Phase II. By constantly
using corrective cues during drills, the coach
increased instruction during performance from 19% in

Practice 2 of Phase II to 24% in Practice 3 of Phase
II.

Practice 4 of Phase II saw instruction during
performance once again rise from 24% during Practice 3
of Phase II to 30% in Practice 4 of Phase II. The
coach also tried to improve upon hustle again. An
increase from 7% in Practice 3 of Phase II to 10% in
Practice 4 of Phase II was recorded.

The coach set a goal of using 10% hustle behaviors
during Practice 5 of Phase II. She wanted to emphasize
hustle during scrimmage play and was nearly successful
in reaching this goal. Hustle behaviors accounted for
9% of her behaviors during practice.

In an effort to increase constructive criticism
followed by reinstruction, the coach tried to focus on
a positive aspect of the performance before commenting
on the correction. An increase from 0.2% during
Practice 6 of Phase II to 3% during Practice 6 of Phase
II was evident.

Analysis of Practice Feedback versus Game Feedback

Table 20 shows the coach's behavioral profile for
Phase IV. The coach's behaviors were monitored during
four games and coded using the SAFI. The data were

Table 20

Coach Behavioral Profile: Phase IV

Category	Total Behaviors	Percentage	RPM
Praise (2)	113	12.0	0.4
Praise/Reinstruct (2-5)	65	7.0	0.2
Acceptance (3)	0	0.0	0.0
Questions (4)	3	. 0.3	0.0
Instruction During Performance (8-5, 8\-5)	343	36.0	1.3
Gives Directions (6)	1	0.1	0.4
Hustle Behaviors (6H)	320	33.0	1.2
Criticism (7)	5	0.5	0.1
Constructive Criticism (7-2)	10	1.0	0.0
Criticism/Reinstruct (7-5)	54	6.0	0.2
Constructive Criticism/ Reinstruct (7-2-5)	42	4.0	0.2
Extended Information (5-5)	0	0.0	0.0
Names	469	---ᵃ	2.0

Note. Total min = 269. Total behaviors = 956.

ᵃNames are not included in percentages because they

are used in conjunction with other feedback statements.

used solely to compare the type of feedback used during practices and during games. The game phase, known as Phase IV, was compared to Phase III to note any similarities or contrasts.

Phase III and Phase IV were compared to see if there was a difference in practice feedback versus game feedback. The coach exhibited considerably more hustle behaviors and instruction during performance during games than during practice. She used more names during practice than in a game situation. Praise was also higher during game situation and praise followed by reinstruction was higher during practice.

Summary

The effectiveness of using supervisory feedback as a means of changing a coach's behavior was analyzed. The SAFI was used to gather data on the coach's behaviors. Variations between Phase I and Phase III were compared to determine if Phase II, the treatment phase, was effective in changing the coach's behavior. Phase IV, the game phase, was compared to Phase III to discover if there was a difference between practice and game feedback.

The SAFI data showed several changes in the

coach's behavior. Praise/reinstruct, instruction during performance, hustle behaviors, and constructive criticism/reinstruct were among the categories that had an increase. Praise, directions, and extended information all decreased following intervention. The use of questions remained constant from Phase I to Phase II; however, the type of questions asked became more task-relevant to check for understanding. The RPM of names remained the same.

When comparing practice feedback to game feedback, there was a significant increase in hustle behaviors and instruction during performance. Together, these categories totaled 69% of the coach's feedback. The comparison of Phase III to Phase IV showed a vast difference in practice and game feedback.

The findings in this investigation led to the rejection of the hypothesis that stated that supervisory feedback and self-assessment would not lead to a significant change in the coach's behavior. On the basis of this investigation, it was found that supervisory feedback can effectively change a coach's behavior.

Chapter 5

DISCUSSION OF RESULTS

Coaches exhibit various behaviors both during practices and games. Many times they are not aware of the type and frequency of these behaviors, nor if their behaviors are contributing to the environment they hoped to create for their athletes. If coaches wish to become increasingly proficient in their teaching endeavors, they must begin analyzing the actions of themselves and their athletes during practices because what goes on at practice translates into what happens during games.

This investigation was done to determine the effectiveness of SSF in changing a coach's behavior. The SAFI was used to monitor the coach's behaviors during this investigation. This chapter will discuss the results of this study and compare them to findings in other studies.

Prior to Phase II of this investigation, a coaching profile was formed using the SAFI data from Phase I. There was a high percentage of inactive time during practices due to the large amount of time spent giving information in an extended manner. There was

also little constructive criticism followed by reinstruction, and only a small amount of hustle behaviors were exhibited. After viewing her behavioral profile, the coach set the following goals: (a) use more praise followed by reinstruction, (b) increase hustle behaviors, (c) ask more questions, (d) use more constructive criticism followed by reinstruction, (e) use more criticism followed by reinstruction, and (f) give more instruction during performance. As a result of this investigation, the coach was able to reach the goals she had set prior to Phase II of the study.

The coach had set a goal of increasing praise/reinstruct and decreasing the use of praise by itself. The result was a moderate increase and decrease, respectively. Phrases such as "Good" and "Nice" soon became more specific, such as "Good cut" and "Nice save." To further the specificity, the coach soon began adding names to the end of the praise/reinstruction statement, such as "Nice draw, Heather." The coach felt that the team would benefit more if they knew what was done well and who was responsible for doing it.

Questioning athletes on concepts and task-relevant

behaviors is an important aspect of coaching. After reviewing the data from Phase I, the coach realized that the majority of the questions being asked at practice were irrelevant to the objectives of the practice. For example, the questions ranged from "Can you help get all the balls?" to "Are you o.k.?" (referring to an injury). The coach wanted to concentrate on changing the nature of the questions so they could be used to check for athletes' understanding. The changes the coach made were as simple as asking if there were any questions after a play had been explained and asking if what she had explained made sense. For example, the coach asked the goal keeper to "step to the ball in order to cut down the angle," had her look at the angle from a shooter's perspective, then asked her if that made sense to her. Questions also became task-relevant, such as "Lori, why are you cutting that way?" and "Who is picking up Michelle on that draw?" Although the amount of questions remained constant at approximately 2%, the coach did reach her goal of asking more questions that were conceptually-related to the task at hand.

The main thrust of most practices is constant

task-relevant activity by the athletes.   There are
times, though, when a coach must interrupt activity to
explain, discuss, or question her team.   The coach's
goal of increasing activity time while decreasing the
time spent giving extended information was
accomplished.   Instruction during performance increased
from 18.6% to 25.9%, and extended information decreased
from 35.9% to 26.6%.   Phrases such as "double team!"
and "set the high pick" were used to cue the athletes
while drills or plays were being run instead of
stopping play to explain a skill.

In the area of criticism, the coach wanted to
concentrate on increasing constructive criticism
followed by reinstruction while decreasing the use of
criticism by itself.   The coach made an extra effort to
pause before giving criticism, which allowed her time
to think about saying something positive first.
Constructive criticism/reinstruction showed a moderate
change, while criticism showed a slight decrease.   When
trying to decrease criticism, the coach also tried to
increase constructive criticism and criticism followed
by reinstruction.   Phrases such as "Kris, you're too
close to the crease.   Cut straight towards the feeder;

you have lots of time to shoot" and "you're moving down the field, but you're not putting your crosse out and giving a target" became more prevalent as the season progressed.

In attempting to create a more motivational environment, the coach decided that the categories of praise, praise/reinstruct, constructive criticism, and constructive criticism/reinstruct needed to be increased. These four categories combined were labeled the "motivational" group. At the same time, the coach decided that the categories of criticism and criticism/reinstruct needed to be decreased. These two categories were labeled the "criticism" group. The motivational group of behaviors increased from 19.4% to 22.8%, and the criticism group of behaviors decreased from 5.1% to 4.8%. The coach's attempt to create a more motivational environment was partially achieved. She achieved her goal of increasing her motivational behaviors, but did not decrease her criticism behaviors.

Hustle behaviors exhibited by a coach help motivate a team and increase effort. After reviewing the videotape and the data from Phase I, the coach

believed her use of hustle behaviors and the tone of

voice in which she expressed them were inadequate. She

also believed that hustle was important in practice

because it is an important component in a game. In

Phase II, the coach focused on placing more of an

emphasis on this behavior. The data show a moderate

increase in the coach's hustle behaviors. The use of

the terms "go strong" and "at speed" became more

frequent. It was also apparent by viewing the

videotape that the coach's tone of voice became more

enthusiastic and motivational as the study progressed.

Before comparing practice behavior to game

behavior, it must be noted that play during a game is

continuous, and the coach cannot interrupt it. It must

also be noted that the players don't always hear what

the coach is saying. The majority of behaviors

exhibited during games were instruction during

performance and hustle behaviors, which occurred 36%

and 33% of the time, respectively. Praise and

praise/reinstruct remained relatively constant as did

all the criticism categories. Hustle behaviors

occurred more frequently at an RPM of 1.2 during games

as compared to an RPM of 0.9 during practices. The use

of names occurred at a faster RPM during practices; the
RPM during practice was 3.0, and the RPM during games
was 2.0. The coach can use this information to create
more game-like behaviors at practices in order to
create a more realistic game environment.

Mancini et al. (1985) reported that using CAFIAS
as a feedback tool with pre-service physical education
teachers led to more successful teaching. It was found
that the teachers using CAFIAS praised and accepted
their students' ideas and efforts more often than those
not trained using CAFIAS as a feedback tool. The
teachers receiving SSF also made a greater use of
questioning and became more aware of their behaviors.
The coach in the current study realized that the type
of questions she was using were not checking for
understanding; therefore, she made an effort to always
ask questions after a play had been discussed or a
drill explained to check for comprehension.

An investigation by Barr (1978) utilized SSF using
CAFIAS to change coaches' behaviors. Several changes
in behavior and instructional patterns were found
between Phases I and III of the study. Barr concluded
that coaches trained in CAFIAS improved their

behavioral and instructional patterns and had a greater use of praise, acceptance, questioning, and information-giving between Phases I and III . Barr's study and the current study both revealed how the use of SSF as a form of intervention can change a coach's behaviors.

In a study of an NCAA Division III field hockey coach, Mancini et al. (1987) used CAFIAS to assess the impact of SSF on a coach's behavior. The study was done in four phases, with Phase II being the intervention phase. Following intervention, praise, acceptance, and athlete-initiated behavior increased and criticism decreased. The current study showed an increase in praise, hustle behaviors, and constructive criticism/reinstruction after intervention, with criticism decreasing. Mancini et al. reported that in Phase IV, conducted 1 year later, the behaviors changed in the initial phases of the study had been maintained. This suggests that SSF allows coaches to retain their behavior changes over a period of time.

Avery (1978) studied the interaction patterns of effective and less effective interscholastic coaches. Using the CPCQ, Avery found that effective coaches used

more praise and acceptance, while less effective coaches gave more criticism. Perkins (1989) studied the characteristics of winning high school basketball coaches and found that feedback, hustle, and praise were among the behaviors of these successful coaches. The results of the current study agree with those of Avery and Perkins. In studying effective and less effective environments, Hirsch (1978), Proulx (1979), and Staurowsky (1979) found that coaches in satisfied environments exhibited more praise and acceptance during practices. The coach in the current study showed an increase in praise, hustle, and feedback during performance. The coach's behavior became more similar to that of effective coaches after the intervention phase.

Claxton (1988) studied the coaching behaviors of more and less successful high school boys' tennis coaches during practice sessions. Using the Arizona State University Observation Instrument, Claxton found that the successful coaches used instruction 20.1% of the time, which was their highest behavioral category, and used questions twice as much as the less successful coaches. The coach in the current study increased

instruction during performance from 18.6% to 25.9%.

In analyzing the teaching/coaching behaviors of winning high school football coaches during practice sessions, Lacy and Darst (1985) found that praise was used twice as often as scolding, suggesting that more can be accomplished by the coach being positive rather than negative. The coach in this study increased her usage of praise followed by reinstruction following intervention. Lacy and Darst also discovered that the winning coaches used instruction more than twice as often as any other behavior throughout the study, therefore suggesting that informational feedback is a prerequisite for effective teaching. One of the coach's goals in the current study was to increase instruction during performance in order to become more effective. This goal was accomplished.

Seagrave and Ciancio (1990) analyzed the coaching behaviors of successful Pop Warner football coach Beau Kilmer and compared the results with studies done on winning coaches Frank Kush, Arizona State football coach, and John Wooden, UCLA basketball coach. Instruction was found to rank first for all three coaches. It was also noted that Kilmer motivated

through positive behaviors, while Kush and Wooden

motivated through negative behaviors. This finding was

attributed to the age level of the players. The coach

in the current study had a high percentage of

instructional behaviors and attempted to motivate her

players in a positive manner. She changed her tone of

voice to one of enthusiasm while using hustle

behaviors, and increased constructive criticism

followed by reinstruction in an effort to be more

positive.

Lacy and Goldston (1990) analyzed the behaviors of

successful male and female varsity high school girls'

basketball coaches during pre- and in-season practice

sessions. It was found that 46.6% of all behaviors was

attributed to instruction, while 18% of the behaviors

were derived from praise and hustle. Hustle behaviors

increased from 6.3% to 10.6%, praise/reinstruction

increased from 6.1% to 9.3%, and instruction during

performance increased from 18.6% to 25.9% in the

current study. This indicates that following

intervention, the coach in the current study exhibited

behaviors similar to those of successful coaches.

In an investigation by Gula (1989), the SAFI in

conjunction with the GTMI, goal setting, and videotaping assisted a soccer coach to change his behaviors to more effective and desirable ones. The soccer coach set goals that were met through intervention and self-assessment procedures. In the current study, the investigator used the SAFI to gather information about the subject. The subject then used the data for self-assessment. As in Gula's study, the coach in the current study found her behaviors became more effective after intervention.

Using the SAFI, Gordon (1991) determined the effectiveness of self-assessment as a means of changing a basketball coach's behaviors. Analysis of the data revealed that the behaviors of the coach significantly changed from Phase I to Phase III. Behaviors that increased were hustle, praise/reinstruction, name usage, criticism/reinstruction, and question usage. In the current study, the coach also was able to change her behaviors by setting specific goals along with strategies to obtain them. She increased the amount of hustle, praise/reinstruction, instruction during performance, and constructive criticism/reinstruction behaviors from Phase I to Phase III.

In studying the interactive behavior of coaches during competitive games, Lombardo (1983) discovered that coaches spent approximately half of their time observing, becoming absorbed in the action of the game and not interacting with the players. This was not the case in the current study. The coach spent over half of the time giving feedback during performance and exhibiting hustle behaviors. Wandzilak et al. (1988) found that coaches give feedback at a faster rate during games than during practice. This was not the case in the present study. In this study, the coach exhibited only hustle behaviors at faster rate.

As defined by Schmidt (1982), KR is verbal, terminal feedback about movement proficiency. According to Magill (1985), KR serves three important functions in learning: error correction, motivation, and reinforcement. Throughout the current study, the coach continued to show an increase in praise/ reinstruct, constructive criticism/reinstruct, hustle behaviors, and instruction during performance. This provided the athletes with KR and helped them to become more proficient in their skills. As instruction during performance increased and extended information

decreased, the athletes were given more practice trials which contributed to their greater success in skill performance.

Kerr (1982) defines KP as the feedback about quality or efficiency of the pattern of movement. In other words, KP deals with the biomechanical aspect of the skill. Kleinman (1983) states that "verbal information is particularly valuable during the early phases of skill acquisition, therefore, KP in the form of verbal feedback is most effective since the appropriate modifications require cognitive as well as motor adaptations" (p. 199). Phrases such as "Follow through low, Kris" and "We're getting too many stick checks; we need to change levels to avoid them" occurred more frequently in the effort to correct errors in skill. The increased KP also became more specific, such as "Lori, stay down there. You should have stayed on the double team, your girl's way out" and "Michelle, good double team. Stay on it and be more aggressive." The SAFI helped the coach to understand the types of feedback she was providing her athletes with, and at the same time, allowed her to identify the frequency in which the feedback was being

given. Siedentop (1983) explains that the more highly skilled an athlete becomes, the more he/she can benefit from highly precise feedback. Following intervention, the coach increased the specificity of her feedback statements.

Summary

This study investigated the effectiveness of supervisory feedback as a means of changing a coach's behavior. The SAFI was used to collect information on the coach's behavior. Analysis of the data revealed changes in the coach's behavior after supervisory feedback. Increases occurred in praise/reinstruct, instruction during performance, hustle behaviors, and constructive criticism/reinstruct. Decreases occurred in praise, extended information, giving directions, and criticism. The changes that occurred showed that SSF was a successful means to change a coach's behavior. In comparing practice behavior to game behavior, hustle behavior, instruction during performance, and criticism/reinstruct occurred more frequently in games than in practice.

The results of this study were compared to those of similar previous studies. Mancini et al. (1985),

using CAFIAS as a feedback tool, found that pre-service

physical education teachers made greater use of

questioning following SSF and praised and accepted

their students' ideas and efforts more often than those

not using CAFIAS as a feedback tool. Barr (1978), also

using CAFIAS, revealed how the use of SSF as a form of

intervention can change a coach's behavior. The

Mancini et al. (1987) study of an NCAA Division III

field hockey coach suggested that SSF leads to changes

in coaching behavior that are sustained over a period

of time. Avery (1978) and Perkins (1989) studied

characteristics of winning coaches and found praise,

hustle behaviors, and feedback to be prevalent among

successful coaches. Through self-assessment and

intervention, Gula (1989) and Gordon (1991) were able

to change a coach's behaviors. These findings were

similar to those in the current study.

Schmidt (1982) and Magill (1985) discuss KR as an

important function in the learning process as it

provides error correction, motivation, and

reinforcement. Kerr (1982) examines KP as an important

concept because it is concerned with the quality and

efficiency of the pattern of movement. Following

intervention, the coach in the current study exhibited more KP and KR.

SSF in conjunction with self-assessment can assist a coach to become more proficient in his/her teaching skills. Videotaping makes an important contribution to this process. As a result of the videotaping of practices, the coach became more aware of her behaviors and was able to change them to more desirable ones.

Chapter 6

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

FOR FURTHER STUDY

Summary

The purpose of this study was to determine the
effectiveness of SSF and self-assessment in changing a
coach's behavior. The subjects were one female
lacrosse coach and her female team of 20 athletes from
an NCAA Division III college in central New York.
During the 1991 season, a total of 12 practices and 4
randomly selected games were videotaped to comprise the
four phases of the study. At the conclusion of each
practice/game, the tapes were coded using the SAFI.
The videotapes were coded by the investigator.

Phase I, the pre-treatment phase, consisted of
three practices in which baseline data were collected,
and percentages and RPM for each of the behaviors of
the SAFI were calculated. Phase II, the treatment
phase, consisted of six practices. At the beginning of
this phase, the baseline data were reviewed by the
coach and the researcher to establish behavioral goals.
By viewing excerpts of the tapes and reviewing the SAFI
data, the coach determined which behaviors she wanted

to change and chose target percentages and RPM to be attained for each of those behaviors. Before the next practice and each subsequent practice during this phase, the coach set behavioral goals and identified strategies to attain them. Phase III, the post-treatment phase, consisted of three practices. Four randomly selected games were videotaped to compare Phase IV. The coach's behavior during these games was videotaped and coded using the SAFI. Pre- and post-treatment data were then compared to see if the coach met her goals of feedback improvement.

To determine the reliability of the investigator, two randomly selected practices were coded at two different sittings and subjected to the Spearman rank-order correlation. The correlations obtained were .95 and .98, which were indicative of coder reliability. The reliability of the investigator against an expert coder was also determined. One randomly selected practice from Phase I was coded by Dr. Mancini, an expert coder, and the investigator. The obtained rankings were also subjected to the Spearman rank-order correlation. A correlation of .93 was obtained, which was indicative of coder reliability.

The SAFI data showed several changes in the coach's behavior following intervention. The behaviors of praise/reinstruct, instruction during performance, hustle behaviors, and constructive criticism/reinstruct increased following SSF. The behaviors of praise, giving directions, criticism, and extended information all decreased. The use of questions remained constant from Phase I to Phase III; however, the type of questions asked became more content-oriented. Constructive criticism and criticism/reinstruct remained constant. The RPM of names remained the same.

Comparing the SAFI data from Phase I to Phase III confirmed that the coach did reach her goals of increasing praise/reinstruct, instruction during performance, hustle behaviors, and constructive criticism/ reinstruct, and decreasing criticism, extended information, and direction-giving. The findings in this investigation led to a rejection of the hypothesis that stated the SSF and self-assessment would not lead to a significant change in the coach's behavior. On the basis of this investigation, it was found that SSF and self-assessment can effectively change a coach's behavior.

The comparison of Phase III to Phase IV behaviors revealed several differences in practice and game feedback. When comparing practice feedback to game feedback, hustle behaviors and instruction during performance occurred more frequently during games.

Conclusions

The following conclusions are supported by the findings of this investigation:

1. Combining the SAFI with supervisory feedback can assist a coach in changing her behaviors to more desirable ones.

2. Comparing practice feedback to game feedback can allow the coach to create a practice environment that is more comparable to a game environment.

Recommendations for Further Study

1. Conduct a thorough investigation of a coach's game behavior in reference to win/loss situations.

2. Use SSF to change a coach's game behavior.

3. Develop a study comparing the coaching behaviors of a coach who coaches two sports to determine if the type of sport affects the coach's behavior.

Appendix A

INFORMED CONSENT FORM:

Coach Copy

1. Purpose. The purpose of this study is to code the
coach's behaviors at practice and during games in order
to identify the manner in which feedback during
instruction is given. The Self-Assessment Feedback
Instrument (SAFI) will be used in this study. The SAFI
allows the monitoring of both the type and the
frequency of feedback provided either during or
following physical performance. It is non-evaluative
and merely describes behaviors as they occur.

    Benefit. This study will allow the coach to
identify her normal behavioral patterns. She will then
be able to choose those behaviors that she would like
to improve and to identify strategies that will lead to
the desired changes in those behaviors. The SAFI is
then used to monitor the progress towards those desired
behaviors. The coach, not the researcher, will
determine which behaviors will be changed and the
strategies to accomplish these goals. This will, in
turn, assist the coach to become more effective in the
teaching/learning process.

2. <u>Method</u>. The study will consist of four phases during which the coach will be videotaped during practices and games. Phase I will consist of three practices that will be used for baseline data. Phase II will consist of six practices and will be used as the treatment phase in order to improve specified behaviors. Phase III will consist of three final practices and will follow the intervention of the treatment phase. Phase IV will consist of four randomly selected games being videotaped in order to compare practice feedback with game feedback.

3. <u>Will this hurt?</u> This study will not physically harm the subject. There may be cause for minor psychological risks if the coach becomes unsure of herself because of sharing the behavioral change data with the researcher. The coach may also be embarrassed at some behaviors she exhibited and, at some points, feel uncomfortable viewing the videotape with the researcher.

4. <u>Need more information?</u> If more information is needed concerning this study, it may be obtained by contacting Dr. Victor H. Mancini, advisor, at (607) 274-3109 or Cynthia A. Cifone, graduate student, at

(607) 257-4782.

5. <u>Withdrawal from study</u>. The subject may withdraw from the study at any time. She is also free to determine the behaviors to be improved and the strategies to accomplish the improvement.

6. <u>Will the data be maintained in confidence?</u> The data will be maintained in strict confidence. Videotaping is done solely for the purpose of this study and will be available only to Dr. Mancini, the researcher, and the coach. When the study is finished, the tapes will be erased.

7. I have read the above and I understand its content and I agree to participate in the study. I acknowledge that I am 18 years of age or older.

_____   _____

Signature   Date

Thank you.

Cynthia A. Cifone
Graduate Student, Ithaca College

Dr. Victor H. Mancini
Advisor, Ithaca College

Appendix B

INFORMED CONSENT FORM:

Athlete Copy

1. Purpose. The purpose of this study is to code the

coach's behaviors at practice and during games in order

to identify the manner in which feedback during

instruction is given. The Self-Assessment Feedback

Instrument (SAFI) will be used in this study. The SAFI

allows the monitoring of both the type and the

frequency of feedback provided either during or

following physical performance. It is non-evaluative

and merely describes behaviors as they occur.

Benefit. This study will allow the coach to

identify her normal behavioral patterns. She will then

be able to choose those behaviors that she would like

to improve, and identify strategies that will lead to

the desired changes in those behaviors.

2. Method. The study will consist of four phases

during which the coach will be videotaped during

practices and games. Following each practice, the

videotapes will be coded using the SAFI. The coach

will then identify specific strategies that she can

implement in the following practice to make practice

more effective and productive.

3. <u>Will this hurt?</u> There are no apparent physical or psychological risks involved in participating in this study. At no time will your normal actions be affected by the videotaping. The coding instrument used is non-evaluative as it simply describes the manner in which the coach gives feedback during instruction.

4. <u>Need more information?</u> If more information is needed concerning this study, it may be obtained by contacting Dr. Victor H. Mancini, advisor, at (607) 274-3109 or Cynthia A. Cifone, graduate student, at (607) 257-4782.

5. <u>Withdrawal from study.</u> Participation in this study is voluntary; your agreement to participate does not prevent you from discontinuing participation at any time.

6. <u>Will the data be maintained in confidence?</u> The data will be maintained in strict confidence. Videotaping is done solely for the purpose of this study and will be available only to Dr. Mancini, the researcher, and the coach. When the study is finished, the tapes will be erased.

7. I have read the above and I understand its content and I agree to participate in the study. I acknowledge that I am 18 years of age or older.

_____   _____
        Signature   Date

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Thank you.

Cynthia A. Cifone
Graduate Student, Ithaca College

Dr. Victor H. Mancini
Advisor, Ithaca College

Appendix C

SELF-ASSESSMENT FEEDBACK INSTRUMENT

Name_____ Practice No._____ Date_____
Length_____

<u>Directions</u>: Classes or practices are divided into 10
minute segments for ease of observation. During each
10-minute segment, place a tally next to the
appropriate behavior category each time this behavior
occurs. The use of various behaviors may be calculated
in terms of percentage of total behaviors or as rate
per minute (RPM).

CATEGORY	0-10	11-20	21-30	31-40	Total	%RPM
Praise (2)						
Praise/Reinstruct (2-5)						
Acceptance (3)			:			
Questions (4)						
Instruction During Performance (8-5, 8\-5, 9-5)						
Gives Directions (6)						
Hustle Behavior (6H)						
Criticism (7)						
Constructive Criticism (7-2)						
Criticism/ Reinstruct (7-5)						
Constructive Criticism/ Reinstruct (7-2-5)						
Extended Information (5-5)						
Names						
TOTAL						

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