

THE PARADOX OF THE FREE THROW

By

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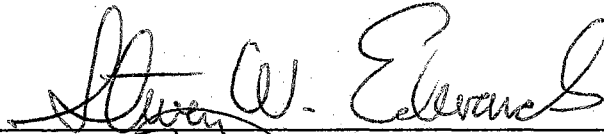
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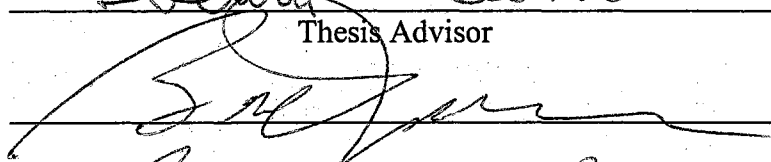
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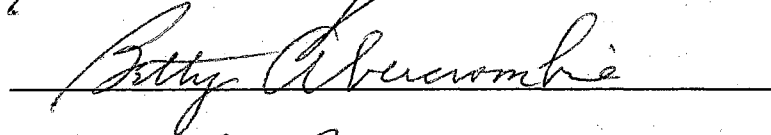
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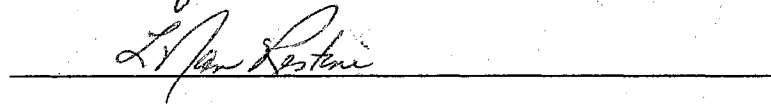
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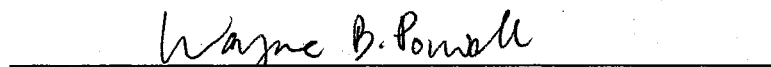


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CHAPTER I

INTRODUCTION

Tune in to ESPN or Fox Sports Southwest. Watch a college basketball game. It's hard not to be amazed at the skills demonstrated by the players in any NCAA Division I game. The players run faster, jump higher, and defend better than players of the past. Players today dribble and pass with an ability that makes one wonder if it is possible to improve in the years ahead. Further, shots from beyond the three-point line are successful with amazing regularity, even with a fierce defender in the shooter's face. However, one aspect of the game lags behind. Players cannot shoot free throws with any credible consistency (Brady, 1993). Overall, basketball players are better today than 35 years ago; they play above the rim in a way that was inconceivable then. Why is it that today's players can perform astounding athletic feats during the game, yet at the free throw line, they cannot shoot consistently? Everyone has a different idea about why, which is another way of saying that no one really knows why. The most prevalent theory is a lack of practice. It's commonly held that players do not practice free throw shooting enough. "I wonder if players are more interested in developing a finger roll rather than a shooting touch," says former Louisiana State University coach Dale Brown (Taylor, 1993, p.62). Steve Alford, who was an 89.8% free throw shooter during his career at Indiana University says, "When players practice today, everyone wants to either dunk or

shoot a three-pointer” (Taylor, 1993, p. 62). Another theory is an overemphasis on athleticism. “We always go for the athletes rather than for the shooters nowadays,” says Virginia Commonwealth University coach Sonny Smith. “We’ll take an athlete even if he can’t throw it in the ocean from the beach” (Taylor, 1993, p. 62). Another theory about poor free throw shooting is the National Collegiate Athletic Association’s (NCAA) rule limiting practice to 20 hours a week. “Coaches love to cite this one, but of course, coaches tend to believe that restrictions on practice time are responsible for the national debt” (Taylor, 1993, p. 62).

Poor free throw shooting is not just a problem at the high school and college levels. Players in the National Basketball Association (NBA) struggle with free throws and the percentage of successful baskets has declined over the last 10 years by almost four percentage points (Mosemak, 1998). In fact, there are players such as Chris Dudley, Dale Davis, and Lorenzo Williams who do not make even 50% of their free throws. Williams is the worst of the worst, shooting 38% at the free throw line in his recent six year career (Bamberger, 1998).

One would think that by now free throw shooting would have evolved into a science, and that every player good enough to play in the NBA would make eight of 10 from the line. Apparently there is not a chance that that would happen. There is no other aspect of basketball that creates as many divergent theories about how to be successful at free throw shooting. Practicing may make a player either better or worse, depending on which player you ask. Further, making a high percentage of free throws is either critical or irrelevant to a team’s success, depending on which coach you ask. Amazingly, John

Calipari, coach of the New York Nets, subscribes to the theory that too much discussion of free throws and too much free throw practice increases the pressure to perform and worsens free throw shooting. On the other hand, Larry Bird, coach of the Indiana Pacers and an 89% free throw shooter during his legendary career states, "Make more free throws. Free throws are the key to all games. Get to the line often. Make a high percentage. Win more games" (Bamberger, 1998, p. 70).

Justification

The percentage of successful free throws at all levels of basketball has continually declined for the last 19 years and has caused great frustration for players and coaches alike (Alexander, 1997). Coaches understand that the conditions under which a free throw is taken are entirely different from any other shot. "There is no hurry for fear of having the shot blocked; it is always taken from the same distance and position; there can be no yelling, arm waving or movement by the opposing players to disturb the shooter; and the shooter is not moving prior to the shot" (Booher, 1990, p. 14). So the paradox of the free throw is this—the very elements that make the shot look so easy are the same ones that make it so hard.

There has been much discussion about the paradox of the free throw (Kozar, 1994). It is a given that a free throw should be an easy shot to convert. The factors mentioned above should, in theory, make free throws easier to convert than shots from the field during the hectic pace of the game. However at that point in the game, physiologically, the player comes to a sudden stop. There is a break in the action and,

comparatively, there is ample time for the player to think before shooting the free throw. Therefore, in addition to the physiological changes that occur, it becomes a difficult psychological circumstance in which to perform.

The free throw skill is classified like the skills associated with shooting an arrow in archery, swinging a bat at a pitched ball, or putting the ball in golf. The pattern of preparing, thinking, and executing the skill never changes. The participant approaches the skill in a ritual-like fashion and attempts to achieve a high degree of consistency. These types of skills are called closed skills (Magill, 1993). However, most of the skills in basketball are just the opposite; they are open skills. For open skills, players act and react in intuitive, free-flowing form, changing the execution of a given skill like a jump shot every time it's used. The fundamental skill pattern for shooting the basketball changes only for the free throw shot. This abrupt change from one form of a skill to another form of the same skill is unique in the sports experience. Except for free throw shooting, very few other sports require that players make such sudden and frequent physical and mental shifts within the context of the execution of the same motor skill.

As a former college basketball coach, it is the author's opinion that the act of shooting a simple free throw is a disaster for most athletes in most games. The search for the reason(s) why professional, college, and high school men and women are, in general, poor free throw shooters begins with understanding the mechanics of the free throw shot itself.

There is a profound lack of uniformity in the way individual players have approached the important task of shooting a free throw. There are no consistent

mechanics, no consistent movement patterns for producing the shot, and as a result, no universally accepted methods for teaching free throw shooting. It is interesting to note that when questioned about free throw shooting most coaches have almost no well-organized idea of how to teach the skill. In fact, many coaches merely tell a player to relax at the free throw line and shoot the basketball in any method that feels comfortable. There is almost no teaching of shooting mechanics. There is almost no teaching of mental strategies to handle the pressure of that special moment in a game. As a result, free throw shooting success is declining and coaches are reluctant and/or incapable of intervening in a way that will make a difference in a player's ability to improve his/her free throw shooting style. This circumstance exists even though we know that coaches recognize the importance of mastering this shot.

When asked, coaches know that free throws are important (Tudor, 1997), they know that games are won and lost at the free throw line, but the importance of the free throw shot as an offensive tool and its impact on the game is an unknown commodity to them. They likely do not recognize that 21% of all points scored in a game are from the free throw line (Kozar, 1994). Coaches also do not likely realize that the number of games decided by free throws during a single season ranges from four to as many as one-half of all of the games. In addition, they probably don't know that 35% of the points scored during the last five minutes of a game are from free throws and that the team that wins the game will score almost half its points from free throws during that crucial game-ending period. This is consistent with the strategy often used by teams that are behind in the closing moments of close games. The trailing team fouls in order to force its

opponents to make critical free throws rather than face the possibility of having them score a two or three point field goal. This strategy tends to work even better when opponents can't hit the free throws!

With this background information, it seemed reasonable to find a method of free throw shooting that could be proven to be successful. Such a method would need to be mechanically sound, psychologically sound, and easy to teach and learn. If such a method could be found or developed, it could then be tested in a basketball practice environment using acceptable research methods.

The author heard of Dr. Tom Amberry, a retired podiatrist, and holder of the record for the most consecutive free throws. At the age of 71, Dr. Amberry made 2,750 consecutive free throws. Because of his scientific background, Dr. Amberry developed an approach to free throw shooting that is simple and easy to teach and understand, while being mechanically or fundamentally efficient and psychologically sound. The Amberry Method is simple to learn, but the greatest benefit of the method is the incorporation of focus and concentration skills into the shooting routine (Amberry, 1996). With the Amberry Method in mind, there existed a need to do an experimental study investigating the effectiveness of this method for improving free throw shooting.

Statement of the Problem

The problem of this study was to determine if the Amberry Method of free throw shooting would significantly increase free throw percentage using male and female basketball players.

Delimitations

The study was delimited by the following:

1. The subjects were a nonprobability sample of young male and female basketball players in the Oklahoma City, Oklahoma and Jackson, Mississippi areas.
2. Assessment of free throw shooting performance occurred via pretest, midtest, and posttest measurements during the first, fourth and sixth week of the practice period.
3. The pretests, midtests, and posttests were not administered to all subjects on the same day and at the same time.

Limitations

The study was limited by the following:

1. No attempt was made to control for athletic activities outside the practice periods.
2. Subjects were not randomly assigned to the experimental and control groups.
3. No attempt was made to control for the free throwing shooting skill level of the participants.

Assumptions

The following assumptions were made for this study:

1. Subjects performed maximally during the free throw shooting assessments.
2. Subjects participated fully in the teaching activities.
3. During the study, subjects did not willfully attempt to improve free throw shooting capability by practicing other free throw shooting methods.

Hypothesis

The following hypothesis will be tested at the .05 significance level:

There will be no significant differences in free throw shooting percentage scores among the pretest, midtest, and posttests for subjects in either the experimental or control groups.

Definition of Terms

Amberry Method – A seven step approach to free throw shooting that is process based rather than outcome based. The seven steps are: (1) feet square to the line, (2) bounce ball three times with the inflation hole up, (3) thumb in channel, third finger pointing at inflation hole, (4) elbow in, (5) bend the knees, (6) eyes on the target, and (7) shoot and follow through (Amberry, p. 43).

Transfer design format – a method of shooting free throws during the pretest, midtest, posttest and practice sessions to replicate the game free throw situation. In the game situation, a player who is fouled shoots one, two, or three free throws at a time. This study will use a predetermined transfer design format for each set of 10 free throws.

CHAPTER II

REVIEW OF LITERATURE

Introduction

The review of literature included studies, books, periodicals, newspaper articles, and personal interviews about free throw shooting. The review is divided into topics which cover the following areas of study: (1) historical data and trends, (2) mechanics of free throw shooting, (3) the mental aspects of free throw shooting, and (4) developing a ritual for free throw shooting.

Historical Data and Trends

Free throw shooting percentage has been on a downward trend according to The Official 1998 Men's College Basketball Records Book (Brown, 1997). In 1979, NCAA Division I men made free throws at 69.7% and that percentage has continued to decline to a low of 67.4% in 1997. Likewise, according to The Official 1998 Women's College Basketball Records Book (Hansen, 1997), NCAA Division I women made free throws at 67.3% in 1992 and the percentage has dropped to 66.4% in 1997. Even free throw percentages in the National Basketball Association, home to the world's greatest players, have declined. From 1970 to 1989, just seven NBA teams finished a season at under

70% from the foul line (Mushnick, 1997). Yet in the last three full NBA seasons alone, six teams failed to reach 70%. In fact, overall free throw percentage in the NBA has dropped from 76.4% in the 1989-90 season to 72.8% at the midpoint of of the 1997-98 season (Mosemak, 1998). It is safe to assume that the decline in free throw percentage at the professional and major college levels will also be evident in the lower divisions of college basketball and the high school level.

Many people are puzzled about this historical downward trend. If the players are more highly skilled as most observers believe, why do free throw percentages keep declining? Amberry (1996) believes that poor free throw shooting is the result of two things: poor mechanics and the inability of players to control their mental game. Jerry Tarkanian, basketball coach at Fresno State University stated simply, "I think very few coaches really know how to teach free throw shooting" (Amberry, 1996, p. 7).

University of Findlay coach Ron Niekamp's opinion is, "I'm not sure players today are willing to take the time that's needed to get the number of repetitions in the off-season to be a great free throw shooter" (Alter, 1996, p. B1). Jay Bilas, former Duke University center and television announcer says that today's players simply do not have the time and space to practice shooting. "The young basketball player just plays too much," he said. "By that, I mean he's involved in playing game-like conditions too much. They play year-round. They develop great moves and get better on defense, but they don't develop the skills you get from repetitive shooting" (Tudor, 1997, p. B1). The same thoughts are echoed by Al Menendez, an NBA scout and assistant coach. "The shooting and passing skills are getting worse every year. Kids go from camp to camp and play against other

top kids. They play a lot of games, but I don't know how many of them are spending two hours a day alone in the gym working on their shooting. They seem to live off their natural ability now" (Pluto, 1995, p. 60-61).

Mechanics of Free Throw Shooting

Most basketball players today shoot a free throw in the same way that they shoot a jump shot (Amberly, 1996). The elbow is stuck out, shoulders turned, one foot forward, and the shot begins with the ball above the head. The only difference is that most players do not jump when shooting a free throw.

Krause (1994) insists that the shooting foot should be slightly left of center pointed toward the basket, with the non-shooting foot, shoulder width pointed 15 to 18 degrees. The legs are used for power with the weight forward and a rise to the toes on release. The elbow is kept in close to the body as the arm is raised to shoot. John Wooden (1988, p. 117-118) states, "I like to have the shooter hold the ball firmly and close to the body in front of the thighs with the elbows slightly bent. A slight knee dip is taken and the ball is brought up close to the body and released up and out in front of the eyes by a quick extension of the arms and elbows and a flip of the wrists and fingers. The flip gives the ball a back spin that is necessary for a soft touch." Wooden (1988, p. 118) surprisingly says, "The feet should be spread about shoulder width with the left foot slightly forward for a right-handed shooter for better balance." Ralph Pim (1994, p. 42-43) states in Winning Basketball, "that the shooting foot is directly in line with the rim and turned 10 degrees. The non-shooting foot is placed several inches behind and 12-14

inches apart from the shooting foot and is turned at a 45 degree angle.” The ball is cocked in the shooting pocket, the knees are bent and the shot is initiated with the legs. Dennis Booher (1990) has combined the best of the three previous authors in his approach to the mechanics of free throw shooting. “To shoot a one-hand free throw, the right-handed player stands with the right foot approximately one inch behind the free throw line and the left foot approximately six to ten inches back. The feet are shoulder-width apart and the knees are slightly bent. This position is referred to as a boxer or staggered stance” (Booher, 1990, p. 15). It is interesting to note that all four authors (Krause, Wooden, Pim, and Booher) subscribe to the “pointer” method for the placement of the feet. That is, one foot is placed directly on the midpoint of the free throw line and the other foot is placed slightly behind and to the side.

Booher also points out that “The head plays an important role in correct balance, and should be kept still and in the center of the stance. The eyes should be focused on the front or back rim, but should never follow the flight of the ball” (Booher, 1990, p. 15). There is very little in the literature suggesting the placement of the hand and fingers on the ball and coordination of the legs and arms in delivering the shot. Booher states, “The ball is held in the correct shot line, a little to the right of the center of the body and below eye level. The player’s left hand is on the side of the ball, and the back of the right hand faces the body” (Booher, 1990, p. 15). Booher stresses that “The fingers of both hands should be comfortably spread and the palm should not touch the ball. Keep the right elbow close to the body, directly under the ball, and in line with the basket. The shot is initiated by a simultaneous straightening of the knees and raising of the right elbow.

As the elbow is raised, a forward push of the forearm and snap of the wrist pushes the ball toward the basket. The ball leaves from the index and forefinger of the right hand. A complete follow-through leaves the arm fully extended and the wrist bent completely so that the palm faces downward” (Booher, 1990, p. 15).

Amberry (1996) believes that specific mechanics are the key to successful free throw shooting. The blending together of a specific set of mechanics through practice will help a player become comfortable. The player will know that a fundamentally sound free throw technique leads to a successful free throw. The Amberry (1996) method of free throw shooting consists of seven steps and is discussed in detail in Appendix A.

The Mental Aspects of Free Throw Shooting

Most coaches and players know that the mental aspect of shooting free throws is important. But most have no idea how to control the mind (Amberry, 1996). It is easy for coaches and players to work on the skill mechanics like dribbling, passing and defense. One can see when something is going wrong. But when it comes to the mental aspects of the game, there is no way to look into a player’s mind to see what’s going wrong. Amberry is convinced that free throw shooting is so different from the rest of basketball shooting that it helps to consider it a “game within a game” (Amberry, 1996, p. 21). This is a phrase borrowed from golfers who use it to describe putting. A golfer may hit a shot on a hole that is 250 yards long. On the same hole s/he may be required to hit a delicate five-foot putt. The two strokes are very different and may even seem to have no connection. But successful putting is essential to low scores in golf. The same concept is

true in basketball. The free throw bears little resemblance to the ebb and flow of the rest of the game, but a player must make free throws in order to excel.

In the last few years, there has been a vast amount written about the control of the mind as related to the performance of physical skills. This includes areas such as imagery, focus, concentration, arousal regulation, and goal setting. All of these areas lead to entry into what is known as the zone of peak performance, the zone of optimal functioning, or flow (Cooper, 1998). According to Goldberg, "When athletes enter the so-called zone, they have the almost mystical experience that makes the sacrifices and long, painful hours of training all worthwhile" (Goldberg, 1998, p. 1). This state is extremely satisfying to the athlete as the muscles seem to come together as though they are programmed with fluid and powerful movements. The senses are heightened as the athlete reacts in harmony to every situation without conscious thought and effort. Unfortunately, the zone of peak performance is not easy to attain. All too often the athlete performs and the body and mind are out of synch. There is a feeling of being uncomfortable and uncoordinated. "Rather than working together, the athlete's head is getting in the way of body and muscle memory" (Goldberg, 1998, p. 3). The area of the mental game has, until the last few years, been traditionally considered off-limits by most coaches. Many coaches believe that the athlete's inner workings are beyond their expertise and do not want to cause mental problems. This hands-off approach, in many cases, sets up the athlete for failure. The cycle of failure begins after a poor performance and creates self-doubt and worry in the athlete's mind. Going into the next competition, the athlete is preoccupied with past failures and concerned that they will be repeated.

Consequently the athlete has the wrong focus of concentration and tries to over control the present performance. Because of the wrong focus and performance anxiety, the athlete fails again and the confidence is further eroded. The athlete has set in motion a negative cycle in the mind that seems to take on a life of its own.

The question for the athlete becomes one of learning how to use the mental aspects in performing a physical skill. The key for the athlete is to gain control of the mental performance as the physical performance takes place. As the athlete learns to control himself/herself and the situation, the problems of worry and performance anxiety are negated to some extent and the performance is more consistent and less stressful (Dorfman and Kuehl, 1989).

According to Murphy and White (1995), one of the key components to controlling the mental aspects is learning to perform in the present moment. The athlete cannot be worrying about the past or the future or the coach, the crowd, or some other event. The response must be in the here and now. It is only when the focus is in the here and now that the athlete is able to automatically respond to the cues necessary for peak performance. When an athlete is immersed in the present, s/he is totally unaware of distractions and loses himself/herself in the process. The key is to be performing in the moment, realizing it is moving and not static.

The athlete learns that concentration has two dimensions: time and place (Goldberg, 1998). The time dimension refers to the player's mental time zone. When s/he practices or competes, s/he soon learns that s/he is in one of three time zones: the past, present, or future. When an athlete is in the past, the mind is behind the body. The

body is performing now, but the mind is dwelling on something that occurred previously. The focus might be on a bad call, a missed free throw, or the hostile crowd. If the athlete is mentally in the future, the mind is ahead of the body as s/he performs. S/he is thinking that unless s/he sinks both of the free throws, his/her team will lose and s/he will be blamed by the coach, his/her teammates, and the crowd. When the athlete performs in the present, the mind and body are in sync and s/he is performing in the now. The focus and concentration is locked onto what s/he is doing at that moment, so that instinctively s/he acts and reacts.

The player must learn how to consistently stay in the present during practice and performance. Mistakes in practice and performance usually occur because the athlete is in the wrong mental time zone. It is important that coaches and athletes understand the critical principle of peak performance: focus on the process, not the outcome (Goldberg, 1998, p. 48). Unfortunately many coaches fall into the habit of distracting their athletes with outcome thoughts about must-win situations. UCLA coaching legend John Wooden always coached the process and not the outcome. Wooden never focused his players on winning, which is an uncontrollable variable. Instead, he coached his players to give a full effort while executing the fundamentals of basketball. By doing this, he narrowed his players' concentration to the process of the game. Amberry (1996) writes about a conversation with Dr. James Jen Kin, a martial arts expert and sport psychiatrist. Dr. Jen Kin noted that the athlete under pressure becomes fixated on results. The basketball player at the free throw line, according to Dr. Jen Kin, might have the following mind conversation. "I've got to make this basket! If I don't we'll lose the game. If I lose this

game we'll blow the championship. If we lose the championship..." (Amberry, 1996, p. 56). Instead Dr. Jen Kin said that the player in pressure-packed situations should be thinking, "Okay, start the process. Remember all the steps. Do them all just right and the ball will go in the basket" (Amberry, 1996, p. 57). When an athlete focuses on the process, Dr. Jen Kin said, the result will take care of itself. An athlete could say to himself/herself, "I'm going to do everything just right and not worry about the result" (Amberry, 1996, p. 57).

The second dimension of concentration is place (Goldberg, 1998). This refers to where the athlete is mentally as s/he performs. Not only must the player be focused on the right time, but s/he must also be in the right place and s/he is performing in the now. If s/he is preoccupied with thoughts such as the ability of his/her opponents, the after-game dance, or the criticism of the coach, the athlete is in the wrong mental place. The athlete who has trouble controlling his/her thoughts before or during performance invariably runs into repeated problems staying in the present.

Amberry (1996) believes that the difficulty of staying in the right mental place is brought about because the mind becomes cluttered. The mind is capable of many thoughts in rapid succession, but only one thought in the conscious mind at a time. If that thought is negative or related to an uncontrollable event, the athlete is setting himself/herself up for failure on the performance task. Remaining focused in the present means keeping the mind positively active concerning the performance that is about to occur and dealing with the things that the athlete can control.

The use of mental imagery before and during performance has been used by many

sports stars such as golfing legend Jack Nicklaus and the greatest receiver in National Football League history, Jerry Rice (Silva and Weinberg, 1982). Many books and articles on the use of mental imagery have been published and the study of imagery and mental practice in sports has become so well accepted that it is regarded as a basic area of study in the field of sport psychology.

The term “imagery” has been defined as internal pictures, internal feel of the muscle movement, and internal sounds that are consistent with the performance results that the athlete desires (Goldberg, 1998). When this mental “imagery” is done deliberately, it is known as mental rehearsal or visualization. Many athletes, today, set aside practice time to mentally preview exactly how they would like to perform.

Research suggests, according to Suinn (1994), that experienced athletes profit more from mental practice than novices, that simple motor tasks (closed skills) may be improved more than complex tasks and that distributing mental practice is more useful than massed practice. This is probably true because the novice has not mastered the fundamentals of the skill and cannot vividly imagine the skill in his/her mind.

Simple motor tasks or closed skills are easier to imagine than open skills. Open skills are those in which the environment is constantly changing and the performer cannot effectively plan a response. It is difficult for a football player to program exactly what s/he is going to do on a punt return. While s/he may start the return to the left sideline, once the play unfolds it is hard to predict exactly what may happen. It is difficult to plan for the unknown; thus, open skills do not seem to be as effective in mental rehearsals. On the other hand, closed skills are characterized by being self-paced,

predictable, requiring concentration, unchanging environment, and having a repetitious behavior for a given moment that replicates a perfected standard (Wrisberg and Anshel, 1989). A free throw is either made or missed. There is no other option.

For closed skills, there must be some basic sense of the task movements before mental practice can be effective. Until a reasonably accurate grasp of the fundamental movements is available, improvement in performance should not be expected (McLean and Richardson, 1994). In a study by Woolfolk, Parrish, and Murphy (1985), it was reported that negative mental practice of golf putting (incorrect fundamentals and missing on purpose) decreased actual performance when compared with a matched group who mentally practiced the correct fundamentals and accurate putting. Reports by subjects in the study, suggest the difference in the outcomes between the two groups is probably due to effects on the subjects' motivational system. Positive outcomes appear to be associated with increased self-confidence; the opposite occurred for negative outcomes.

It has been generally assumed that imagery practice is of less benefit to the novice than to the performer with established fundamental skills. Relatively few studies have tested this assumption. For example, Clark (1960) compared the effects of mental practice on free throw accuracy of three groups (high school varsity, junior varsity, and novice) and concluded that mental practice was least effective for the novice group.

One of the problems with many mental practice studies concerns the gathering of data in practice sessions only. To make the assumption that mental practice improves performance, data must be gathered in the actual competitive settings. Suinn (1994) points out that skill acquisition involves not only the strengthening of accurate practice

responses, but also the transfer of accurate responses in competitive settings.

In a study focused on transfer of skills, Meyers, Schleser, and Okwumabua (1982) investigated the effect of a cognitive behavioral intervention (a combination of imagery, coping strategies, and self instruction) on free throw and field goal accuracy of two female college basketball players. They used a single subject, multiple baseline design with treatment reversal for one subject. Both subjects were experienced college team athletes; one player was a center and the other a forward.

Baseline recording with the center revealed a 71.1 percent free throw accuracy during practice, with a 41.3 percent accuracy rate during game performance. This pretest performance clearly indicated that the free throw skill was well established, but was not being transferred to the game setting. After intervention, the practice performance stayed much the same (75.4), but the game performance increased to 54.8 percent accuracy. When the subject was instructed to cease using the mental practice techniques, the game performance dropped to 28.6 percent accuracy, while the practice rate remained constant at 76.9 percent.

The single subject design makes it difficult to generalize from these results. However the study included several findings of interest. It is of note that the practice free throw accuracy of the center did not improve with intervention. It is suggested that this may indicate that the imagery based strategies “do not directly improve physical skills but may facilitate physical performance” (Meyers et al., 1982, p. 347). It is argued that this performance improvement is more likely a result of the athlete coping better with the demands of the game and suggested that improvement in coping is a result of better

arousal control, positive expectations of success, and an increase in self-efficacy.

Several other studies have examined the effect of imagery rehearsal on free throw accuracy. Kolonay (1977) assigned college basketball players to four groups: a no-treatment control group; relaxation only; imagery only; and visuo-motor behavioral rehearsal. Visuo-motor behavioral rehearsal (VMBR) was developed by Suinn and combines relaxation with imagery rehearsal. The seven percent improvement in accuracy by the VMBR group was not only statistically significant, but it was claimed that this level of improvement meant the difference between winning and losing in eight games during the season. The relaxation only and imagery only groups did not change at all.

This finding was not replicated by Lane (1980). His VMBR group showed more improvement in free throw accuracy than no-treatment controls, but the difference was not significant. Lane noted that the difference between the groups was more apparent in away games than home games. It is assumed that away games occur in a more demanding environment (unfamiliar surroundings, hostile crowd, and travel). This finding suggests that in some cases, mental practice may work by enhancing the athlete's ability to cope with the demands of the competitive environment, rather than via direct skill enhancement.

It may be that for the elite athlete with highly established skills, the positive effect of mental practice may have to do with maximizing the transfer of skills from practice to performance. Transferring the accuracy of free throw shooting from practice to the game setting appears to be a major problem at all levels of basketball. However, Feltz and Landers (1983) point out it is simplistic to view mental practice as operating at only one

stage of learning. For the novice athlete, mental practice may enhance skill by reinforcement of a template of the task. However, it is important to note that this template must be initially established by some actual experience with the task. At higher skill levels, mental practice may still serve to enhance the efficiency of the athlete by strengthening a cognitive template, but might also work by maximizing the cognitive focus of the athlete by improving concentration and reducing skill-disruptive levels of arousal. At elite levels of performance, skill level may well be close to a ceiling, thus leaving little room for actual skill enhancement. For these top level performers the value of mental practice may be mostly in ensuring transfer of skill from practice to performance; at this stage the cognitive focusing of imagery may be most important.

Mental practice has been said to influence physical performance through one of three mediating systems. They are known as the motivational, cognitive, and learning systems. It is helpful to look at the way mental practice affects each system.

The physical performance of a particular skill may be improved when mental practice is employed to achieve an optimum level of motivation. Sometimes motivation may need to be increased or sometimes decreased to achieve an optimum level, but it can be demonstrated that it is this system, rather than any other, that must be examined. Silva (1982) studied a junior college basketball player who had achieved a high level of accuracy in making free throws in non-competitive situations. His problem was a high level of accuracy in competitive settings. In discussing the problem with his coach, it became evident that he felt over-aroused and anxious under the stress of competitive play and had lost his confidence. Confidence was restored by a mental practice program

designed to reduce performance anxiety and build confidence. Under non-competitive conditions, he was instructed to visualize himself going to the free throw under must-make circumstances. Then the “shot was rehearsed repeatedly for various real game situations; such as, a coach taking time-outs to freeze the shooting player or opponents distracting the subject with arm and hand movements or verbalizations” (Silva, 1982, p. 459). He was also asked to imagine “himself missing an important shot, but coming back and making the second shot” (Silva, 1982, p. 459) to further reinforce coping capacity under pressure. For mental practice at home and immediately prior to taking a free throw in a competitive game, the words “relax” and “practice” were paired with an image of himself taking three dribbles, focusing, and then calmly shooting the basket. As a result of these mental practice exercises, he improved his free throw shooting accuracy from an average of 54 percent in the first seven games of the season to 75 percent in the final sixteen games.

Given that the skill level of this player was high to begin with, but that performance under stressful conditions was unrepresentative of what had been learned, the problem is to account for the improvement that followed mental practice. From the player’s testimony, it appears that he had been over-aroused when shooting free throws prior to seeking assistance. Relaxation followed by mental practice served to reduce the arousal to near optimum levels, leading to more successful transfer of his skills to the competitive game setting.

The ability to regulate one’s level of emotional arousal is a key to performance accuracy when involved in a physical skill such as shooting a free throw. Emotional

arousal is defined as a general physiological and psychological activation of the person that varies on a continuum from deep sleep to intense excitement (Gould and Krane, 1992). From a practical perspective, arousal refers to how intense, charged-up, nervous, and emotionally activated an athlete is before or during a performance.

It is important to understand that arousal has both physiological and psychological components. It can best be thought of as a complex blend or mixture of increased physiological and psychological states and not as a single state. Viewing emotional arousal as being multidimensional (physiological and psychological components) has direct implications for arousal regulation.

Amberly (1996) believes that lack of emotional control (over-arousal) is a major deterrent to accuracy in free throw shooting. The inability of the athlete to focus and concentrate causes him/her to think about the negative things involved in shooting a free throw (the agony of a miss, the groan of the crowd, the look of dismay on the faces of teammates, and the cheers of the opposing team). The feelings of negativity cause stress and the stress creates over-arousal which leads to performance disruptions (Goldberg, 1998). The inability of the athlete to stay focused leads to the problem of nervousness beyond control. This tension leads to feelings of "not messing up again" or "got tos" (Goldberg, 1998, p. 242). The physical and mental tension ties the muscles in knots and makes optimal performance impossible.

Every athlete who has ever choked knows the devastating power of performance anxiety. Uncontrolled anxiety can keep the athlete sleepless the night before a game, steal his/her confidence, and sap his/her energy. The result is a nightmare performance

that debilitates the athlete and disrupts the natural flow of the game.

The athlete who learns to control performance anxiety plays with an inner knowledge that no matter how stressful the competition gets, s/he is always under control and able to meet the demands of the game. The athlete who has conquered performance anxiety is the personification of the eye of a hurricane, a totally calm feeling in the center of a storm. S/he understands that performance-disrupting stress stems from concentrating on uncontrollables and the key to his/her performance success is focusing only on things that s/he can control.

Developing a Ritual for Free Throw Shooting

Making a free throw is a closed skill. This means that the performance try and the movement prior to the try should be done in the same way every time. Basketball players in almost all free throw situations have some type of ritual or routine prior to the release of the ball. Unfortunately, there are almost as many different rituals as there are players and many players are not consistent in the routine they use prior to the shot (Amberly, 1996). One time the player will bounce the ball two times prior to the shot and the next time s/he may bounce it four times. This lack of consistency allows the mind to wander and possibly interferes with the accuracy of the shot. According to the Tampa Tribune (1998), the free throw rituals are not routine, especially in the NBA. They range from the mysterious to the mundane, from symbolic to simple. For example, Steve Smith of the Atlanta Hawks touches a tattoo on his right arm. Indiana Pacers point guard Mark Jackson, like his position indicates, points at the rim. Utah's Jeff Hornacek wipes his

right temple three times. The less eccentric rituals involve a set number of bounces and spins. Looking at the rim, wiping sweat off the forehead and pulling up the shorts are optional.

Jazz forward Karl Malone goes through one of the league's more intriguing and lengthy rituals. He uses every bit of the ten seconds allowed before shooting. With his eyes glued to the floor, he takes six bounces, two spins, bends his knees and pauses. With the ball clutched in his hands, he whispers to himself before looking at the rim and shooting. But as loose as his lips are on the line, they are as tight when it comes to discussing his routine. Not even Malone's teammates know what he says to himself.

Some of the league's best foul shooters have the most rudimentary pre-shot routines. For Indiana's Reggie Miller, who has an 87.8 career percentage and led the NBA in 1990-91 with 91.8 percent, it's just six bounces. Orlando guard Mark Price does even less than Miller. For the all-time NBA career percentage leader at 90.7, the routine is more mental. He dribbles three times, takes a deep breath and shoots. Concentration is his key.

While routines vary in style, the substance is similar. Players and coaches agree repeating the routine is important. Malone's conversation with himself and the bounces and spins are scripted. Malone's teammate, Jeff Hornacek, an 87 percent career free throw shooter states that any good free throw shooter does the same thing every time. Whether it's bouncing the ball 10 times or no dribble at all, the good shooters agree that the routine should be the same every single time. They all try to do something at the free throw line that makes them feel comfortable.

Feeling comfortable at the line is harder than it looks, just as shooting a free throw is harder than it looks. After sprinting up and down the basketball court and being knocked to the floor by a 7 foot, 300 pound center, the free throw task is daunting. Fatigue and environment are two great hindrances and it's at this point that mental strength, accomplished through a familiar routine, helps counterbalance the physical obstacles of the hostile environment.

Amberly (1996) uses the ritual as a method to achieve a quiet state of mind at the free throw line. He describes this ritual as an action, word, or phrase that is repeated over and over for reassurance. The actions, words, or phrases keep the mind busy and this ritual becomes that one conscious thought the mind is capable of during that moment. This state allows the natural self to function more freely. Nelson and Bacon (1998) write of an interview with Lawrence Shainberg, a champion archer. He addressed the manner in which champion archers are able to free themselves from volition and thought and, like the gunslinger of old, from consciousness itself when they release their arrows. Said Shainberg, "The great enemy for an archer, as perhaps for any athlete, is conscious intervention. The conscious mind always wants to help you, but usually it messes you up. But you can't set it aside, you've got to get it involved. The thing you have to do is anchor it in technique. Then your sub-conscious mind, working with your motor memory, will take over the shooting for you" (Nelson and Bacon, 1998, p. 39). Lanny Bassham, a member of the United States Olympic rifle team, states, "I worked very hard, but I wasn't prepared mentally. I decided that I wanted to be an athlete who was so mentally prepared that it separated a champion from the athletes who just performed. It's

like making steel. You put it in a fire, heat it up and see what happens. Some of the steel will break. Some of it will get stronger” (Bacon and Nelson, 1998, p. 69-70). The Bassham model is built around a belief that the conscious mind is incapable of high levels of performance. Bassham said, “It is the great limiter of human performance. If we could bypass the negativity and limitations of the conscious mind, we could unlock huge abilities, physical and otherwise, in individuals. I have no doubt that the power of the subconscious mind is hard to even approach” (Nelson and Bacon, 1998, p. 70).

Amberry (1997) spent many hours developing his method of free throw shooting. He perfected the mechanics of the free throw rather quickly and then began to study the mental approach to accuracy. In his readings and interviews with sport psychologists, athletes, and medical doctors, he soon found that the mental approach was the key to perfection. He learned that he must empty his mind of conscious thoughts and repeat the same ritual on every performance to achieve success. By developing a ritual, Amberry gave the conscious mind a task to perform as he repeated the seven steps he developed on every free throw. The ultimate purpose of the seven steps repeated to himself as he shot a free throw was to keep the conscious mind busy, while his subconscious mind completed the task. Amberry (1997) found the key to starting his ritual was defining a spot on every basketball that was consistent. He learned that every basketball has the inflation hole in the same spot and that the act of looking at the inflation hole held his attention for the length of time it took to shoot a free throw. He describes this focus on the inflation hole as the beginning of the ritual that frees the muscle memory, lets the body (sub-conscious) take over and allows the ball to go in the

basket.

Goldberg (1998) points out that an athlete must learn to control the focus of his/her eyes and ears before performance. This control of focus helps the performer develop specific points of attention or a ritual. The basketball player is most vulnerable at the free throw line in the moments after a foul and the natural stoppage of the flow of the game. The tendency for this performance-disrupting loss of focus is caused because there is too much time to think. If the athlete does not develop a discipline of a ritual, the eyes, ears, and mind wander and performance usually suffers.

To systematically control the mind, eyes, and ears and stay in the here and now, it is important for the basketball player to develop a pre-performance ritual or routine. The purpose of the routine is to help the performer narrow his/her concentration and prepare for successful execution. It can involve saying certain things to yourself, a quick mental rehearsal, repeating specific behaviors, or some combination of all of these. A good routine or ritual keeps the performer centered and focused in the here and now of the performance just before it begins. It keeps the athlete's mind off all the potential distractions and stressors of the competitive environment. The ritual provides a systematic way for the performer to gradually narrow his/her focus, so that when the performance begins, s/he has good concentration. The narrowing process is accomplished through paying attention to mental reminders prior to the performance.

For example, Goldberg (1998) outlines the thought process of the basketball player as s/he is fouled and has the opportunity to shoot two important free throws. To add to the drama of the event, the opposing team's coach calls a timeout to give the player some

extra time to contemplate all the potential consequences of failure. After the timeout, s/he has approximately 30 seconds before stepping to the free throw line and facing all the possible distractions. This is the moment that control of mind, eyes, and ears is of utmost importance. However, the thought process ranges from fame and fortune if s/he makes them both to the missed free throw in the last game that led to losing in overtime. At this time, it is important that the player has developed a pre-shot routine that leads to a familiar feeling of confidence.

Each step of the pre-shot routine has a purpose. It is to capture the attention and keep the distractions from entering the mind. The more familiar the routine becomes, the easier it is to narrow the focus and empty the mind until the free throw is shot. Such a pre-performance ritual is effective only if the player stays in the here and now as s/he prepares to shoot. In other words, s/he must do what s/he is doing mentally, while s/he is doing it physically. A routine will not narrow the focus if the mind is not on what it is doing.

It is important to keep the ritual short and simple. It must involve things that are easy to do and not depend on outside elements that the athlete cannot control. It is important to remember that the ritual's purpose is for the player to stay calm, focused, and in control, rather than feel out of control.

Greider (1991) feels that the best pre-shot ritual is the one that works best for the shooter; however, all rituals should include certain basic components. The best shooters will use these components prior to shooting the ball:

1. Say a positive phrase or think a positive thought. A good free throw shooter

says something positive to himself/herself each time s/he prepares to shoot.

2. Imagine the ball going in the basket before the shot. It is simple to imagine a ball spinning in the air and going into the basket.

3. The feet should be positioned the same way each time as the player steps to the free throw line to shoot the ball.

4. The shot should be physically rehearsed before the shot. Former Boston Celtic Cedric Maxwell was known for this. Larry Bird also rehearsed his shot. It is interesting to note that a baseball player or a golfer always takes a few practice swings prior to hitting the ball. This rehearsal of the shot can be done before the referee hands the ball to the shooter.

5. Bend or bounce the knees to settle in and get comfortable. The bending provides the power for the shot.

6. Dribble the ball a set number of times. The dribbles should be short and simple and never more than three times. The ball should not be dribbled in elaborate ways.

7. A breathing sequence, including at least one deep breath, will help the shooter relax. When the ball is shot, it is best for the shooter to hold his/her breath.

8. A visual sequence determines precisely where the shooter looks from the time the referee hands him/her the ball until it goes through the net. By precisely having focus points during the ritual, distractions are minimized.

9. Block out external noises by thinking positively and concentrating. This helps the shooter to have confidence and calm down. Develop a verbal sequence that is synchronized with the rhythm of the ritual. Words such as "bounce", "bounce", "sight",

“swish” can be coordinated with the specific parts of the ritual. This gives a sense of rhythm and helps block out external noises.

10. The ball should be held the same way every time. Most great shooters hold the ball a very specific way after their dribble.

11. The pre-release position should remain the same every time, including the position of the elbow and hand.

12. The follow-through of the dominant hand or shooting hand should be held in position for a second or two after releasing the ball.

13. Physical sensations that correspond with successful shots help to develop an effective, grooved shot that can be executed under pressure. These sensations include a feeling of rhythm, a general feeling of the ball rolling off the fingertips, and the feeling in the hand and wrist after the ball is released. This feeling is ingrained and offers feedback as to when the shot is made or missed.

A listing of components of the ritual makes it seem more complicated than it really is. With practice, however, the ritual becomes a simple habit and the shot seems to happen automatically. The shooter must remember that a good ritual demands his/her attention and takes the mind off the external distractions and negative thinking that cause the shot to miss.

The rhythm and consistency of the ritual in a closed skill performance is an important consideration. According to Southard and Miracle (1993), nerve tissues not spontaneously rhythmic respond rhythmically when exposed to a consistent stimulus. Such nervous rhythms cannot only synchronize with each other, but also are capable of

reproducing activations in the same order as that in which they were originally aroused by corresponding stimuli. It is not surprising that rhythm and timing are important to the learning of motor skills and the performance of skilled activity.

Many performers develop consistent patterns of performance with subconscious, persistent, rhythmic patterns. In fact, it seems that getting the motor system in rhythm is an important part of skilled performance. Observation indicates that rhythmic behaviors prior to performance are common in closed skills and there is evidence that these rhythmic behaviors are auto-communicative rituals. That is, the ritual is used to coordinate systems for performance. In addition, the preservation of the rhythmicity of such movements appears more important to free throw success than the actual behaviors themselves.

Amberry (1996) concluded that certain behaviors in the ritual interfere with the rhythmicity of the ritual. One such behavior is staring at the basket for 3 or 4 seconds during the ritual. This unusual focus on the basket upsets the timing of the ritual and leads to a condition called "focal dystonia" (Amberry, 1996, p. 67). Focal dystonia happens when the shooter stares at the basket too long and the image fades or becomes hazy. This is the last thing the shooter wants to happen to the target. The eye is like the lens of a camera and the first image of the target is the most vivid.

Police officers are given handgun training by flashing a sudden target in front of them. They don't have time to raise their weapon, sight along the barrel and fire. The aiming has to be instinct. The same principle applies to shooting a free throw. Staring at the rim upsets the rhythm of the shot. The concept at work as the shooter prepares for the

shot is to bypass the thinking process of the mind. S/he does not want the rational qualities of the mind to enter into the shot.

Many free throw shooters use an elaborate system of bounces or dribbles as they move through the pre-shot ritual. Amberry (1996) developed the concept of three slow bounces (not dribbles) as one of the 7 steps of his ritual. The slow bounces begin to relax the shooter and allow his/her mind to focus on the remainder of the ritual. Elaborate bounces and dribbles tend to become a show of style over substance and a routine of looking good rather than accurately shooting the ball into the basket. Some players spin the ball backwards in the shooting hand, which leads to a condition known as transitory paresthesia, which is a temporary numbing of the fingertips from the spinning basketball. In this case, the shooter is shooting as if a temporary anesthetic has been applied to the fingertips and his ritual has become a detriment. For more information about the Amberry method of free throw shooting, refer to Appendix A.

CHAPTER III

METHODS AND PROCEDURES

Introduction

This chapter presents three sections representing the methods and procedures which were employed in this study. The first two sections contain a description of subject selection and the operational procedures used to conduct the experiment. The remaining section describes the research design and statistical analysis.

The problem of this study was to determine if the Amberry Method of free throw shooting would significantly increase free throw percentage using male and female basketball players.

Preliminary Procedures

Subject Selection

Permission was obtained from the Oklahoma State University Institutional Review Board to conduct research on human subjects. The subjects for this study were selected from a group of young male and female basketball players in the Oklahoma City, Oklahoma and Jackson, Mississippi areas. There were more male than female subjects available for the study because softball for girls is played in the fall in Oklahoma and

Mississippi, so the number of female basketball players was limited. Twenty subjects were selected for the experimental group including 18 male subjects and two female subjects. An additional nine male and one female subjects were selected for the control group. All subjects were experienced basketball players with prior team membership. Informed consent was obtained from all subjects participating in the study.

The following details were arranged prior to the to the first meeting with the subjects.

1. Permission was granted to use the gymnasiums at Bethany First Church of the Nazarene, Southern Nazarene University, and Jackson Prep High School.
2. A manual was developed for the experimental and control groups to use in each practice session to record scores in the proper transfer design format (See Appendix B).
3. Amberry's book Free Throw and video Make Every Free Throw were obtained for each member of the experimental group.

Operational Procedures

Pretest Procedures

The 20 subjects in the experimental group met together to sign the informed consent form. At the meeting each subject shot 100 pretest free throws. The number of successful free throws out of 100 for each subject determined the percentage for the pretest. The subjects shot the free throws using any form, style or ritual. However, the subjects were asked to shoot in a predetermined transfer design format. The

predetermined transfer design format was used to more closely replicate the game free throw situation. A player who is fouled in a game situation shoots one, two, or three free throws. Therefore, free throw practice should follow a design format to transfer learning to the game situation. The transfer design format for this study was based on 10 free throws in a set. Each set was divided into five segments of one, two, or three free throws. The subject stepped away from the free throw line after each segment to replicate the game situation. Five segments completed a set of 10 free throws and the subject began the new set with another predetermined transfer design format. The number of free throws in a segment rotated so that the subject shot a different number of free throw(s) before stepping away from the free throw line. Table I (p. 38) displays a transfer design format for shooting 100 free throws in practice.

The 10 subjects in the control group met together to sign the informed consent form. At the meeting, each subject shot 100 free throws. The subjects shot the free throws using any form, style or ritual. However, the subjects were asked to shoot in a transfer design format. A predetermined transfer design format was used to more closely replicate the game free throw situation. The transfer design format followed the same shooting procedure as for the experimental group. The number of successful free throws out of 100 for each subject determined the percentage for the pretest. The subjects were asked to continue practicing free throws using their normal style and their normal practice routine. They were asked to shoot 100 free throws during each practice for a total of 30 practice sessions using a transfer design format. Each subject in the control group was asked to shoot 100 free throws for the midtest during the fourth week

of the study and another 100 free throws for the posttest in the sixth week. Each subject in the control group was monitored by the author or his agent during the midtest and posttest. Table II (p.39) displays the measurement points for the pretest, midtest and posttest.

TABLE I
*TRANSFER DESIGN FORMAT
100 FREE THROWS

SET #	SEGMENT #1	SEGMENT #2	SEGMENT #3	SEGMENT #4	SEGMENT #5
#1	2	3	2	1	2
#2	3	2	1	2	2
#3	2	1	2	2	3
#4	1	2	2	3	2
#5	2	2	3	2	1
#6	2	3	2	1	2
#7	3	2	1	2	2
#8	2	1	2	2	3
#9	1	2	2	3	2
#10	2	2	3	2	1

*Each Set consists of 10 free throws and each Segment consists of a predetermined number of free throws, either 1, 2, or 3.

Training

The subjects in the experimental group were taught the Amberry method in three

ways. They were given the book Free Throw written by Dr. Tom Amberry. The subjects were asked to read and study the book. The subjects were also given the Amberry Make Every Free Throw video. Finally, the experimental group observed a one hour demonstration about the Amberry method from the author of the study. Each subject in the experimental group was asked to shoot 3000 free throws during the study. This was divided into 30 sessions of 100 free throws. Each practice session used a predetermined transfer design format to more closely replicate the game free throw situation. Each subject was given a free throw scoring manual with a score sheet and the transfer design format for that session (refer to Appendix B). The subjects were asked to shoot 500 free throws each week. The length of the study was six weeks. The author of the study or one of his agents observed all free throw sessions by each subject of the experimental group. Table III (p. 40) displays the training schedule for the experimental group.

TABLE II

MEASUREMENT POINTS FOR PRETEST, MIDTEST, AND POSTTEST

MEASUREMENT	PRACTICE SESSION #	MEASUREMENT	PRACTICE SESSION #	MEASUREMENT
PRETEST	1-14	MIDTEST SESSION #15	16-29	POSTTEST SESSION #30

Midtest Procedures

Each subject in the experimental group shot free throws for 30 sessions. Each session consisted of 100 free throws. A transfer design format was used to more closely replicate the game free throw situation. The score sheet for each session had a

predetermined transfer design format. The number of successful free throws out of 100 scored during the 15th session for each subject determined the percentage for the midtest. The midtest score was important as it showed the learning curve for the Amberry method. The midtest took place during the fourth week of free throw shooting.

Each subject in the control group shot 100 free throws during the fourth week of the study. The only requirement for each subject was the use of a score sheet with a predetermined transfer design format. The number of successful free throws out of 100 for each subject determined the percentage for the midtest. The control group was asked to continue to follow their normal procedure and normal routine for practicing free throws. The subjects were asked to shoot at least 100 free throws at a practice session .

TABLE III

AMBERRY TRAINING SCHEDULE FOR EXPERIMENTAL GROUP

MEASUREMENT	14 PRACTICE SESSIONS OF 100 FREE THROWS	MEASUREMENT	14 PRACTICE SESSIONS OF 100 FREE THROWS	MEASUREMENT
PRETEST 100 FREE THROWS	1 - 2 - 3 - 4 - 5 - 6 - 7 8 - 9 - 10 - 11 - 12 - 13 - 14	MIDTEST 100 FREE THROWS SESSION 15	16 - 17 - 18 - 19 - 20 - 21 - 22 - 23 - 24 - 25 - 26 - 27 - 28 - 29	POSTTEST 100 FREE THROWS SESSION 30

Posttest Procedures

The posttest was administered during the sixth week of the study. Subjects in the experimental group had completed 29 practice sessions of 100 free throws. The 30th session was used as the posttest. A predetermined transfer design format was used on the score sheet. The number of successful free throws out of 100 scored during the 30th

session for each subject determined the percentage for the posttest.

Each subject in the control group shot 100 free throws during the sixth week of the study. The only requirement for each subject was the use of a score sheet with a predetermined transfer design format. The number of successful free throws out of 100 for each subject determined the percentage for the posttest.

Research Design and Statistical Analysis

The research design was a nonequivalent experimental group/control group design with pretest, midtest, and posttest assessments. The data were prepared for analysis using a personal computer and the Statistical Package for the Social Sciences (SPSS) Graduate Pack. Various SPSS features were used for the statistical procedures. Descriptive data for free throw shooting representing critical measurement points was displayed in tabular form. A 2 X 3 repeated measures analysis of variance (ANOVA) was used for the inferential analysis. This included a grouping factor at two levels (experimental and control groups) and a trial factor at three levels (pretest, midtest, and posttest). The dependent variable was free throw percentage and the hypothesis was tested at the .05 significance level. Any significant differences for the trial factor and the interaction effect were investigated using the Newman-Keuls post hoc test.

CHAPTER IV

RESULTS AND DISCUSSION

Introduction

The problem of this study was to determine if the Amberry Method of free throw shooting would significantly increase free throw percentage using male and female basketball players. The Amberry Method of free throw shooting was used by the experimental group in a 30 practice session period of six weeks with the 20 subjects shooting 3000 free throws each. A nonequivalent control group completed the same procedures.

Results

The normative data for the study is reported in Table IV (p. 43). The table includes the mean and standard deviation for each group in each measurement period as well as the mean and standard deviation for the three measurement periods. Also, the mean and standard deviation was calculated for the entire group (experimental and control) for each measurement period.

A 2 X 3 repeated measures analysis of variance (group X time) was used for the inferential analysis. This included a grouping factor at two levels (experimental and

control groups) and a trial factor at three levels (pretest, midtest, and posttest). The dependent variable was free throw percentage.

TABLE IV
PRETEST, MIDTEST, AND POSTTEST
MEANS AND STANDARD DEVIATIONS
FOR EXPERIMENTAL AND CONTROL GROUPS

	Pretest	Midtest	Posttest	Marginal Means
Exp. (n = 20)	68.4 ± 9.71	75.1 ± 11.50	80.1 ± 11.00	74.5 ± 10.74
Cont. (n = 10)	77.2 ± 6.16	81.5 ± 3.78	79.9 ± 4.41	79.5 ± 4.78
Marginal Means	71.3 ± 9.57	77.2 ± 10.03	80.0 ± 9.23	

The hypothesis was that there will be no significant difference in free throw percentage scores among the pretest, midtest, and posttests for subjects in either the experimental or control groups. The hypothesis was tested at the .05 significance level.

The ANOVA results are shown in Table V (p. 44). The results of the data analysis revealed that the main effect for the repeated measure, time, was significant at the .05 level. Newman-Keuls post hoc analysis revealed significant ($p < .05$) differences among all three means.

The interaction effect was also significant ($p < .05$) and post hoc analysis revealed a significant ($p < .05$) difference from pretest to midtest and from pretest to posttest within the experimental group. There were no significant ($p > .05$) within group differences for the control group. Therefore, the null hypothesis that there will be no

significant difference in free throw percentage scores among the pretest, midtest, and posttests for subjects in either the experimental or control group was rejected. Figure 1 (p. 46) displays the interaction effect.

TABLE V
ANOVA TABLE
EXPERIMENTAL AND CONTROL GROUPS WITH REPEATED MEASURES

Source of Variation	SS	DF	MS	F	Sig of F
GROUP	503.34	1	503.34	2.46	.128
Error	5733.12	28	204.75		
TIME	761.03	2	380.52	14.06	.000*
GROUP BY TIME	292.14	2	146.07	5.40	.007
Error	1516.03	56	27.07		
Total	8805.66	89			* p < 0.05

Discussion

Since changes were observed in the mean scores for the experimental group between the pretest, midtest, and posttest and not for the control group, the Amberry Method, using focus and concentration skills and a ritual, was deemed to be an effective method for learning free throw shooting skills.

It was interesting to note that three of the subjects in the experimental group completed the posttest with percentages above 90 percent. Nineteen of the 20 experimental group subjects improved in free throw shooting percentage. One experimental group subject made 97 of 100 attempts after making 76 of 100 in the pretest. The improvement of 21 free throws is a substantial improvement and with

continued practice this subject could conceivably become an outstanding free throw shooter in the competitive situation. Four of the experimental group subjects made improvements of 20 or more free throws between the measurement points. The greatest gain by a subject was from 63 of 100 free throws in the pretest to 90 of 100 in the posttest.

Interestingly, only one subject in the experimental group failed to show a gain between the pretest and posttest. The subject decreased by 14 free throws and it could be assumed that the subject failed to seriously try to learn the Amberry Method.

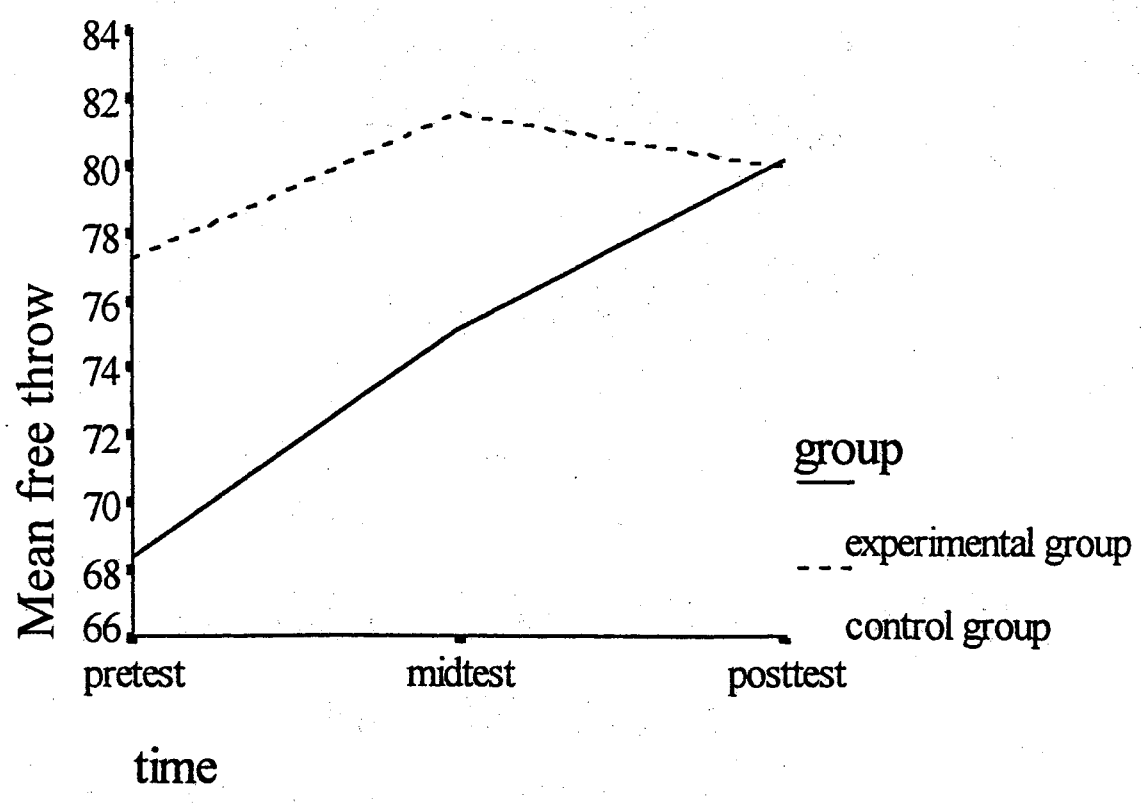
There was a greater range of scores in all measurement points for the experimental group. Possibly, this can be explained in that the subjects in the experimental group were less capable free throw shooters as a whole than the control group at the beginning of the study. The fact that the experimental group was less successful could have been a motivating factor to try a new method of free throw shooting and could account for the significant gains made by the group.

The control group had a narrow range of scores at all measurement points and showed a decrease in the group free throw percentage from the midtest to the posttest. It is possible that the subjects in the control group became bored and unchallenged by daily free throw practice since they made no significant improvement at each measurement period.

The articles and studies in the literature review suggested that free throw shooters should adopt some type of ritual and mental preparation in the practice and game situations. There is also evidence in the literature that indicates a method of sound

mechanics or fundamentals should be used for every shot. The results of the study seem to indicate that the adoption of a ritual and mental preparation when practicing free throws can result in a higher percentage of successful shots when used in conjunction with a prescribed method of shooting, such as the Amberry Method.

FIGURE 1
INTERACTION EFFECT
EXPERIMENTAL AND CONTROL GROUPS



CHAPTER V

SUMMARY, FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The purpose of this study was to determine if the Amberry Method of free throw shooting would significantly increase free throw percentage using male and female basketball players. The Amberry Method of free throw shooting was used by the experimental group in a 30 practice session period of six weeks with the 20 subjects shooting 3000 free throws each. A nonequivalent control group completed the same procedures.

It was hypothesized that there would be no significant difference in free throw percentage scores among the pretest, midtest, and posttests for subjects in either the experimental or control groups. The hypothesis was tested at the .05 significance level.

Findings

The results of the data analysis revealed that there were significant differences between the pretest, midtest, and posttest free throw percentage for 90% of the experimental group subjects. The null hypothesis that there would be no significant difference in free throw percentage scores among the pretest, midtest, and posttests for

subjects in either the experimental or control group was rejected.

Conclusions

1. The use of the Amberry Method of Free throw shooting helped the subjects in the experimental group to improve their free throw percentage scores by an average of 12.7 percent from pretest to posttest.

2. The subjects in the control group showed little or no improvement in their free throw percentage scores from pretest to posttest.

3. The use of a ritual in the Amberry Method helped the subjects in the experimental group to shoot the same shot every time which led to significant free throw percentage gains.

4. The learning of focus and concentration skills by the experimental group led to significant free throw percentage gains.

Recommendations

The results of this study show that it might be advantageous for basketball coaches to require their players to use a free throw shooting technique such as the Amberry Method. With this thought in mind, the author recommends the following studies:

1. A replication of this study using a longer practice period between the pretest and posttest will show if free throw percentages increase with more practice sessions. Because of the dramatic improvement in the 30 session practice period, it would be

interesting to see if the rate of improvement would continue during a 60 session practice period.

2. A study to investigate the free throw percentage of the Amberry Method subjects in game situations would validate the use of the transfer design format. This would provide evidence to coaches so they could structure free throw practice to replicate the game situation.

3. A single subject design study of an Amberry Method user who is observed over a three or four year period would add valuable long term data. The continuous use of the method with the ritual, focus and concentration skills could lead to a player who shoots in the mid to high 90 percent range.

4. A study using a single team of 12 to 15 players at the high school level that extended over the entire season and used the Amberry method. The study would begin at the start of the practice sessions with free throw shooting data kept on a daily basis. Practice free throw data would be compared against game free throw data for each player to determine the validity of practice drills and the transfer of skills to the competitive situation.

5. A study using female basketball players to substantiate that the Amberry Method will help to improve free throw shooting with both genders.

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APPENDICES

APPENDIX A

THE AMBERRY METHOD OF FREE THROW SHOOTING

THE AMBERRY METHOD OF FREE THROW SHOOTING

Seven Steps to a Perfect Free Throw

Step 1. Feet square to the line.

“When the lines are painted on a basketball court, the painter drives a nail into the center of the free throw line. A string is tied to this nail and used to draw the circular shape for the top of the key. This little dot is called the ‘painter’s hole’ and it is dead center on the free throw line. When you’re getting ready to shoot a free throw, use the painter’s hole to make sure you are centered on the foul line. Straddle the hole, feet about shoulder-width apart, squared to the line. Using the painter’s hole will guarantee you are in exactly the same place on the line every time. Squaring up puts your body in just the right position to go straight at the basket with your shooting arm. I should also mention that a good free throw shooter has his or her weight forward on the balls of the feet. The body should be leaning forward in a balanced active stance” (p. 28-29).

Step 2. Bounce the ball three times with the inflation hole up.

“I realized what the only universal element is on a basketball – the little round rubber inflation hole. Let’s look at how to use the inflation hole to help you focus and concentrate on making all your free throws. When the ref hands you the ball, turn it so the inflation hole is up. With your eye on this little black rubber dot, bounce the ball slowly three times. Don’t dribble the ball. Bounce it slowly and deliberately. This will bring you back to the here and now. It will remind you that this is a different shot, a ‘game within a game.’ It will create a quiet, isolated period of concentration where the tempo is different. In a practical sense, locating the inflation hole guarantees that, when you hold the ball before shooting, you will hold it the same way every time. But looking at the inflation hole is also a mental step. The inflation hole is meaningless, completely neutral. So looking at this little round rubber dot will help you clear your mind of all the pressure-producing thoughts that build up during a tight game” (p. 29-30).

Step 3. Put your thumb in the channel, your third finger pointing at the inflation hole.

“Your connection to the basketball is your hand, or actually, your fingertips. The ball has to feel good in your hand. Why not hold it the same way every time? The way it feels best, almost molded to your hand. Don’t think of the ball as a separate object that resists you. Think of it as an extension of your body – that will obey you even after it’s left your finger tips and is arcing toward the basket. You’ll find that when you catch the ball after the third bounce, you can simultaneously put your hand in the correct position. Practicing this move will make the steps blend together smoothly. Put your thumb in the ‘channel,’ or groove, in such a way that your third finger is pointed at the inflation hole. Putting your thumb in the channel will also put some rotation, or backspin, on the ball as you release it. You don’t have to try to do anything extra. With the correct release from your finger from your fingertips and thumb, the rotation will automatically be added to the shot. This rotation can make the difference between shooting a basket and throwing up a brick” (p. 31-32).

Step 4. Elbow in.

“The first three steps have gotten you into the best possible position to sink a free throw. Your mind is clear of extraneous thoughts and you are holding the ball with your thumb in the groove. The next four steps are the actual shooting steps. I have separated these four motions into separate steps to help you learn, remember, and practice them. In reality, they are interrelated, overlapping, and blending together so smoothly they will seem like one fluid motion, always leading to the basket. This process begins when you bring your elbow into the ‘shot pocket’.

What is the shot pocket? Set the ball down for a moment. Now take up your stance straddling the painter’s hole on the free throw line. Extend your arm toward the middle of the back rim of the basket. Pull your arm back until your hand is in the middle of your chest. Your shooting hand is now on an imaginary line that runs through your body and leads to the center of the basket.

Now pick up the ball, hold it with your thumb in the groove, and put your hand in the same position. If you are like a lot of players, you may still have your elbow out in the breeze somewhere. You need to bring it into position, so that your elbow is in the ‘shot

pocket.’

There are only four ways to miss a basket: short, long, right, or left. If you bring your elbow in and straighten your arm so your fingers go right at the basket, you eliminate missing to the right and left. You’ve just cut your misses down by 50 percent.

Of all the steps I recommend, bringing the elbow in feels the most unnatural to many players. But it also the most important of all the free throw shooting mechanics.

I often see players shooting from the outside with their elbow stuck out. They do that to ward off defenders who are trying to strip the ball away. But remember what I said earlier: the free throw is different. No one’s in your face. You’re in complete control. So you want to shoot it the way that will give you the highest consistency. That means bringing the elbow in.

Think about this for a second. When a right hander extends his or her arm with the elbow out while shooting, the ball is pushed across the target, ending with the hand positioned to one side of the basket. To hit the target, you have to release the ball at just that fraction of a second when the hand is in the exact right position. To do this you need extremely good feel and touch. Those are the first things to desert you when you’re under pressure at the free throw line.

When you start the shot with the elbow in, the hand and the ball are traveling right down the line that leads to the basket. While it may feel machinelike at first, that’s okay. I want you to turn yourself into a scoring machine. So bring that elbow in and relax – tell yourself that there’s no way you can miss right or left” (p. 32-34).

Step 5. Bend your knees.

Some experts have suggested that free throw shooting should be an upper body movement. I completely disagree. Bending your legs – the same amount each time – will give your shot just the right distance. Then your arm can guide the ball into the basket. If you don’t believe me, try shooting while sitting in a chair. Sure you can reach the basket. But when you’re straining for distance, your accuracy suffers.

When shooting, we tend to forget the legs and overemphasize the arm, hand, and fingertips. That’s because the ball is in our hands.

We feel it with our fingers. But the shot is actually a series of linked actions that move from the ground up. Not only do you get the right distance with the proper knee bend, you also set up a smooth flow for the actions that follow. The knee bend sends a fluid wave through the whole body that launches the ball toward the center of the basket.

There is another good reason to originate the shot from the legs. The big leg muscles are more reliable when you get jitters on the line when shooting a clutch free throw. The movements of the smaller arm, wrist, and hand muscles are apt to be jerky and exaggerated.

How deeply should you bend the legs? You have to experiment. But it will probably be a little more than you think. Bend the legs enough so your arm feels as if it isn't doing any work at all. You will see that the knee bend naturally adds a nice high arc to the ball, too.

With a good knee bend you will never miss short of the rim. If I were forced to choose, a shot that is too long is better than one that is too short. A long shot still has a chance of going in, even when it banks off the backboard. But an air ball is not only a lost point, it's a complete embarrassment.

Once you find your legs giving the right distance to the shot, groove this feeling and let it blend with the rest of your free throw shot. Remember, the arc of the ball is a combination of the knee bend and angle at which your arm extends. Let these factors work together smoothly.

One other thing. When you get under pressure, the muscles in the body tighten. This is most noticeable in the legs. You tend to stand stiff-legged when you're under the gun. Just before you begin your ritual, do a couple of knee bends to keep loose. Then, when you get into your routine, your knees will bend just the way they did in practice" (p. 34-35)"

Step 6. Eyes on the target.

"Someone once told me that it's not important where you are that counts, it's what your sights are set on that will bring you success or failure. In this step, you are going to set your sights on where you want the ball to go and keep them there until you hear the crowd

cheer. In other words, before you even shoot the ball, tell your body you are not going to watch the ball in flight. This keeps your body still and sends your mind a powerful message. The ball is going to find the target.

There have been many theories about where to look when shooting. Your first instinct is to focus on the front of the rim since that's what you see when you look at the basket. But this causes shots to miss short. If you look at the front of the rim, you hit the front of the rim. This doesn't indicate a problem with your shot. The problem is what you are aiming at.

Other shooters say they aim for the back of the rim. But you don't want to hit that either. If you actually hit the rim, you can't be sure that the ball will drop into the basket.

Your target is actually an empty space, a cylinder of air through which you want the ball to drop. Look at the space above the back rim and keep your eyes there until you see the ball drop through it on the way into the basket.

Those of you paying close attention may be puzzled by the order of these steps. I have told you to bend your knees, then look up at the target. You might feel that I'm not allowing enough time to look at the target before you shoot. This is the whole idea. You don't want to look at the target too long before shooting. In fact, you want to shoot while the first image of the basket is flashing onto the screen of your brain. This keeps you from thinking. At this moment, thinking is the worst thing you could do. As I've said before, you already know where the basket is. The danger is not having too little time to look at the basket. The danger is looking at the basket so long you interrupt the flow of these interconnected moves" (p. 36-37).

"With the ball in your hands, your eyes are still on the inflation hole. Now like a powerful beam of light, or like the lens on a camera, your eyes go directly from the inflation hole to the space above the back rim of the basket. As you do this the ball is raised into the shooting position just below your chin. You are now sighting over the top of the ball at the basket.

Let me interrupt this description for a moment to stress something vitally important. It is at this moment that many players freeze. Naturally, they want to make absolutely sure this shot goes in. To

accomplish that goal they take an extra moment to 'make sure' by staring at the target. This is actually counterproductive because it results in a condition called 'focal dystonia.'

Focal dystonia is a fancy way of saying that when you stare at something for a long time, the image fades. You can still see what you are looking at, but its image in your brain is no longer vivid. This is the last thing you want to happen to your target. So you need to shoot while that first flash of the target is blazing in your mind.

There is another important concept at work here. I've spoken repeatedly about bypassing the thinking process of the mind. One way to do this is not to give the mind time to engage its rational qualities.

Police officers are given handgun training by flashing a sudden target in front of them. They don't have time to raise their weapon, sight along the barrel and fire. The aiming has to be instinct. Use that same principle here. In game action you are used to shooting without staring at the target. Do the same thing now" (p. 67).

Step 7. Shoot and follow through.

"Your feet and shoulders are square to the basket, your elbow is tucked in, your knees are giving just the right push to the shot, and your eyes are locked on the target. Your preparation up to this point is so good the will almost take care of itself.

You still need to extend your shooting arm smoothly from the shot pocket straight at the target. You need to have a good release and make sure your follow-through is complete. However, you have already placed your body in position so those motions will follow naturally and smoothly.

We know the follow-through is important because it has a strong influence on what comes just before it – the release. If you begin and continue a shot, even when the ball is on its way, you'll guarantee the best arc, backspin, and touch. It will make your movements smooth and complete" (p. 37-38).

APPENDIX B

A MANUAL FOR DAILY FREE THROW PRACTICE

A MANUAL FOR DAILY FREE THROW

PRACTICE



MAKE EVERY FREE THROW

“Perfect practice makes perfect”

PRETEST

“DON'T LET ANYBODY STEAL YOUR DREAM”

**INSTRUCTIONS:
SHOOT 100 FREE THROWS IN SETS OF 10 USING THE PRE-DETERMINED
TRANSFER DESIGN FORMAT**

SET #1	3	2	1	2	2	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #2	2	1	2	2	3	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #3	1	2	2	3	2	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #4	2	2	3	2	1	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #5	2	3	2	1	2	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #6	3	2	1	2	2	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #7	2	1	2	2	3	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #8	1	2	2	3	2	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #9	2	2	3	2	1	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #10	2	3	2	1	2	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
TOTAL: _____ OUT OF 100 PERCENTAGE _____						

PRACTICE SESSION #1

“DON'T LET WEEDS GROW UNDER YOUR DREAMS”

INSTRUCTIONS:

SHOOT 100 FREE THROWS IN SETS OF 10 USING THE PRE-DETERMINED TRANSFER DESIGN FORMAT

SET #1	2	1	2	2	3	TOTAL
NUMBER MADE	___	___	___	___	___	___
SET #2	1	2	2	3	2	TOTAL
NUMBER MADE	___	___	___	___	___	___
SET #3	2	2	3	2	1	TOTAL
NUMBER MADE	___	___	___	___	___	___
SET #4	2	3	2	1	2	TOTAL
NUMBER MADE	___	___	___	___	___	___
SET #5	3	2	1	2	2	TOTAL
NUMBER MADE	___	___	___	___	___	___
SET #6	2	1	2	2	3	TOTAL
NUMBER MADE	___	___	___	___	___	___
SET #7	1	2	2	3	2	TOTAL
NUMBER MADE	___	___	___	___	___	___
SET #8	2	2	3	2	1	TOTAL
NUMBER MADE	___	___	___	___	___	___
SET #9	2	3	2	1	2	TOTAL
NUMBER MADE	___	___	___	___	___	___
SET #10	3	2	1	2	2	TOTAL
NUMBER MADE	___	___	___	___	___	___
TOTAL: ___ OUT OF 100 PERCENTAGE ___						

PRACTICE SESSION #2

“FREE THROW SHOOTING IS A JOURNEY. STAY FOCUSED”

INSTRUCTIONS:
**SHOOT 100 FREE THROWS IN SETS OF 10 USING THE PRE-DETERMINED
 TRANSFER DESIGN FORMAT**

SET #1 NUMBER MADE	1 _____	2 _____	2 _____	3 _____	2 _____	TOTAL _____
SET #2 NUMBER MADE	2 _____	2 _____	3 _____	2 _____	1 _____	TOTAL _____
SET #3 NUMBER MADE	2 _____	3 _____	2 _____	1 _____	2 _____	TOTAL _____
SET #4 NUMBER MADE	3 _____	2 _____	1 _____	2 _____	2 _____	TOTAL _____
SET #5 NUMBER MADE	2 _____	1 _____	2 _____	2 _____	3 _____	TOTAL _____
SET #6 NUMBER MADE	1 _____	2 _____	2 _____	3 _____	2 _____	TOTAL _____
SET #7 NUMBER MADE	2 _____	2 _____	3 _____	2 _____	1 _____	TOTAL _____
SET #8 NUMBER MADE	2 _____	3 _____	2 _____	1 _____	2 _____	TOTAL _____
SET #9 NUMBER MADE	3 _____	2 _____	1 _____	2 _____	2 _____	TOTAL _____
SET #10 NUMBER MADE	2 _____	1 _____	2 _____	2 _____	3 _____	TOTAL _____
TOTAL: _____ OUT OF 100 PERCENTAGE _____						

PRACTICE SESSION #3

“SEE SUCCESS WHERE OTHERS SEE ONLY FAILURE”

INSTRUCTIONS:

SHOOT 100 FREE THROWS IN SETS OF 10 USING THE PRE-DETERMINED TRANSFER DESIGN FORMAT

SET #1 NUMBER MADE	2 _____	2 _____	3 _____	2 _____	1 _____	TOTAL _____
SET #2 NUMBER MADE	2 _____	3 _____	2 _____	1 _____	2 _____	TOTAL _____
SET #3 NUMBER MADE	3 _____	2 _____	1 _____	2 _____	2 _____	TOTAL _____
SET #4 NUMBER MADE	2 _____	1 _____	2 _____	2 _____	3 _____	TOTAL _____
SET #5 NUMBER MADE	1 _____	2 _____	2 _____	3 _____	2 _____	TOTAL _____
SET #6 NUMBER MADE	2 _____	2 _____	3 _____	2 _____	1 _____	TOTAL _____
SET #7 NUMBER MADE	2 _____	3 _____	2 _____	1 _____	2 _____	TOTAL _____
SET #8 NUMBER MADE	3 _____	2 _____	1 _____	2 _____	2 _____	TOTAL _____
SET #9 NUMBER MADE	2 _____	1 _____	2 _____	2 _____	3 _____	TOTAL _____
SET #10 NUMBER MADE	1 _____	2 _____	2 _____	3 _____	2 _____	TOTAL _____
TOTAL: _____ OUT OF 100 PERCENTAGE _____						

PRACTICE SESSION #4

“DON'T BE LESS THAN YOU ARE CAPABLE OF BEING”

INSTRUCTIONS:

SHOOT 100 FREE THROWS IN SETS OF 10 USING THE PRE-DETERMINED TRANSFER DESIGN FORMAT

SET #1	2	3	2	1	2	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #2	3	2	1	2	2	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #3	2	1	2	2	3	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #4	1	2	2	3	2	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #5	2	2	3	2	1	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #6	2	3	2	1	2	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #7	3	2	1	2	2	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #8	2	1	2	2	3	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #9	1	2	2	3	2	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #10	2	2	3	2	1	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
TOTAL: _____ OUT OF 100 PERCENTAGE _____						

PRACTICE SESSION #5

“HE WHO STOPS BEING BETTER STOPS BEING GOOD”

INSTRUCTIONS:

SHOOT 100 FREE THROWS IN SETS OF 10 USING THE PRE-DETERMINED TRANSFER DESIGN FORMAT

SET #1 NUMBER MADE	3 _____	2 _____	1 _____	2 _____	2 _____	TOTAL _____
SET #2 NUMBER MADE	2 _____	1 _____	2 _____	2 _____	3 _____	TOTAL _____
SET #3 NUMBER MADE	1 _____	2 _____	2 _____	3 _____	2 _____	TOTAL _____
SET #4 NUMBER MADE	2 _____	2 _____	3 _____	2 _____	1 _____	TOTAL _____
SET #5 NUMBER MADE	2 _____	3 _____	2 _____	1 _____	2 _____	TOTAL _____
SET #6 NUMBER MADE	3 _____	2 _____	1 _____	2 _____	2 _____	TOTAL _____
SET #7 NUMBER MADE	2 _____	1 _____	2 _____	2 _____	3 _____	TOTAL _____
SET #8 NUMBER MADE	1 _____	2 _____	2 _____	3 _____	2 _____	TOTAL _____
SET #9 NUMBER MADE	2 _____	2 _____	3 _____	2 _____	1 _____	TOTAL _____
SET #10 NUMBER MADE	2 _____	3 _____	2 _____	1 _____	2 _____	TOTAL _____
TOTAL: _____ OUT OF 100 PERCENTAGE _____						

PRACTICE SESSION #6

"IF YOU CAN DREAM IT, YOU CAN DO IT"

INSTRUCTIONS:

SHOOT 100 FREE THROWS IN SETS OF 10 USING THE PRE-DETERMINED TRANSFER DESIGN FORMAT

SET #1	2	1	2	2	3	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #2	1	2	2	3	2	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #3	2	2	3	2	1	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #4	2	3	2	1	2	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #5	3	2	1	2	2	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #6	2	1	2	2	3	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #7	1	2	2	3	2	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #8	2	2	3	2	1	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #9	2	3	2	1	2	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #10	3	2	1	2	2	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
TOTAL: _____ OUT OF 100 PERCENTAGE _____						

PRACTICE SESSION #8

“COMMIT YOURSELF TO A DREAM”

INSTRUCTIONS:

SHOOT 100 FREE THROWS IN SETS OF 10 USING THE PRE-DETERMINED TRANSFER DESIGN FORMAT

SET #1 NUMBER MADE	2 _____	2 _____	3 _____	2 _____	1 _____	TOTAL _____
SET #2 NUMBER MADE	2 _____	3 _____	2 _____	1 _____	2 _____	TOTAL _____
SET #3 NUMBER MADE	3 _____	2 _____	1 _____	2 _____	2 _____	TOTAL _____
SET #4 NUMBER MADE	2 _____	1 _____	2 _____	2 _____	3 _____	TOTAL _____
SET #5 NUMBER MADE	1 _____	2 _____	2 _____	3 _____	2 _____	TOTAL _____
SET #6 NUMBER MADE	2 _____	2 _____	3 _____	2 _____	1 _____	TOTAL _____
SET #7 NUMBER MADE	2 _____	3 _____	2 _____	1 _____	2 _____	TOTAL _____
SET #8 NUMBER MADE	3 _____	2 _____	1 _____	2 _____	2 _____	TOTAL _____
SET #9 NUMBER MADE	2 _____	1 _____	2 _____	2 _____	3 _____	TOTAL _____
SET #10 NUMBER MADE	1 _____	2 _____	2 _____	3 _____	2 _____	TOTAL _____
TOTAL: _____ OUT OF 100 PERCENTAGE _____						

PRACTICE SESSION #9

“YOU’LL ALWAYS MISS 100% OF THE FREE THROWS YOU DON’T SHOOT”

INSTRUCTIONS:

SHOOT 100 FREE THROWS IN SETS OF 10 USING THE PRE-DETERMINED TRANSFER DESIGN FORMAT

SET #1	2	3	2	1	2	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #2	3	2	1	2	2	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #3	2	1	2	2	3	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #4	1	2	2	3	2	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #5	2	2	3	2	1	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #6	2	3	2	1	2	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #7	3	2	1	2	2	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #8	2	1	2	2	3	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #9	1	2	2	3	2	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #10	2	2	3	2	1	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
TOTAL: _____ OUT OF 100 PERCENTAGE _____						

PRACTICE SESSION #10

“SUCCESS COMES DOWN TO SACRIFICE—WILLINGNESS TO PAY THE PRICE”

INSTRUCTIONS:

SHOOT 100 FREE THROWS IN SETS OF 10 USING THE PRE-DETERMINED TRANSFER DESIGN FORMAT

SET #1 NUMBER MADE	3 _____	2 _____	1 _____	2 _____	2 _____	TOTAL _____
SET #2 NUMBER MADE	2 _____	1 _____	2 _____	2 _____	3 _____	TOTAL _____
SET #3 NUMBER MADE	1 _____	2 _____	2 _____	3 _____	2 _____	TOTAL _____
SET #4 NUMBER MADE	2 _____	2 _____	3 _____	2 _____	1 _____	TOTAL _____
SET #5 NUMBER MADE	2 _____	3 _____	2 _____	1 _____	2 _____	TOTAL _____
SET #6 NUMBER MADE	3 _____	2 _____	1 _____	2 _____	2 _____	TOTAL _____
SET #7 NUMBER MADE	2 _____	1 _____	2 _____	2 _____	3 _____	TOTAL _____
SET #8 NUMBER MADE	1 _____	2 _____	2 _____	3 _____	2 _____	TOTAL _____
SET #9 NUMBER MADE	2 _____	2 _____	3 _____	2 _____	1 _____	TOTAL _____
SET #10 NUMBER MADE	2 _____	3 _____	2 _____	1 _____	2 _____	TOTAL _____
TOTAL: _____ OUT OF 100 PERCENTAGE _____						

PRACTICE SESSION #11

“CHAMPIONS SEIZE THEIR DAY”

INSTRUCTIONS:
**SHOOT 100 FREE THROWS IN SETS OF 10 USING THE PRE-DETERMINED
 TRANSFER DESIGN FORMAT**

SET #1	2	1	2	2	3	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #2	1	2	2	3	2	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #3	2	2	3	2	1	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #4	2	3	2	1	2	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #5	3	2	1	2	2	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #6	2	1	2	2	3	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #7	1	2	2	3	2	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #8	2	2	3	2	1	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #9	2	3	2	1	2	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #10	3	2	1	2	2	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
TOTAL: _____ OUT OF 100 PERCENTAGE _____						

PRACTICE SESSION #12

“THE QUALITY OF YOUR PREPARATION DETERMINES THE QUALITY OF YOUR PERFORMANCE”

INSTRUCTIONS:

SHOOT 100 FREE THROWS IN SETS OF 10 USING THE PRE-DETERMINED TRANSFER DESIGN FORMAT

SET #1 NUMBER MADE	1 _____	2 _____	2 _____	3 _____	2 _____	TOTAL _____
SET #2 NUMBER MADE	2 _____	2 _____	3 _____	2 _____	1 _____	TOTAL _____
SET #3 NUMBER MADE	2 _____	3 _____	2 _____	1 _____	2 _____	TOTAL _____
SET #4 NUMBER MADE	3 _____	2 _____	1 _____	2 _____	2 _____	TOTAL _____
SET #5 NUMBER MADE	2 _____	1 _____	2 _____	2 _____	3 _____	TOTAL _____
SET #6 NUMBER MADE	1 _____	2 _____	2 _____	3 _____	2 _____	TOTAL _____
SET #7 NUMBER MADE	2 _____	2 _____	3 _____	2 _____	1 _____	TOTAL _____
SET #8 NUMBER MADE	2 _____	3 _____	2 _____	1 _____	2 _____	TOTAL _____
SET #9 NUMBER MADE	3 _____	2 _____	1 _____	2 _____	2 _____	TOTAL _____
SET #10 NUMBER MADE	2 _____	1 _____	2 _____	2 _____	3 _____	TOTAL _____
TOTAL: _____ OUT OF 100 PERCENTAGE _____						

PRACTICE SESSION #13

“TAKE TIME TO DO THINGS RIGHT”

INSTRUCTIONS:

SHOOT 100 FREE THROWS IN SETS OF 10 USING THE PRE-DETERMINED TRANSFER DESIGN FORMAT

SET #1	2	2	3	2	1	TOTAL
NUMBER MADE	___	___	___	___	___	___
SET #2	2	3	2	1	2	TOTAL
NUMBER MADE	___	___	___	___	___	___
SET #3	3	2	1	2	2	TOTAL
NUMBER MADE	___	___	___	___	___	___
SET #4	2	1	2	2	3	TOTAL
NUMBER MADE	___	___	___	___	___	___
SET #5	1	2	2	3	2	TOTAL
NUMBER MADE	___	___	___	___	___	___
SET #6	2	2	3	2	1	TOTAL
NUMBER MADE	___	___	___	___	___	___
SET #7	2	3	2	1	2	TOTAL
NUMBER MADE	___	___	___	___	___	___
SET #8	3	2	1	2	2	TOTAL
NUMBER MADE	___	___	___	___	___	___
SET #9	2	1	2	2	3	TOTAL
NUMBER MADE	___	___	___	___	___	___
SET #10	1	2	2	3	2	TOTAL
NUMBER MADE	___	___	___	___	___	___
TOTAL: ___ OUT OF 100 PERCENTAGE ___						

PRACTICE SESSION #15 (MIDTEST)

“SPECIALIZE IN THE IMPOSSIBLE”

INSTRUCTIONS:
SHOOT 100 FREE THROWS IN SETS OF 10 USING THE PRE-DETERMINED TRANSFER DESIGN FORMAT

SET #1	3	2	1	2	2	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #2	2	1	2	2	3	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #3	1	2	2	3	2	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #4	2	2	3	2	1	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #5	2	3	2	1	2	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #6	3	2	1	2	2	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #7	2	1	2	2	3	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #8	1	2	2	3	2	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #9	2	2	3	2	1	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #10	2	3	2	1	2	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
TOTAL: _____ OUT OF 100 PERCENTAGE _____						

PRACTICE SESSION #16

"HAVE NO LIMITS"

INSTRUCTIONS:
**SHOOT 100 FREE THROWS IN SETS OF 10 USING THE PRE-DETERMINED
 TRANSFER DESIGN FORMAT**

SET #1	2	1	2	2	3	TOTAL
NUMBER MADE	___	___	___	___	___	___
SET #2	1	2	2	3	2	TOTAL
NUMBER MADE	___	___	___	___	___	___
SET #3	2	2	3	2	1	TOTAL
NUMBER MADE	___	___	___	___	___	___
SET #4	2	3	2	1	2	TOTAL
NUMBER MADE	___	___	___	___	___	___
SET #5	3	2	1	2	2	TOTAL
NUMBER MADE	___	___	___	___	___	___
SET #6	2	1	2	2	3	TOTAL
NUMBER MADE	___	___	___	___	___	___
SET #7	1	2	2	3	2	TOTAL
NUMBER MADE	___	___	___	___	___	___
SET #8	2	2	3	2	1	TOTAL
NUMBER MADE	___	___	___	___	___	___
SET #9	2	3	2	1	2	TOTAL
NUMBER MADE	___	___	___	___	___	___
SET #10	3	2	1	2	2	TOTAL
NUMBER MADE	___	___	___	___	___	___
TOTAL: ___ OUT OF 100 PERCENTAGE ___						

PRACTICE SESSION #17

“THE WORD ‘CAN’T’ REALLY MEANS YOU WON’T TRY”

INSTRUCTIONS:
**SHOOT 100 FREE THROWS IN SETS OF 10 USING THE PRE-DETERMINED
 TRANSFER DESIGN FORMAT**

SET #1 NUMBER MADE	1 _____	2 _____	2 _____	3 _____	2 _____	TOTAL _____
SET #2 NUMBER MADE	2 _____	2 _____	3 _____	2 _____	1 _____	TOTAL _____
SET #3 NUMBER MADE	2 _____	3 _____	2 _____	1 _____	2 _____	TOTAL _____
SET #4 NUMBER MADE	3 _____	2 _____	1 _____	2 _____	2 _____	TOTAL _____
SET #5 NUMBER MADE	2 _____	1 _____	2 _____	2 _____	3 _____	TOTAL _____
SET #6 NUMBER MADE	1 _____	2 _____	2 _____	3 _____	2 _____	TOTAL _____
SET #7 NUMBER MADE	2 _____	2 _____	3 _____	2 _____	1 _____	TOTAL _____
SET #8 NUMBER MADE	2 _____	3 _____	2 _____	1 _____	2 _____	TOTAL _____
SET #9 NUMBER MADE	3 _____	2 _____	1 _____	2 _____	2 _____	TOTAL _____
SET #10 NUMBER MADE	2 _____	1 _____	2 _____	2 _____	3 _____	TOTAL _____
TOTAL:						
	_____	OUT OF 100		PERCENTAGE		_____

PRACTICE SESSION #18

“NEVER, NEVER, NEVER QUIT”

INSTRUCTIONS:
**SHOOT 100 FREE THROWS IN SETS OF 10 USING THE PRE-DETERMINED
 TRANSFER DESIGN FORMAT**

SET #1	2	2	3	2	1	TOTAL
NUMBER MADE	___	___	___	___	___	___
SET #2	2	3	2	1	2	TOTAL
NUMBER MADE	___	___	___	___	___	___
SET #3	3	2	1	2	2	TOTAL
NUMBER MADE	___	___	___	___	___	___
SET #4	2	1	2	2	3	TOTAL
NUMBER MADE	___	___	___	___	___	___
SET #5	1	2	2	3	2	TOTAL
NUMBER MADE	___	___	___	___	___	___
SET #6	2	2	3	2	1	TOTAL
NUMBER MADE	___	___	___	___	___	___
SET #7	2	3	2	1	2	TOTAL
NUMBER MADE	___	___	___	___	___	___
SET #8	3	2	1	2	2	TOTAL
NUMBER MADE	___	___	___	___	___	___
SET #9	2	1	2	2	3	TOTAL
NUMBER MADE	___	___	___	___	___	___
SET #10	1	2	2	3	2	TOTAL
NUMBER MADE	___	___	___	___	___	___
TOTAL: ___ OUT OF 100 PERCENTAGE ___						

PRACTICE SESSION #19

***“YOU’LL NEVER SUCCEED BEYOND YOUR WILDEST DREAMS UNLESS YOU
HAVE SOME WILD DREAMS”***

**INSTRUCTIONS:
SHOOT 100 FREE THROWS IN SETS OF 10 USING THE PRE-DETERMINED
TRANSFER DESIGN FORMAT**

SET #1 NUMBER MADE	2 _____	3 _____	2 _____	1 _____	2 _____	TOTAL _____
SET #2 NUMBER MADE	3 _____	2 _____	1 _____	2 _____	2 _____	TOTAL _____
SET #3 NUMBER MADE	2 _____	1 _____	2 _____	2 _____	3 _____	TOTAL _____
SET #4 NUMBER MADE	1 _____	2 _____	2 _____	3 _____	2 _____	TOTAL _____
SET #5 NUMBER MADE	2 _____	2 _____	3 _____	2 _____	1 _____	TOTAL _____
SET #6 NUMBER MADE	2 _____	3 _____	2 _____	1 _____	2 _____	TOTAL _____
SET #7 NUMBER MADE	3 _____	2 _____	1 _____	2 _____	2 _____	TOTAL _____
SET #8 NUMBER MADE	2 _____	1 _____	2 _____	2 _____	3 _____	TOTAL _____
SET #9 NUMBER MADE	1 _____	2 _____	2 _____	3 _____	2 _____	TOTAL _____
SET #10 NUMBER MADE	2 _____	2 _____	3 _____	2 _____	1 _____	TOTAL _____
TOTAL: _____ OUT OF 100 PERCENTAGE _____						

PRACTICE SESSION #20

“FIND A REASON WHY YOU ‘CAN’”

INSTRUCTIONS:

SHOOT 100 FREE THROWS IN SETS OF 10 USING THE PRE-DETERMINED TRANSFER DESIGN FORMAT

SET #1	3	2	1	2	2	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #2	2	1	2	2	3	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #3	1	2	2	3	2	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #4	2	2	3	2	1	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #5	2	3	2	1	2	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #6	3	2	1	2	2	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #7	2	1	2	2	3	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #8	1	2	2	3	2	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #9	2	2	3	2	1	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #10	2	3	2	1	2	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
TOTAL: _____ OUT OF 100 PERCENTAGE _____						

PRACTICE SESSION #21

“DO WHAT PEOPLE SAY YOU CAN’T DO”

INSTRUCTIONS:
SHOOT 100 FREE THROWS IN SETS OF 10 USING THE PRE-DETERMINED TRANSFER DESIGN FORMAT

SET #1 NUMBER MADE	2 _____	1 _____	2 _____	2 _____	3 _____	TOTAL _____
SET #2 NUMBER MADE	1 _____	2 _____	2 _____	3 _____	2 _____	TOTAL _____
SET #3 NUMBER MADE	2 _____	2 _____	3 _____	2 _____	1 _____	TOTAL _____
SET #4 NUMBER MADE	2 _____	3 _____	2 _____	1 _____	2 _____	TOTAL _____
SET #5 NUMBER MADE	3 _____	2 _____	1 _____	2 _____	2 _____	TOTAL _____
SET #6 NUMBER MADE	2 _____	1 _____	2 _____	2 _____	3 _____	TOTAL _____
SET #7 NUMBER MADE	1 _____	2 _____	2 _____	3 _____	2 _____	TOTAL _____
SET #8 NUMBER MADE	2 _____	2 _____	3 _____	2 _____	1 _____	TOTAL _____
SET #9 NUMBER MADE	2 _____	3 _____	2 _____	1 _____	2 _____	TOTAL _____
SET #10 NUMBER MADE	3 _____	2 _____	1 _____	2 _____	2 _____	TOTAL _____
TOTAL: _____ OUT OF 100 PERCENTAGE _____						

PRACTICE SESSION #22

“DO MORE THAN IS REQUIRED OF YOU”

**INSTRUCTIONS:
SHOOT 100 FREE THROWS IN SETS OF 10 USING THE PRE-DETERMINED
TRANSFER DESIGN FORMAT**

SET #1 NUMBER MADE	1 _____	2 _____	2 _____	3 _____	2 _____	TOTAL _____
SET #2 NUMBER MADE	2 _____	2 _____	3 _____	2 _____	1 _____	TOTAL _____
SET #3 NUMBER MADE	2 _____	3 _____	2 _____	1 _____	2 _____	TOTAL _____
SET #4 NUMBER MADE	3 _____	2 _____	1 _____	2 _____	2 _____	TOTAL _____
SET #5 NUMBER MADE	2 _____	1 _____	2 _____	2 _____	3 _____	TOTAL _____
SET #6 NUMBER MADE	1 _____	2 _____	2 _____	3 _____	2 _____	TOTAL _____
SET #7 NUMBER MADE	2 _____	2 _____	3 _____	2 _____	1 _____	TOTAL _____
SET #8 NUMBER MADE	2 _____	3 _____	2 _____	1 _____	2 _____	TOTAL _____
SET #9 NUMBER MADE	3 _____	2 _____	1 _____	2 _____	2 _____	TOTAL _____
SET #10 NUMBER MADE	2 _____	1 _____	2 _____	2 _____	3 _____	TOTAL _____
TOTAL: _____ OUT OF 100 PERCENTAGE _____						

PRACTICE SESSION #23

“MANY TIMES THE DIFFERENCE BETWEEN FAILURE AND SUCCESS IS DOING SOMETHING NEARLY RIGHT OR DOING IT EXACTLY RIGHT”

INSTRUCTIONS:

SHOOT 100 FREE THROWS IN SETS OF 10 USING THE PRE-DETERMINED TRANSFER DESIGN FORMAT

SET #1	2	2	3	2	1	TOTAL
NUMBER MADE	___	___	___	___	___	___
SET #2	2	3	2	1	2	TOTAL
NUMBER MADE	___	___	___	___	___	___
SET #3	3	2	1	2	2	TOTAL
NUMBER MADE	___	___	___	___	___	___
SET #4	2	1	2	2	3	TOTAL
NUMBER MADE	___	___	___	___	___	___
SET #5	1	2	2	3	2	TOTAL
NUMBER MADE	___	___	___	___	___	___
SET #6	2	2	3	2	1	TOTAL
NUMBER MADE	___	___	___	___	___	___
SET #7	2	3	2	1	2	TOTAL
NUMBER MADE	___	___	___	___	___	___
SET #8	3	2	1	2	2	TOTAL
NUMBER MADE	___	___	___	___	___	___
SET #9	2	1	2	2	3	TOTAL
NUMBER MADE	___	___	___	___	___	___
SET #10	1	2	2	3	2	TOTAL
NUMBER MADE	___	___	___	___	___	___
TOTAL: ___ OUT OF 100 PERCENTAGE ___						

PRACTICE SESSION #25

“MOST PEOPLE DON’T AIM TOO HIGH AND MISS. THEY AIM TOO LOW AND HIT”

INSTRUCTIONS:

SHOOT 100 FREE THROWS IN SETS OF 10 USING THE PRE-DETERMINED TRANSFER DESIGN FORMAT

SET #1 NUMBER MADE	3 _____	2 _____	1 _____	2 _____	2 _____	TOTAL _____
SET #2 NUMBER MADE	2 _____	1 _____	2 _____	2 _____	3 _____	TOTAL _____
SET #3 NUMBER MADE	1 _____	2 _____	2 _____	3 _____	2 _____	TOTAL _____
SET #4 NUMBER MADE	2 _____	2 _____	3 _____	2 _____	1 _____	TOTAL _____
SET #5 NUMBER MADE	2 _____	3 _____	2 _____	1 _____	2 _____	TOTAL _____
SET #6 NUMBER MADE	3 _____	2 _____	1 _____	2 _____	2 _____	TOTAL _____
SET #7 NUMBER MADE	2 _____	1 _____	2 _____	2 _____	3 _____	TOTAL _____
SET #8 NUMBER MADE	1 _____	2 _____	2 _____	3 _____	2 _____	TOTAL _____
SET #9 NUMBER MADE	2 _____	2 _____	3 _____	2 _____	1 _____	TOTAL _____
SET #10 NUMBER MADE	2 _____	3 _____	2 _____	1 _____	2 _____	TOTAL _____
TOTAL: _____ OUT OF 100 PERCENTAGE _____						

PRACTICE SESSION #26

“DREAMS ARE WHAT GET YOU STARTED. DISCIPLINE IS WHAT KEEPS YOU GOING”

**INSTRUCTIONS:
SHOOT 100 FREE THROWS IN SETS OF 10 USING THE PRE-DETERMINED
TRANSFER DESIGN FORMAT**

SET #1 NUMBER MADE	2 _____	1 _____	2 _____	2 _____	3 _____	TOTAL _____
SET #2 NUMBER MADE	1 _____	2 _____	2 _____	3 _____	2 _____	TOTAL _____
SET #3 NUMBER MADE	2 _____	2 _____	3 _____	2 _____	1 _____	TOTAL _____
SET #4 NUMBER MADE	2 _____	3 _____	2 _____	1 _____	2 _____	TOTAL _____
SET #5 NUMBER MADE	3 _____	2 _____	1 _____	2 _____	2 _____	TOTAL _____
SET #6 NUMBER MADE	2 _____	1 _____	2 _____	2 _____	3 _____	TOTAL _____
SET #7 NUMBER MADE	1 _____	2 _____	2 _____	3 _____	2 _____	TOTAL _____
SET #8 NUMBER MADE	2 _____	2 _____	3 _____	2 _____	1 _____	TOTAL _____
SET #9 NUMBER MADE	2 _____	3 _____	2 _____	1 _____	2 _____	TOTAL _____
SET #10 NUMBER MADE	3 _____	2 _____	1 _____	2 _____	2 _____	TOTAL _____
TOTAL: _____ OUT OF 100 PERCENTAGE _____						

PRACTICE SESSION #27

“THEY CAN BECAUSE THEY THINK THEY CAN”

INSTRUCTIONS:
SHOOT 100 FREE THROWS IN SETS OF 10 USING THE PRE-DETERMINED TRANSFER DESIGN FORMAT

SET #1	1	2	2	3	2	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #2	2	2	3	2	1	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #3	2	3	2	1	2	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #4	3	2	1	2	2	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #5	2	1	2	2	3	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #6	1	2	2	3	2	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #7	2	2	3	2	1	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #8	2	3	2	1	2	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #9	3	2	1	2	2	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #10	2	1	2	2	3	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
TOTAL: _____ OUT OF 100 PERCENTAGE _____						

PRACTICE SESSION #28

“SPECTACULAR ACHIEVEMENT IS ALWAYS PRECEDED BY SPECTACULAR PREPARATION”

**INSTRUCTIONS:
SHOOT 100 FREE THROWS IN SETS OF 10 USING THE PRE-DETERMINED
TRANSFER DESIGN FORMAT**

SET #1	2	2	3	2	1	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #2	2	3	2	1	2	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #3	3	2	1	2	2	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #4	2	1	2	2	3	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #5	1	2	2	3	2	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #6	2	2	3	2	1	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #7	2	3	2	1	2	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #8	3	2	1	2	2	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #9	2	1	2	2	3	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
SET #10	1	2	2	3	2	TOTAL
NUMBER MADE	_____	_____	_____	_____	_____	_____
TOTAL: _____ OUT OF 100 PERCENTAGE _____						

PRACTICE SESSION #29

“MOST BASKETBALL GAMES ARE LOST, NOT WON”

INSTRUCTIONS:
SHOOT 100 FREE THROWS IN SETS OF 10 USING THE PRE-DETERMINED TRANSFER DESIGN FORMAT

SET #1	2	3	2	1	2	TOTAL
NUMBER MADE	___	___	___	___	___	___
SET #2	3	2	1	2	2	TOTAL
NUMBER MADE	___	___	___	___	___	___
SET #3	2	1	2	2	3	TOTAL
NUMBER MADE	___	___	___	___	___	___
SET #4	1	2	2	3	2	TOTAL
NUMBER MADE	___	___	___	___	___	___
SET #5	2	2	3	2	1	TOTAL
NUMBER MADE	___	___	___	___	___	___
SET #6	2	3	2	1	2	TOTAL
NUMBER MADE	___	___	___	___	___	___
SET #7	3	2	1	2	2	TOTAL
NUMBER MADE	___	___	___	___	___	___
SET #8	2	1	2	2	3	TOTAL
NUMBER MADE	___	___	___	___	___	___
SET #9	1	2	2	3	2	TOTAL
NUMBER MADE	___	___	___	___	___	___
SET #10	2	2	3	2	1	TOTAL
NUMBER MADE	___	___	___	___	___	___
TOTAL:						
	___	OUT OF 100		PERCENTAGE	___	

PRACTICE SESSION #30 (POSTEST)

“OH, THE DIFFERENCE BETWEEN NEARLY RIGHT AND EXACTLY RIGHT”

INSTRUCTIONS:

SHOOT 100 FREE THROWS IN SETS OF 10 USING THE PRE-DETERMINED TRANSFER DESIGN FORMAT

SET #1	3	2	1	2	2	TOTAL
NUMBER MADE	___	___	___	___	___	___
SET #2	2	1	2	2	3	TOTAL
NUMBER MADE	___	___	___	___	___	___
SET #3	1	2	2	3	2	TOTAL
NUMBER MADE	___	___	___	___	___	___
SET #4	2	2	3	2	1	TOTAL
NUMBER MADE	___	___	___	___	___	___
SET #5	2	3	2	1	2	TOTAL
NUMBER MADE	___	___	___	___	___	___
SET #6	3	2	1	2	2	TOTAL
NUMBER MADE	___	___	___	___	___	___
SET #7	2	1	2	2	3	TOTAL
NUMBER MADE	___	___	___	___	___	___
SET #8	1	2	2	3	2	TOTAL
NUMBER MADE	___	___	___	___	___	___
SET #9	2	2	3	2	1	TOTAL
NUMBER MADE	___	___	___	___	___	___
SET #10	2	3	2	1	2	TOTAL
NUMBER MADE	___	___	___	___	___	___
TOTAL: ___ OUT OF 100 PERCENTAGE ___						

APPENDIX C

INSTITUTIONAL REVIEW BOARD
LETTER OF APPROVAL

OKLAHOMA STATE UNIVERSITY
INSTITUTIONAL REVIEW BOARD
HUMAN SUBJECTS REVIEW

Date: 05-30-98

IRB #: ED-98-118

Proposal Title: THE PARADOX OF THE FREE THROW

Principal Investigator(s): Steve Edwards, Jim Potet

Reviewed and Processed as: Expedited with Special Population

Approval Status Recommended by Reviewer(s): Approved

ALL APPROVALS MAY BE SUBJECT TO REVIEW BY FULL INSTITUTIONAL REVIEW BOARD AT NEXT MEETING, AS WELL AS ARE SUBJECT TO MONITORING AT ANY TIME DURING THE APPROVAL PERIOD.

APPROVAL STATUS PERIOD VALID FOR DATA COLLECTION FOR A ONE CALENDAR YEAR PERIOD AFTER WHICH A CONTINUATION OR RENEWAL REQUEST IS REQUIRED TO BE SUBMITTED FOR BOARD APPROVAL.

ANY MODIFICATIONS TO APPROVED PROJECT MUST ALSO BE SUBMITTED FOR APPROVAL.

Comments, Modifications/Conditions for Approval or Disapproval are as follows:

Parent approval has been requested. Student signature is not binding, necessary or required, however, it does no harm and does demonstrate an exposure to the intent of the project. There is no reason to delay the project.

Signature: 

Date: June 1, 1998

Chair of Institutional Review Board

cc: Jim Potet

APPENDIX D

INFORMED CONSENT FORM

Informed Consent Form

We invite you to participate in a study exploring a new technique for shooting free throws in a competitive environment. **Participation in this study involves attending 30 sessions of shooting 100 free throws. Each session will take approximately 30 minutes.**

Possible benefits of participating in this study include increased ability to shoot free throws in a competitive environment. We hope the results of this study will provide important information on teaching and learning as it pertains to the development of the ability to shoot free throws. There are no foreseeable risks of participating in this study. However, each subject will participate in very light physical activity.

Your participation is completely voluntary. If you choose to participate, please complete the rest of this form. There is no penalty for refusal to participate, and you are free to withdraw your consent and participation in this project at any time without penalty. Please notify the project director or the person on site if you choose to withdraw your participation during the study.

All of the scores which you provide the researchers are strictly confidential, and no individual participants will be identified in any reports generated by this research. Scores and results will be coded and tracked by identification numbers only.

We genuinely appreciate your participation in this study. If you have any questions regarding this research study, please feel free to contact Mr. Jim Poteet at 405-495-2405 or Dr. Steve Edwards in the School of Applied Health and Educational Psychology, 4th floor, Willard Hall at (405) 744-6037. You may also contact Gay Clarkson, University Research Services, Whitehurst Hall Room 305, Oklahoma State University, Stillwater, OK 74078; Telephone: (405) 744-5700.

"I have read and fully understand the consent form. I sign it freely and voluntarily. A copy has been given to me upon my request."

Date: _____ Time: _____

Signature of the participant: _____

Signature of parent/guardian: _____
(if participant is under 18 years old)

APPENDIX E

LETTER OF CONSENT FROM TOM AMBERRY



3833 PACIFIC AVENUE
LONG BEACH, CA 90807
310-424-2511

February 10, 1998

Mr. Jim Poteet
7404 N.W. 19th
Bethany, OK 73008

Dear Jim,

I am pleased that you are using the Amberry Method of free throw shooting in the research for your dissertation topic. It is an honor for me to be involved with your work.

Feel free to quote at length from my book, Free Throw. You may also use any of the material from the video. I am convinced that your research will substantiate what I have been teaching for the last three years about free throw shooting.

Thank you for your work and remember to make every free throw.

Sincerely,

Tom Amberry DPM
Tom Amberry, DPM

Dr. Tom Amberry, World Champion Free Throw Shooter-Guinness Book of Records-2750 in a row

2

VITA

James L. Poteet

Candidate for the Degree of

Doctor of Education

Thesis: THE PARADOX OF THE FREE THROW

Major Field: Applied Educational Studies

Biographical:

Personal Data: Born in Odessa, Texas, on January 9, 1941, the son of Jim and Alese Poteet.

Education: Graduated from Midland High School, Midland, Texas in May 1959; received Bachelor of Arts degree in Physical Education from Pasadena College, Pasadena, California in August 1963; received Master of Arts degree in Physical Education from California State University, Los Angeles, California in December 1965. Completed the requirements for the Doctor of Education degree with a major in Applied Educational Studies with an emphasis in Sport Administration at Oklahoma State University in May 1999.

Professional Memberships: National Association of Collegiate Directors of Athletics, National Association of Basketball Coaches, Association for the Advancement of Applied Sport Psychology.