Chapter I

Introduction

1.1 Background of the Study

Many developed countries like USA, Russia, Japan, China etc have made a drastic development in the field of sports. Only because of scientific development in sports they could achieve top level performance. They have worked in this through research and development and because of that the field is accepted by the society. Day by day participation in sports is increasing and many countries are taking part in sports competition and new records are created and are broken. It is only because of scientific development and new techniques, which are used in sports. At the same time basketball is also played at international level and it is found that it has achieved very high level of skills and techniques. Basketball is an international sport and there is hardly any corner of the globe left where people of all ages and sex have not been attracted by this game. This game involves fast movements, amazing accuracy and extraordinary finish. This game is of continuous thrill, attacks and counter attacks, which appeals the players as well as spectators.

Extensive research studies have been carried out on the physical built of basketball players (Bogdanis et al., 2007, Coleman et al., 1974; Gerzmer, 1978). In India the selectors although prefer to include the same factors while forming a basketball team, the results at an international level are significantly poor. In Maharashtra too as the game is making vast progress, the selectors or coaches must give importance to some other factors while composing a standard basketball team and. Since this study will evolve the skills and technique being used by the basketball player in the Competition.
1.2 About Basketball Game

Dr. James Naismith, Inventor of Basketball KU Basketball Program Founder

Dr. James Naismith is known worldwide as the inventor of basketball. He was born in 1861 in Ramsay Township, near Almonte, Ontario, Canada. The concept of basketball was born from Naismith's school days in the area where he played a simple child's game known as duck-on-a-rock outside his one-room schoolhouse. The game involved attempting to knock a "duck" off the top of a large rock by tossing another rock at it. Naismith went on to attend McGill University in Montreal, Quebec, Canada.

![Fig 1.1 James Naismith](source:www.bfi.com)

After serving as McGill's Athletic Director, James Naismith moved on to the YMCA Training School in Springfield, Massachusetts, USA in 1891, where the sport of basketball was born. In Springfield, Naismith was faced with the problem of finding a sport that was suitable for play inside during the Massachusetts winter for the students at the School for Christian Workers. Naismith wanted to create a game of skill for the students instead of one that relied solely on strength. He
needed a game that could be played indoors in a relatively small space. The first
game was played with a soccer ball and two peach baskets used as goals. Today
basketball has grown to become one of the world's most popular sports
Competitive basketball is primarily an indoor sport played on carefully marked
and maintained basketball courts, but less regulated variations are often played
outdoors in both inner city and rural areas.

1.3 History of the Game Basketball
Basketball, netball, dodge ball, volleyball, and lacrosse are the only ball games
which have been identified as being invented by North American. Other ball
games, such as baseball and Canadian football, have Commonwealth of Nations,
European, Asian or African connections. Although there is no direct evidence as
yet that the idea of basketball came from the ancient Mesoamerican ballgame,
knowledge of that game had been available for at least 50 years prior to
Naismith's creation, in the writings of John Lloyd Stephens and Alexander von
Humboldt. Stephens' works especially, which included drawings by Frederick
Catherwood, were available at most educational institutions in the 19th century
and also had wide popular circulations In early December 1891, Dr. James
Naismith, a Canadian-born physical education professor and instructor at the
International Young Men's Christian Association Training School (YMCA) (today,
Springfield College) in Springfield, Massachusetts, USA, was trying to keep his gym
class active on a rainy day. He sought a vigorous indoor game to keep his students
occupied and at proper levels of fitness during the long New England winters.
After rejecting other ideas as either too rough or poorly suited to walled-in
gymnasiums, he wrote the basic rules and nailed a peach basket onto a 10-foot
(3.05 m) elevated track. In contrast with modern basketball nets, this peach
basket retained its bottom, and balls had to be retrieved manually after each
"basket" or point scored; this proved inefficient, however, so the bottom of the
basket was removed,[a] allowing the balls to be poked out with a long dowel each
time. An association football was used to shoot baskets. Basketball was originally
played with an association football. The first balls made specifically for basketball
were brown, and it was only in the late 1950s that Tony Hinkle, searching for a
ball that would be more visible to players and spectators alike, introduced the
orange ball that is now in common use. Dribbling was not part of the original game except for the "bounce pass" to teammates. Passing the ball was the primary means of ball movement. Dribbling was eventually introduced but limited by the asymmetric shape of early balls. Dribbling only became a major part of the game around the 1950s, as manufacturing improved the ball shape. The peach baskets were used until 1906 when they were finally replaced by metal hoops with backboards. A further change was soon made, so the ball merely passed through. Whenever a person got the ball in the basket, his team would gain a point. Whichever team got the most points won the game. The baskets were originally nailed to the mezzanine balcony of the playing court, but this proved impractical when spectators on the balcony began to interfere with shots. The backboard was introduced to prevent this interference; it had the additional effect of allowing rebound shots.

![Image of an old basketball court](image.jpg)

**Figure 1.2: The First Basketball Court: Springfield College**

*Source: [www.basketball.com](http://www.basketball.com)*

The first official game was played in a YMCA gymnasium on January 20, 1892 with nine players. The game ended at 1–0; the shot was made from 25 feet (7.6 m), on a court just half the size of a present-day Streetball or National Basketball Association (NBA) court. By 1897–1898 teams of five became standard.
1.3.1 International Basketball

The International Basketball Federation was formed in 1932 by eight founding nations: Argentina, Czechoslovakia, Greece, Italy, Latvia, Portugal, Romania and Switzerland. At this time, the organization only oversaw amateur players. Its acronym, derived from the French Fédération Internationale de Basketball Amateur, was thus "FIBA". Men's Basketball was first included at the Berlin 1936 Summer Olympics, although a demonstration tournament was held in 1904. The United States defeated Canada in the first final, played outdoors. This competition has usually been dominated by the United States, whose team has won all but three titles, the first loss in a controversial final game in Munich in 1972 against the Soviet Union. In 1950 the first FIBA World Championship for men was held in Argentina.

Figure 1.3:
XX. Olympic games Munich 1972 Krešimir Ćosić of Yugoslavia (blue shirt) vs. Petr Novicky of Czechoslovakia

Source: wikipedia.org/wiki/Basketball
FIBA dropped the distinction between amateur and professional players in 1989, and in 1992, professional players played for the first time in the Olympic Games. The United States' dominance continued with the introduction of their Dream Team. However, with developing programs elsewhere, other national teams started to beat the United States. A team made entirely of NBA players finished sixth in the 2002 World Championships in Indianapolis, behind Yugoslavia, Argentina, Germany, New Zealand and Spain. In the 2004 Athens Olympics, the United States suffered its first Olympic loss while using professional players, falling to Puerto Rico (in a 19-point loss) and Lithuania in group games, and being eliminated in the semifinals by Argentina. It eventually won the bronze medal defeating Lithuania, finishing behind Argentina and Italy. In 2006, in the World Championship of Japan, the United States advanced to the semifinals but was defeated by Greece by 101–95. In the bronze medal game it beat team Argentina and finished 3rd behind Greece and Spain. After the disappointments of 2002 through 2006, the U.S. regrouped, reestablishing themselves as the dominant international team behind the "Redeem Team", which won gold at the 2008 Olympics, and the so-called "B-Team", which won gold at the 2010 FIBA World Championship in Turkey despite featuring no players from the 2008 squad.

1.3.2 Basketball in India

Basketball in India is played in most of the high schools, colleges and universities and especially the younger generation like to play this game. The game of basketball in India is played by both men and women of all ages and ability. Many government institutions have professional basketball teams, who work for the institution and play for them: ONGC in Uttaranchal, Indian Overseas Bank in Tamilnadu, Indian Bank in Karnataka, Mahanagar Telephone Nigam Limited in New Delhi, Indian Railways, and Kerala Electricity Board play for their respective institution and state. There are many championships for senior, junior and youth levels for boys and gals. Invitational all-India tournaments like Master Prithvinath Memorial (New Delhi), Don Bosco Invitational Tournament (Mumbai), Ramu Memorial (Mumbai), and many other tournaments in the southern part of India are being organized every year. Unlike many other countries like America, Russia, China, and Japan, basketball in India does not follow seasons. Indian basketball
has championships throughout the year for different age groups. The main purpose of doing that is availability of youth. Championship for youth is mainly organized between May to July when children are having summer break from school. Being one of the earliest countries to adopt basketball, India has so far produced numerous talented basketball players, who have earned recognition and reputation in the international arena. Indian basketball players have also won several trophies for their country. There are several basketball players in India, who have been honored by the government of India through the prestigious Arjuna Award and Dhyanchand Awards. Hence, the number of Arjuna awardees in basketball is quite huge. Basketball in India is mainly being run and managed by a large number of national and state level associations, spread all over India. The Indian basketball associations are working with a common view of spreading the game in all parts of the country. Apart from that, developing the overall condition of the game and bringing up new talents from the grass route level are also some of the other principal objectives of the Indian basketball associations.

**JD Walsh Basketball School in India**

American basketball coach [JD Walsh], a former player for the University of Maryland, College Park and current basketball coach, first came to India in 2007 to operate a social program Child Nurture and Relief (CHINAR), an organization that runs an orphanage in Srinagar, Kashmir. They invited Walsh to visit and conduct a social program to aid in the psychosocial rehabilitation of the youth, and from this, Hoops for Health was born. This three-year program has won the Nike Sport for a Better World/Change maker’s award for work with at-risk youth. Simultaneously, a young man wrote a note expressing his dream to become the first Indian in the NBA. In June 2007, Walsh agreed to visit Pune and show his skills and work with him and his club, Deccan Gymkhana. Walsh ran by some accounts (Times of India: May 28, 2007) the first ever American-style basketball camp in India for the two hundred participants in Pune (Fergusson College), sponsored by the Maharashtra State Basketball Association.

In May 2009, J D BASKETBALL ran clinics in Mumbai, Chennai, Delhi (Delhi Public School), and Punjab Patiala Netaji Subhas National Institute of Sports (NSNIS) with famous Indian coach, Ramesh Kelley. The Mumbai clinic sponsored by the
Basketball Federation of India was held for over 700 in attendance at the Youth National Championships in Nagpada, Mumbai (May 14, 2009).

1.4 Rules and Regulations of Basketball

Measurements and time limits discussed in this section often vary among tournaments and organizations; international and NBA rules are used in this section. The object of the game is to outscore one's opponents by throwing the ball through the opponents' basket from above while preventing the opponents from doing so on their own. An attempt to score in this way is called a shot. A successful shot is worth two points or three points, if it is taken from beyond the three-point arc which is 6.25 meters (20 ft 6 in) from the basket in international games and 23 feet 9 inches (7.24 m) in NBA games. A one-point shot can be earned when shooting from the foul line after a foul is made.

1.4.1 Playing Regulations

Games are played in four quarters of 10 min (FIBA) rules Overtime periods are five minutes in length except for high school which is four minutes in length. Teams exchange baskets for the second half. The time allowed is actual playing time; the clock is stopped while the play is not active. Therefore, games generally take much longer to complete than the allotted game time, typically about two hours. Five players from each team may be on the court at one time. Substitutions are unlimited but can only be done when play is stopped.

Teams also have a coach, who oversees the development and strategies of the team, and other team personnel such as assistant coaches, managers, statisticians, doctors and trainers. For both men's and women's teams, a standard uniform consists of a pair of shorts and a jersey with a clearly visible number, unique within the team, printed on both the front and back. Players wear high-top sneakers that provide extra ankle support. Typically, team names, players' names and, outside of North America, sponsors are printed on the uniforms.

Violations

The ball may be advanced toward the basket by being shot, passed between players, thrown, tapped, and rolled or dribbled (bouncing the ball while running). The ball must stay within the court; the last team to touch the ball before it
travels out of bounds forfeits possession. The ball is out of bounds if touches or crosses over a boundary line, or touches a player who is out of bounds.

The ball-handler may not move both feet without dribbling, an infraction known as traveling, nor may he dribble with both hands or catch the ball in between dribbles, a violation called double dribbling. A player’s hand cannot be under the ball while dribbling; doing so is known as carrying the ball.

A team, once having established ball control in the front half of the court, may not return the ball to the backcourt and be the first to touch it. The ball may not be kicked, nor be struck with the fist. A violation of these rules results in loss of possession, or, if committed by the defense, a reset of the shot clock (with some exceptions in the NBA).

There are limits imposed on the time taken before progressing the ball past halfway (8 seconds in FIBA and the NBA; 10 seconds in NCAA men’s play and high school for both sexes, but no limit in NCAA women’s play), before attempting a shot (24 seconds in FIBA and the NBA, 30 seconds in NCAA women’s and Canadian Interuniversity Sport play for both sexes, and 35 seconds in NCAA men’s play), holding the ball while closely guarded (5 seconds), and remaining in the restricted area below the foul line (the lane, or "key") (3 seconds). These rules are designed to promote more offense.

No player may touch the ball on its downward flight to the basket, unless the ball has no chance of entering the basket (goaltending). In addition, no player may touch the ball while it is on or in the basket; when any part of the ball is in the cylinder above the basket (the area extended upwards from the basket); or when the ball is outside the cylinder, if the player reaches through the basket and touches it. This violation is known as "basket interference". If a defensive player goal tends or commits basket interference, the basket is awarded and the offending team gets the ball. If a teammate of the shooter goal tends or commits interference, the basket is cancelled and play continues with the defensive team being given possession.

1.4.2 The Basketball Equipment and the Court

The only essential equipment in a basketball game is the basketball and the court: a flat, rectangular surface with baskets at opposite ends. Competitive levels
require the use of more equipment such as clocks, score sheets, scoreboard(s), alternating possession arrows, and whistle-operated stop-clock systems.

A regulation basketball court in international games is 28 meters (91.9 ft) long and 15 meters (49.2 ft) wide. In the NBA and NCAA court is 94 feet (28.7 m) by 50 feet (15.2 m). Most courts have wooden flooring, usually constructed from maple planks running in the same direction as the longer court dimension.\(^{[39]}\) The name and logo of the home team is usually painted on or around the center circle.

The basket is a steel rim 18 inches (45.7 cm) in diameter with an attached net affixed to a backboard that measures 6 feet (182.9 cm) by 3.5 feet (106.7 cm), and one basket is at each end of the court. The white outlined box on the backboard is 18 inches (45.7 cm) high and 2 feet (61.0 cm) wide. At almost all levels of competition, the top of the rim is exactly 10 feet (305 cm) above the court and 4 feet (121.9 cm) inside the baseline. While variation is possible in the dimensions of the court and backboard, it is considered important for the basket to be of the correct height — a rim that is off by just a few inches can have an adverse effect on shooting.

The size of the basketball is also regulated. For men, the official ball is 29.5 inches (74.9 cm) in circumference (size 7, or a "295 ball") and weighs 22 ounces (624 g). If women are playing, the official basketball size is 28.5 inches (72.4 cm) in circumference (size 6, or a "285 ball") with a weight of 20 ounces (567 g).

![Figure 1.4: Traditional eight-panel basketball](source:wikipedia.org/wiki/Basketball)
Figure 1.5: The Basketball Court

Source: basketball_court_layout.com
1.4.3 Positions

Although the rules do not specify any positions whatsoever, they have evolved as part of basketball. During the first five decades of basketball’s evolution, one guard, two forwards, and two centers or two guards, two forwards, and one center were used. Since the 1980s, more specific positions have evolved.

![Figure 1.6: Basketball positions in the offensive zone](source: https://en.wikipedia.org/wiki/basketball)

**Point Guard:** usually the fastest player on the team organizes the team’s offense by controlling the ball and making sure that it gets to the right player at the right time.

**Shooting Guard:** creates a high volume of shots on offense; guards the opponent’s best perimeter player on defense.

**Small Forward:** often primarily responsible for scoring points via cuts to the basket and dribble penetration; on defense seeks rebounds and steals, but sometimes plays more actively.

**Power Forward:** plays offensively often with their back to the basket; on defense, plays under the basket (in a zone defense) or against the opposing power forward (in man-to-man defense).
Center: uses height and size to score (on offense), to protect the basket closely (on defense), or to rebound.

The above descriptions are flexible. On some occasions, teams will choose to use a three guard offense, replacing one of the forwards or the center with a third guard. The most commonly interchanged positions are point guard and shooting guard, especially if both players have good leadership and ball handling skills.

Several offensive plays planned to ensure their movement is not predictable. On court, the point guard is usually responsible for indicating which play will occur. Defensive and offensive structures, and positions, are more emphasized in higher levels in basketball; it is these that a coach normally requests a time-out to discuss.

1.5 Offensive Skill in Basketball

1.5.1 Shooting the Basketball

Player releases a short jump shot, while her defender is either knocked down, or trying to "take a charge."

Shooting is the act of attempting to score points by throwing the ball through the basket. Methods can vary with players and situations. Typically a player faces the basket with both feet facing the basket. A player will then allow the ball to rest on the fingertips of the dominant hand (the shooting arm) slightly above the head, with the other hand supporting the side of the ball. The ball is typically shot by jumping (though not always) and straightening the shooting arm. The shooting arm, fully extended with the wrist fully bent is held stationary for a moment following the release of the ball, known as a follow-through. Players often try to put a steady backspin on the ball to deaden its impact with the rim. The ideal trajectory of the shot is somewhat arguable, but generally coaches recommend a proper arch. Players may shoot directly into the basket or may use the backboard to redirect the ball into the basket.
Figure 1.7: Shooting the Basketball

Source: wikipedia.org/wiki/Basketball
1.5.2 Lay-Up Shot

This shot requires the player to be in motion toward the basket, and to "lay" the ball "up" and into the basket, typically off the backboard (the backboard-free, underhand version is called a finger roll). The most crowd-pleasing and typically highest-percentage accuracy shot is the slam dunk, in which the player jumps very high and throws the ball downward, straight through the hoop. Another shot that is becoming common is the "circus shot." The circus shot is a low-percentage shot that is flipped, heaved, scooped, or flung toward the hoop while the shooter is off-balance, airborne, falling down, and/or facing away from the basket. A shot that misses both the rim and the backboard completely is referred to as an air ball. A layup is simply a short range shot that usually hits gently off the backboard. Most of the time layups are performed while running towards the basket. To shoot a proper layup you must have your hands and in the correct position. If you are shooting on the left side of the basket, you would shoot with your left hand, jumping off your right foot and vice versa. If you are dribbling towards the basket you stop dribbling until you are about 2 feet from the basket. You then pick up the ball, take one or two more steps and gently bounce the ball against the square on the backboard before you take your third step (that would be a violation). It is not the ordinary shooting method because you do not have a helper hand there to guide, it is more of a one handed shot. The way you would do it would be to have your palm underhand and then with the speed and momentum that you have collected from dribbling let it hit off the backboard.
Fig 1.8 Player taking a layup shot
Source: wikipedia.org/wiki/Basketball
1.5.3 Field Goal Jump Shot

In basketball jump shot is an attempt to score a basket by jumping, usually straight up, and in mid-jump, propelling the ball in an arc into the basket. It is accomplished by the player bringing his or her elbow up until it is aligned with the hoop, then sent towards the hoop in a high arc. It is considered the easiest shot to make from a distance. The purposes of the jump are to make it more difficult for the defender to block, and to put more power behind the shot. It is also usually accomplished with one hand by the NBA players. It is the most effective in open play but can prove to be hard when there is a taller player in front of you. Debate still continues as to who invented the jump shot. In his book *The Origins of the Jump Shot*, author John Christgau makes a strong case that it was Ken Sailors in May 1934. Sailors went on to play for the University of Wyoming and was selected as MVP of their 1943 NCAA Championship team. Sailors also played for five different teams in the old American Basketball League. Other people that Christgau credits with the jump shot are Glen "Glenn" Roberts, Myer "Whitey" Skoog, John "Mouse" Gonzales, Bud Palmer, Davage "Dave" Minor, "Jumping" Joe Faulks, Johnny Adams, and Belus Van Smawley. Today, the jump shot has many varieties, such as the "turnaround jumper" (facing away from the basket, then jumping and spinning towards it, shooting the ball in mid-air); the "fade away" (jumping away from the basket to create space); and the "leaning jumper" (jumping towards the basket to move away from a trailing defender).
Figure 1.9: Field Goal Jump Shot
Source: wikipedia.org/wiki/Basketball
1.5.4 Field Goal Set Shot

There are several skills that enable you to score in a basketball game. You can score by performing the basic basketball set-shot. Let’s take a close look at various basketball shooting skills. Basic basketball shot - Set shot.

The basic basketball shot is simple and beautiful but by no means simplistic. As pointed out previously, everyone shoots the basketball differently. Yet, there is a general procedure that all good basketball shooters more or less follow.

- Half-bent your knees before shooting a basketball for more potential power
- Your dominant hand should have its fingers spread out
- Only the fingertips should be gripping onto the ball
- Your other hand should support the ball on the side
- The ball should be brought above the head in one motion
- At this point, the angles at your armpit, elbow, and wrist is at 90 degrees
- While extending your knees, extend your forearm and snap your wrist
- Make sure you follow through with your wrist movement.

![Figure1.19: Field Goal Set Shot](https://wikipedia.org/wiki/Basketball)
1.5.5 Three Point Jump Shot

A three-point field goal (also known as three-pointer) is a field goal in a basketball game, made from beyond the three-point line, a designated arc radiating from the basket. A successful attempt is worth three points, in contrast to the two points awarded for shots made inside the three point line. A three-point field goal is distinguished from a "three-point play" or an and-1, which occurs when a shooter successfully scores a two-point basket while being fouled, and then makes the ensuing free throw. If such a foul occurs on a successful three-point shot, the resulting free throw gives the player a chance to earn a four-point play. Three-point field goal percentage is a measure of three-point shooting accuracy calculated by the ratio of three-point field goals made to three-point field goals attempted.

![Figure 1.11: Three Point Jump Shot](https://wikipedia.org/wiki/Basketball)

Source: wikipedia.org/wiki/Basketball
1.5.6. Three Point Set Shot
The three-point line generally consists of an arc at a set radius measured from the point on the floor directly below the center of the basket, and two parallel lines equidistant from each sideline extending from the nearest end line to the point at which they intersect the arc. A player's feet must be completely behind the three-point line at the time of the set shot to make a three-point attempt; if the player's feet are on or in front of the line, it is a two point attempt. A player is allowed to jump from outside the line and land inside the line to make a three-point attempt, as long as the ball is released in mid-air. An official raises his arm with three fingers extended to signal the shot attempt. If the attempt is successful, he or she raises his other arm with all fingers fully extended in manner similar to a football official signifying successful field goal to indicate the three-point goal. The official must recognize it for it to count as three points. If a shooter is fouled while attempting a three-pointer and subsequently misses the shot, the shooter is awarded three free-throw attempts. If a player completes a three-pointer while being fouled, the player is awarded one free-throw for a possible 4-point play.

Figure 1.12: Three Point Set Shot
Source: wikipedia.org/wiki/Basketball
1.5.7 Collection Shot

Collection shot are usually taken after the attempt are made, and they are not succeeded than the player collect the ball and again they go for the shots. These type of shots are usually taken from low post and high post.

![Figure 1.13: Collection Shot](Source:wikipedia.org/wiki/Basketball)
1.5.8 Fast Break

Fast break is an offensive strategy in sports. In a fast break, the offense outnumbers the defense on a drive to score. There are various styles of the fast break and the fast break attack is the best method of providing action and quick scores.

Figure 1.14: Player taking a Fast Break

Source: wikipedia.org/wiki/Basketball
1.5.9 Foul Shot

Foul shot is an offensive strategy in Basketball. In a foul shot, in the offense Movement which are usually attempted from the low post, were the player get the advantage of basket counted and a free throw is being awarded to the shooter, who have converted the basket.

Fig 1.15 Player taking a foul shot.

Source: www.basketball.com
1.5.10 Drive

The one-hand driving shot is most important shot in fast break basketball; therefore, it is the most fundamental part of shooting because most scoring of the fast break comes from this shot. Approaching the basket from the right side teach the shooter to grasp the ball in both hands as his right foot hits the floor, keeping the body between the ball and defender. (When approaching the basket from the left side, reverse the technique.) Teach them to jump as high as they can, keeping eye contact with a spot six inches above, and slightly right of the basket, where he should place the ball. Come down hard on the left foot, and propel sharply upward with the right knee, carrying the ball in both hands as high as possible with the right hand behind the ball, wrist cocked and facing the basket, and the left hand in front, wrist away from the basket. This last step is a shorter step that enables the shooter to convert his forward motion into vertical jumping thrust. At the top of the high jump, with both arms above your head erect, eyes fixed on a spot high above and to the right of the basket, allow the left hand to fall away. Your right arm, wrist, and fingers extend to place the ball against the sighted point in a motion similar to that of trying to grasp the rim from a running start without the ball. The backboard should be used for lay-ups approached from the side. After completing his follow-through, the shooter lands with hips down, knees bent, and body weight low, ready to rebound, or go on defense. If you have your players follow this form constantly in practice, they will learn to make the shot automatically.
Figure 1.16: Drive

Source: wikipedia.org/wiki/Basketball
1. 5.11 Free Throw

In basketball, free throws or foul shots are unopposed attempts to score points from a restricted area on the court (the free throw line; informally known as the foul line), and are generally awarded after a foul the shooter by the opposing team. Each successful free throw is worth one point.

The first and most common is when a player is fouled while in the act of shooting. If the foul causes the player to miss the shot, the player receives two or three free throws depending on whether the shot was taken in front of or behind the three point line. If, despite the foul, the player still makes the attempted shot, the number of free throws is reduced to one, and the basket counts. This is known as a three-point or four-point play, depending on the value of the made basket. Commentators sometimes refer to a successful three-point play as "an old-
fashioned three-point play", "a three pointer the hard way" because before the advent of the three-point shot, this was the only way to earn three points on one play, or "And 1", because they made the shot and will get one free throw. The second is when the fouling team is in the team bonus (or foul penalty) situation. This happens when, in a single period, a team commits a set number of fouls whether or not in the act of shooting. In the NBA, the limit is four fouls per quarter; starting with the fifth foul, or the second in the final 2 minutes if the team has less than five fouls, the opposing team gets two free throws. In NCAA basketball, beginning with the seventh foul of the half, one free throw is awarded; if the player makes the free throw, another is given. This is called shooting "one-and-one". Starting with the tenth foul of the half, two free throws are awarded. Free throws are not awarded for offensive fouls (most often charging fouls), even if the team fouled is in the bonus. If a player is injured upon being fouled and cannot shoot free throws, the offensive team may designate any player from the bench to shoot in the place of the injured player in college; in the NBA, the opposing team designates the player to shoot, and the injured player can't return, unless the foul committed was a flagrant-2, in which case the player's own team also gets to pick the replacement shooter. If a player fouled takes exception to the foul, and starts or participates in a fight, and gets ejected, he or she is not allowed to take his or her free throws, and the opposing team will choose a replacement shooter. In all other circumstances, the fouled player must shoot his or her own foul shots.

If a player, coach, or team staff (e.g. doctor, statistician) shows poor sportsmanship, which may include arguing with a referee, that person may get charged with a more serious foul called a technical foul. In the NBA, a technical foul results in one free throw attempt for the other team. In FIBA play, a technical foul results in two free throws if the offending individual is playing on the court and two free throws if he or she is on the bench. In NCAA basketball, technical fouls result in two free throws in all situations. At both levels, the opposing team may choose any player who is currently on the court to shoot the free throws, and is then awarded possession of the ball after the free throws. Since there is no
opportunity for a rebound, these free throws are shot with no players on the lane.

Finally, if a referee deems a foul extremely aggressive, or that it did not show an attempt to play the ball, the referee can call an even more severe foul, known as an unsportsmanlike or intentional foul. This foul is charged against the player (and depending on the severity of the offense, can even be ejected), and the opponent gets two free throws and possession of the ball afterwards. Unlike technical fouls, the player fouled must shoot the awarded free throws. Fouls "away from the ball" (fouls that do not occur on the shooter or near the ball) are handled like the second case above in most situations. Many times defenders hold their opponent to prevent them from catching an in-bound pass or fight through screens and thus are called for fouls. These fouls are almost always treated as normal personal fouls. In the NBA, when there are only two minutes left on the clock of either half, off-ball fouls when the fouling team is over the limit are rewarded with one free throw and possession of the ball. It is therefore common for a losing team to deliberately single out its opponent’s poor free-throwers, regardless of their dominance in other aspects of the game (as in the cases of Ben Wallace and of Shaquille O’Neal), as the targets of deliberate fouls until the two-minute mark, after which the losing team plays intense defense for the rest of the game (see Hack-a-Shaq). It is believed that this rule was instituted because of Wilt Chamberlain. Previously teams had been allowed to foul any player on the court regardless of whether that player had possession of the ball, with only two free throws awarded to the fouled player. This motivated teams to chase poor free-throw shooters, such as Chamberlain, around the court in attempt to foul him in an effort to extend the game. To discourage this practice, the NBA changed the rule to award one free throw and possession of the ball to a player who is fouled away from the ball in the last two minutes of the fourth quarter. This rule does not apply in international or NCAA plays and in fact plays a very vital strategic role in the NCAA Tournament.
Free throws are organized in procession. The shooter takes his place behind the free throw line (19 feet from the base line, 15 feet from the basket). All other players must stand in their correct places until the ball leaves the shooter’s hands: Three people from the defensive team and two people from the shooting team line up along the sides of the restricted area (keyhole, paint, and lane). These players are usually the ones that rebound the ball. Three line up on one side and two on the other. A defensive player always takes the place closest to the basket.
The remaining four players, two from each team, must remain behind the three point line and the free throw line extended (an imaginary line extended from the free throw line in both directions to the sidelines). Leaving their designated places before the ball leaves the shooter’s hands, interfering with the ball, are all violations. In addition, the shooter must release the ball within five seconds (ten seconds in the United States) and must not step on or over the free throw line until the ball touches the ring. Players are, however, permitted to jump while attempting the free throw, provided they do not leave the designated area at any point. A violation by the shooter cancels the free throw; a violation by the defensive team results in a substitute free throw if the shooter missed; a violation by the offensive team or a shot that completely misses the ring results in the loss of possession to the defensive team (only if it is on the last free throw).

Penalty applies to fouls in excess of four in a regulation period or in excess of three in an overtime period. If a team has not committed its foul quota by the two minute mark of a period, it shall be allowed one foul before the penalty applies. Defensive fouls committed during a throw-in prior to the ball being released result in two free throws regardless of the penalty situation. The technical foul penalty of one free throw and the ball applies.

![Fig1.19 Legal Entry for Free Throw](https://wikipedia.org/wiki/Basketball)
1.5.12 Pivot

Pivot shot is usually used from zone in basketball pivot shot - a one-handed basketball shot made while whirling on the pivot foot basketball shot - throwing the basketball toward the hoop; "his shot hit the rim and bounced out"

a. A position taken by an offensive player usually facing away from the basket near the foul line to relay passes, attempt a shot, or set screens.

b. The stationary foot around which the ball handler is allowed to pivot without dribbling.

1.5.13 Dunk

A slam dunk is a type of basketball shot that is performed when a player jumps in the air and manually powers the ball downward through the basket with one or both hands over the rim.[1] This is considered a normal field goal attempt; if successful it is worth two points. The term "slam dunk" was coined by Los Angeles Lakers announcer Chick Hearn.[2] Prior to that, it was known as a dunk shot. The slam dunk is one of the highest percentage shots one can attempt in basketball as well as one of the most crowd-pleasing plays. Slam dunks are also performed as entertainment outside of the game, especially during slam dunk contests. Perhaps the most popular such contest is the NBA Slam Dunk Contest held during the annual NBA All-Star Weekend. The first slam dunk contest was held during an American Basketball Association All Star Game. Dunking was banned in the NCAA from 1967 to 1976. Many have attributed this to the dominance of the then-college phenomenon Lew Alcindor (now called Kareem Abdul-Jabbar) upon his entry into the NCAA. Subsequently, the no-dunking rule is sometimes referred to as the "Lew Alcindor rule." The phrase "slam dunk" has since entered popular usage, meaning a "sure thing" – an action with a guaranteed outcome.

Olympic Gold Medalist Bob Kurland was a 7-foot center and the first player to regularly dunk during games in the 1940s and 50's. Wilt Chamberlain was known to have dunked on an experimental 12-foot basket set up by Phog Allen at the University of Kansas in the 1950s. Michael Wilson, a former Harlem Globetrotter
and University of Memphis basketball player, matched this feat on April 1, 2000 albeit with an alley-oop. Dwight Howard dunked on a 12 ft basket in the 2009 NBA dunk contest also off an alley-oop.

A Slam Dunk

Julius Erving Performing a Slam Dunks in 1981

Figure 1.18: The Dunk Shot

Source: wikipedia.org/wiki/Basketball
1.6 Defensive Skill in Basketball

1.6.1 2–3 Zone Defense

The widespread use of the 2–3 Zone is likely due to its somewhat intuitive operation. The two players on the top of the zone are usually a team’s guards, and they guard the zones closest to them on the perimeter and three-point arc. In the same way, a team’s forwards guard the sides of the zone and its center guards the lane and center of the defense. As the opposing team moves with the basketball around the court, the zone as a whole shifts accordingly.

The individuals that make up 2–3 zone are often described as “being on a string.” This means that as one player moves, he pulls the imaginary string (which is attached to every defensive player) and therefore pulls the entire defense in that same direction. As the ball moves throughout the court, every player should shift simultaneously in the direction of the ball. When a player in the zone is shifting, that player should look to fill in gaps of space vacated by other shifting players and also guard offensive players in that space. For example, if a player with the ball stood on the right wing (beyond the three point arc), defensive players 1 and 2 would shift towards that direction. To effectively operate the 2–3 zone, a defense must move as a whole. In this case, that would mean every defensive player shifting around 5 to 6 feet in the direction of the right wing and the player with the ball. Similarly, if that player moved to the right corner, the 4 player would move to guard him and the rest of the defense would shift towards that direction. So much so, in fact, that ideally no defensive players should be on the left side of the court at all, because it would require several passes or a long pass through the defense to get the ball to the left side.
Key Points of Emphasis for 2-3 Zone Defense

- **Communicate:** this is probably the most important thing to remember when playing a 2–3 Zone. Players should talk to each other on the court about the one who is open, who should be where, what to do, and everything else worth knowing. The team must work together, and the best way to do so is to communicate with each other on the floor.

- Players should anticipate the next pass before it happens, so that when it does, each person knows where to go on the floor and fewer breakdowns happen.

- Although it is a zone defense, players should always be aware of the offensive players' locations on the floor. It is more important to guard an open player than stay within the normal constraints of the zone.

- Offensive players closer to the basket take priority. The defense begins at the basket and radiates outwards—the idea is to force the offense to take shots from the perimeter and prevent access to the basket and surrounding area.
Strengths of the 2–3 zone
The 2–3 zone is a very effective defense when executed properly. This defense's strong suits include:

- **Forcing outside shots** - it generally holds true that as players get further away from the basket, their chances of scoring decrease. The 2–3 essentially fills the middle of the court and is very effective at preventing penetration into the lane and heart of the defense, leaving the perimeter as an offense's most accessible option.

- **"Hiding" poor defensive players** - because the 2–3 zone is so team-oriented, players who are less effective defensively are less likely to be exploited by the offense. It is very difficult to target just one defensive player in the 2–3 because the zone is always shifting and players work together. Similarly, using a 2–3 more evenly distributes fouls throughout the players on defense, meaning foul-prone players are less likely to accumulate many fouls or foul out.

- **Slowing the game (Gibson)** - because the 2–3 often guards the interior of the court well, offenses generally pass the ball around the perimeter frequently before attempting to penetrate the defense or initiate an offense. As a result, it takes longer for an offense to take a shot, and therefore slows the tempo of the game. Therefore hypothetically defensive players have more time to catch their breath as a result. Also players exert somewhat less energy in a zone than in man-to-man since they often cover less ground while playing defense.

- **Fewer offensive plays** - there are far fewer zone offenses than there are man-to-man offenses to prepare for as a defense. As a result, defenses often have a better idea of what to expect from the offensive team when playing a zone defense.

Weaknesses of the 2–3 zone
On the other hand, there are many reasons why many coaches prefer not to use the zone. Its strengths can easily become its weaknesses, which include:

- **Perimeter scoring** - because the 2–3 zone often leaves some parts of the perimeter wide open for the opposing offense's long-range shooters, offenses that excel at 3-point shots and mid-range jump shots always have a chance to
keep the score even (or, to build large leads). This is probably the 2–3's most obvious Achilles' heel.

- **Playing from behind** - teams that are losing rarely use the 2-3 zone because it gives the opposing offense ample time -- and space -- to repeatedly pass the ball around the perimeter, reducing the amount of time left in the game.

- **Rebounding** - in man-to-man defense, defensive players know who to "block out" if the shot misses, and an offensive rebound's attempted; each defender covers the individual offensive player they're assigned to personally defend. However, in the 2–3 zone, defensive players do not guard individuals, only areas of the court (zones); so, it is more difficult to quickly and accurately assess where the offensive players are, and which defensive players are supposed to block them out. As a result, 2–3 zones often yield more rebounds for the opposing offense, which can tire out a defense, and/or put them far behind in scoring.

- **Gaps in the zone** - there are a few areas on the court that often cause breakdowns in the 2–3 zone, especially at the high-post area. The high post/free throw line area (i.e., the center of the 2–3 zone) is often a weak spot in the zone that is exploited by the offense. Multiple defensive players tend to "collapse" (i.e., converge at once) on an offensive player who has the ball in this part of the zone, leaving other offensive players unguarded on the wings, blocks, and/or baseline areas.

- **Degree of difficulty** - because the 2–3 zone relies so heavily on well-timed teamwork, each individual player must know exactly where to be at all times. Because a zone defense is more complex than simply following one player always following his counterpart around the court, there is a higher probability that at least one defensive player will forget which opposing player he/she was assigned to guard. Players must be extremely practiced and knowledgeable to run a 2–3 zone correctly.
1.6.2 1–3-1 Zone Defense

The defensive usage of the 1-3-1 is mostly used to create turnovers, not for protecting the paint, due to only having one player down low. They usually have two guards to double team the ball carrier.

Another variation of the 1-3-1 defense is the full court press version. The lead guard will pressure the ball in the backcourt, and also can shade over to the side and form a 2-man trap with a defensive player in the 3-set when an offensive guard tries to bring up the ball down the sideline.

One effective press-break against the 1-3-1 full court press is to have either the power forward or the center to flash to midcourt and then quickly pass the weak side guard running down the sideline, not allowing the trap to be formed. There are multiple ways to approach defense in the sport of basketball. Typically they are divided into man defenses and zone defenses. The 1-3-1 zone defense is a zone defense. It falls under this category because each player guards a specific zone within the formation. This defense is named for its formation. A picture of the formation is shown on the right. In basketball positions are numbered from one to five. One and two are guards, three and four are forwards, and five is the
center in a typical basketball lineup. Guards are quick and typically are good ball handlers and shooters. Forwards usually are the most athletic and are typically taller than the guards. The center is the tallest player and specializes in close vicinity to the basket.

**Formation**

In this formation, the one will take the top and meet the oncoming offensive guard. The two and three positions are split out on the edges of the court at free throw level, or on the wing. The four position is down beneath the basket and acts as a rover along the base line. The rover position is typically the best athlete's position since there is the most area to defend around the basket. The five position is posted in the center of the formation at about free throw level.

**Zone Responsibilities**

The goal of the 1-3-1 zone defense is to create turnovers. This defense focuses extra pressure on the ball handler and will exert more effort to force turnovers. Turnovers within this defense are created by a couple key features of this strategy. Two defensive players will try to trap the ball handler in one of the corners of the half court. In basketball the ball can only be held for five seconds before passing, shooting, or dribbling. If a player is trapped in the corner they tend to stop their dribble before making a decision to pass or shoot. This creates a problem for the offense but is exactly what the defense wants to happen. When a player is double teamed without their dribble they tend to make poor decisions. Often bad passes and shots are forced out by the player just to get the ball out of the corner. It is vital for players not guarding the ball handler to anticipate a bad pass or shot in order to make a steal or get a rebound. This will help create the most turnovers. Each player will have their own responsibility in the zone. They each have their own area to guard on the court. Players will also shift as the ball is moved to be in better defensive position. This means moving to a better location to cut off passes and gather rebounds. Typically, the one will take the top position. They will meet the ball handler and force them in one direction while playing close defense. Based on the direction the ball handler dribbles the defender on the wing, either the two or three position, will close in on the ball handler for a double team. The intention is to force a double team quickly and
drive the offensive player into a corner of the court. The double team creates a lot of free space on the court. The other three players must shift to cover this area equally during a trap. A trap can be made at any of the four corners both at the base line and at half court. The only difference is the base line is defended by the rover and they will trap with the wing instead of the one position. By forcing these double teams the offense will make long cross court passes. These passes are more likely to get stolen because they are less accurate and travel in the air longer. More space is open during a double team so the defenders not trapping must take advantage of the long passes and force any possible turnovers.

1.6.3 1–2-2 Zone Defense

![Diagram A. 1-2-2 Zone Defense Setup](source: www.basketball.ZoneDefense)

Fig 1.21 1-2-2 Zone Defense


Strength of 1–2-2 Zone Defense

The 1-2-2 zone has the advantages of being able to pressure the ball on the outside arc, allow for some trapping, and can be effective against a good outside shooting team (whereas the 2-3 zone is more effective against inside scoring).

Weaknesses of 1–2-2 Zone Defense

The major weaknesses are the (1) high post area, and (2) this defense can be attacked from the corners. Study the diagrams to understand how the zone shifts, or moves, and see the animation also.
1.6.4 3-2 Zone Defense

3-2 (1-2-2) zones are commonly used to defend teams with good outside shooting and/or weaker post players. You can also use it as a trapping defense.

Youth Coaches: Even though, you CAN win more games, AVOID playing any type of zone defense, because it can teach bad habits and hinder the long-term development of your players. Our advice would be to focus on Man to Man Defense. If you would like to read a detailed explanation of why we advise youth coaches to avoid zone defenses,
1.6.5 2-1-2 Zone Defense

Zones are commonly used to defend teams with good outside shooting and/or weaker post players. You can also use it as a trapping defense.

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![2-1-2 Zone Defense Diagram](www.basketball_ZoneDefense)

1.6.6 Man-to-Man Defense

They are type of defensive tactic used in American football, association football, and basketball in which each player is assigned to defend and follow the movements of a single player on offense. Often, a player guards his counterpart (e.g. center guarding center), but a player may be assigned to guard a different position. The strategy is not rigid however, and a player might switch assignment if needed, or leave his own assignment for a moment to double team an offensive player. The alternative to man-to-man defense is zone defense, in which the defender is assigned a specific area of the floor, and then guards whatever offensive player enters his area.

The advantage of the man-to-man defense is that it is more aggressive than the zone defense. It also allows a team's best defender to stay on a player who has to
be guarded at all times. The disadvantage is that it allows the offensive team to run screens more effectively, and it leaves weaker or slower defenders more exposed. In a man-to-man defense, those defenders are generally teammates staying close to their own assigned offensive player, and thus are often not in good position to offer help should a weaker defender be eluded by the offensive player he is trying to guard.

Following a rule change in 1977, man-to-man was the only type of defense allowed in the National Basketball Association. This, in theory, created more actions (such as drives) that were more attractive to fans. During this period, an illegal defense violation was called when a defender was either guarding an area instead of a specific offensive player, or was double teaming an offensive player away from the ball. With the rule change in 2001 permitting zone defense, defenders now have more freedom. However, a defender who is standing inside the key is limited to playing zone defense (not guarding an offensive player at arm's length) for no more than three seconds. If the defender violates this rule, a technical foul is assessed against him, and the opposing team is granted one free throw and subsequent possession of the basketball.

Man-to-man defense is still the primary defensive scheme in the NBA, and some coaches use it exclusively.

Technique

When defending the ball (i.e. guarding the man with the basketball) away from the basket in basketball, players typically should use a version of the following technique: The defender is positioned between the ball and the basket and may be angled in one direction or another depending on the defensive scheme of that defender's team. He has his feet positioned beyond shoulder width with most of the weight distributed to the balls of his feet. However, the defender's heels should not be off the floor as this will put him off balance. The defender's knees should be bent at roughly a ninety degree angle with the bottom of his thighs parallel to the ground. This will place the defenders buttocks in a seated position. The defenders back should be straight with just a slight tilt forward. This will place the defender's head over the center of his body and maintain proper balance. Depending on the teachings of his coach, the defender should position his hands
wide as if he were stretching his wingspan or place one hand high and one hand low.

Fig 1.24 Man to Man defense
Source: www.basketball_zoneDefense

1.6.7 Man-to-man full Court Defense

For our full-court press, we may simply play full-court man-to-man "pressure defense". This is a good full-court defense for younger players to play because:

- It is effective. Just a little man-to-man pressure will often cause the offense to turn the ball over. More experienced (high-school level) offensive players can break this defense down, but usually not middle-school players.
- It is easy to teach and requires little practice time. A full-court zone press on the other hand requires considerable practice time to learn it correctly.
- Players use and learn the same basic concepts of man-to-man defense (on-ball, deny and help-side defense, just extended to the full-court).
- There is little risk, or gambling, with this defense.

The full-court pressure defense is a man-to-man full-court defense. Instead of using the phrase, "we are going to press this team", I tell my players "we are going to pressure this team." A full-court zone press often implies trapping, gambling. With the "pressure defense", we do not gamble or trap much. A zone press that emphasizes trapping is always a gamble. A good offense with quick, experienced guards can break through and score easy lay-ups. Pressure defense is not a gambling defense. It applies full-court pressure to the ball, while still protecting against the easy lay-up. It basically is the same as half-court man-to-man defense, but extended to the entire court. The defender "on-ball" defends
the ball-handler tightly using good, quick footwork, and tries to force to the sideline. To force to the sideline, the defender guarding the inbounds passer should slide a little toward the middle of the floor with arms out-stretched, so as to deny the pass to the middle and force it to the corner. The defender's who are on the ball-side, play "denial" and stay in the passing lanes between the ball and their man. The other defenders, who are opposite the ball-side, play "help-side", and help protect the basket against the easy lay-up. So, what it looks like is, the "on ball" and ball-side defenders playing a typical man defense, while the opposite side looks like a zone back in the paint. There is a saying, "A good man-to-man looks like a zone, and a good zone looks like a man." This is very true of this defense.

All defenders must see the ball at all times. They should try to be in position to see both the ball and their man.

If the ball breaks through the perimeter, or gets up the floor ahead of any defender, all defenders except the "on-ball" defender, must sprint back to the paint to prevent the lay-up. The "on-ball" defender tries to stay with the ball and force to the sideline. There are two ways of starting the pressure in transition. First, after a made basket or ball out-of-bounds, have each defender get on his/her assigned man. Second, after a rebound, steal, or turnover in transition, have each defender just pick up the closest man, rather than trying to run and find their pre-assigned man. Any mismatches that occur are usually outweighed by getting the pressure started immediately, and stopping the fast-break. If the offense advances into half-court, players can "switch" at opportune moments when they are back in half-court. If the offensive man bringing the ball up is caught along the sideline, or in one of the trapping areas (see below), a second defender can run over to his blind-side and trap him, hoping to create a turnover. But do not reach-in and get the foul! The other defenders then should be ready to intercept. This full-court man defense will require the defenders to switch when they are screened. These switches must be called out loudly and happen immediately, so that the ball does not get by them. Again, any mismatches can be switched back later in the half-court if necessary, or your team can optionally drop back into a zone defense in the half-court.
Remember, good "pressure defense" is not a gambling one, but one that extends the pressure over the entire floor, while still protecting the paint. This steady, relentless pressure over the course of the game will harass and tire the opponent, and will cause the offense to make bad passes, and other turnovers that they would never make if they were allowed to dribble up the floor uncontested. "It is human to err, and pressure causes error."

Fig 1.25 Man to Man Full court defense

Source: www.basketball_full_court_Defense
1.7 Defensive Action

1.7.1 Fouls

An attempt to unfairly disadvantage an opponent through physical contact is illegal and is called a foul. These are most commonly committed by defensive players; however, they can be committed by offensive players as well. Players who are fouled either receive the ball to pass inbounds again, or receive one or more free throws if they are fouled in the act of shooting, depending on whether the shot was successful. One point is awarded for making a free throw, which is attempted from a line 15 feet (4.6 m) from the basket. The referee may use discretion in calling fouls (for example, by considering whether an unfair advantage was gained), sometimes making fouls controversial calls or no-calls. The calling of fouls can vary between games, leagues and even among referees. A player or coach, who shows poor sportsmanship, such as by arguing with a referee or by fighting with another player, can be charged with a more serious foul called a technical foul. The penalty involves free throws (where, unlike a personal foul, the other team can choose any player to shoot) and varies among leagues. Repeated incidents can result in disqualification. Blatant fouls with excessive contact or that are not an attempt to play the ball are called intentional fouls (or flagrant fouls in the NBA). In FIBA, a foul resulting in ejection is called a disqualifying foul, while in leagues other than the NBA, such a foul is referred to as flagrant.

If a team exceeds a certain limit of team fouls in a given period (quarter or half) – four for NBA and international games – the opposing team is awarded one or two free throws on all subsequent non-shooting fouls for that period, the number depending on the league. In the US College and high school games, if a team reaches 7 fouls in a half, the opposing team is awarded one free throw, along with a second shot if the first is made. This is called shooting "one-and-one". If a team exceeds 10 fouls in the half, the opposing team is awarded two free throws on all subsequent fouls for the half. When a team shoots foul shots, the opponents may not interfere with the shooter, nor may they try to regain possession until the last or potentially last free throw is in the air.
After a team has committed a specified number of fouls, it is said to be "in the penalty". On scoreboards, this is usually signified with an indicator light reading "Bonus" or "Penalty" with an illuminated directional arrow indicating that team is to receive free throws when fouled by the opposing team. (Some scoreboards also indicate the number of fouls committed. If a team misses the first shot of a two-shot situation, the opposing team must wait for the completion of the second shot before attempting to reclaim possession of the ball and continuing play. If a player is fouled while attempting a shot and the shot is unsuccessful, the player is awarded a number of free throws equal to the value of the attempted shot. A player fouled while attempting a regular two-point shot, then, receives two shots. A player fouled while attempting a three-point shot, on the other hand, receives three shots. If a player is fouled while attempting a shot and the shot is successful, typically the player will be awarded one additional free throw for one point. In combination with a regular shot, this is called a "three-point play" or "four-point play" (or more colloquially, an "and one") because of the basket made at the time of the foul (2 or 3 points) and the additional free throw (1 point).

Fig 1.26 The referee signals that a foul has been committed

Source: [www.basketball.com](http://www.basketball.com)
Fig 1.27 There are different types of fouls committed in the match

Source: www.basketball.com
1.7.2 Steal

Steal occurs when a defensive player legally causes a turnover by his positive, aggressive action. This can be done by deflecting and controlling, catching, or batting to a teammate a pass or dribble of an offensive player. The defender must not touch the offensive player’s hands or otherwise a foul is called. Steals are not credited if the defensive player merely picks up a loose ball in his vicinity or when an errant pass goes directly to him. Steals are credited to the player who first causes the turnover, not the player who eventually gains possession. Whenever a steal is recorded for a defensive player, an offensive player must be credited as making a turnover. Stealing the ball requires good anticipation, speed and fast reflexes, all common traits of a good defender. However, like blocked shots, steals are not always a perfect gauge of a player’s defensive abilities. An unsuccessful steal can result in the defender being out of position and unable to recover in time, allowing the offense to score. Therefore, attempting to steal is a gamble. Steals can pay off greatly, because they often trigger a fast break for the defensive team. There is no prototypical position from which a player may get many steals. While smaller, quicker guards tend to accumulate the most steals, there are many exceptions. For example, forward Rick Barry led the NBA in steals in 1974-75, and for many years center Hakeem Olajuwon led his team in the category, consistently ranking among the league’s leaders.

Orlando Shaw holds the Ohio high school record for steals in a single season. His most notable game was against Columbus Nothland High School. In this game he recorded 13 steals, terrorizing future University of Michigan point guard and Mr. Basketball in the state of Ohio Trey Burke.
1.7.3 Blocking

A block is performed when, after a shot is attempted, a defender succeeds in altering the shot by touching the ball. In almost all variants of play, it is illegal to touch the ball after it is in the downward path of its arc; this is known as *goaltending*. It is also illegal under NBA and Men’s NCAA basketball to block a shot after it has touched the backboard, or when any part of the ball is directly above the rim. Under international rules it is illegal to block a shot that is in the downward path of its arc or one that has touched the backboard until the ball has hit the rim. After hitting the rim the ball it is again legal to touch the ball even though it is no longer considered as a block performed.

To block a shot, a player has to be able to reach a point higher than where the shot is released. Thus, height can be an advantage in blocking. Players who are taller and playing the power forward or center positions generally record more blocks than players who are shorter and playing the guard positions. However, with good timing and a sufficiently high vertical leap, even shorter players can be effective shot blockers.
Fig 1.28. Different type of Blocking in Basketball

Source: www.basketball.com
1.7.4 Carried

In basketball, traveling is a violation of the rules that occurs when a player holding the ball moves one or both of his feet illegally. Most commonly, a player travels by illegally moving his pivot foot or taking too many steps without dribbling the ball. Traveling is sometimes also called "walking" or "carried". The ball-handler may not step with both feet without dribbling, an infraction known as traveling, nor dribble with both hands or hold the ball and resume dribbling, a violation called double dribbling. Any part of the player’s hand cannot be directly under the ball while dribbling; doing so is known as carrying the ball. A team, once having established ball control in the front half of their court, may not return the ball to the backcourt and be the first to touch it. The ball may not be kicked, nor be struck with the fist. A violation of these rules results in loss of possession, or, if committed by the defense, a reset of the shot clock.

1.7.5 Charging

Charging is one of the most controversial foul calls in basketball. Charging is defined as illegal contact by pushing or moving into another player's torso. Sometimes, however, it can be difficult to see which player in a charging/blocking situation is at fault. In "charging/blocking situations" the offensive player is charging and the defensive player is blocking (but that is not to say charging is only committed by offensive players and so on). It is generally accepted that the offensive player should be charged with a charging foul if the defense:

- was still, or moving sideways or backwards but not forwards, when contact occurred
- Took a legal guarding position before the contact, that is, one with both feet on the floor
- was hit on the torso (as opposed to the arm or leg)
- respected the elements of time and distance

However, NBA officials have set the standard "at the moment of upward motion" and the position of the defensive player's feet should not be a deciding factor. In the NBA, the question for officials to consider might be stated as such: Is the defensive player’s torso set in position before the offensive player begins his upward motion? No time or distance is required though for an opponent who is
guarding a player with the ball. Time and distance come into effect when a player
does not have the ball. The elements of time and distance have been respected if
the offensive player could have stopped or otherwise avoided contacting the
defensive player, including if the defensive player was back-pedaling and
gradually slowed down, and including when an offensive player turns a “blind”
corner and contacts a defensive player having an established position.

1.7.6 Offensive
Called when the player with the ball charges into a defender who is in a
stationary, defensive position.

1.7.7 Intentional
When a player makes physical contact with another player with no reasonable
effort to steal the ball, it is a judgment call for the officials. A foul committed on
purpose, usually by a defensive player, to stop the clock or prevent a basket.

Intentional Foul or Technical Foul - Two free throws and possession of the
basketball out of bounds.

Technical Foul :- If a player, coach, or team staff (e.g. doctor, statistician) shows
poor sportsmanship, which may include arguing with a referee, that person may
get charged with a more serious foul called a technical foul. In the NBA, a
technical foul results in one free throw attempt for the other team. In FIBA play, a
technical foul results in two free throws if the offending individual is playing on
the court and two free throws if he or she is on the bench. In NCAA basketball,
technical fouls result in two free throws in all situations. At both levels, the
opposing team may choose any player who is currently on the court to shoot the
free throws, and is then awarded possession of the ball after the free throws.
Since there is no opportunity for a rebound, these free throws are shot with no
players on the lane.

Intentional Foul :- Finally, if a referee deems a foul extremely aggressive, or
that it did not show an attempt to play the ball, the referee can call an even more
severe foul, known as an unsportsmanlike or intentional foul. This foul is charged
against the player (and depending on the severity of the offense, can even be
ejected), and the opponent gets two free throws and possession of the ball
afterwards. Unlike technical fouls, the player fouled must shoot the awarded free
throws. Fouls "away from the ball" (fouls that do not occur on the shooter or near the ball) are handled like the second case above in most situations. Many times defenders hold their opponent to prevent them from catching an in-bound pass or fight through screens and thus are called for fouls. These fouls are almost always treated as normal personal fouls. In the NBA, when there are only two minutes left on the clock of either half, off-ball fouls when the fouling team is over the limit are rewarded with one free throw and possession of the ball. It is therefore common for a losing team to deliberately single out its opponent's poor free-throwers, regardless of their dominance in other aspects of the game (as in the cases of Ben Wallace and of Shaquille O'Neal), as the targets of deliberate fouls until the two-minute mark, after which the losing team plays intense defense for the rest of the game (see Hack-a-Shaq). It is believed that this rule was instituted because of Wilt Chamberlain. Previously teams had been allowed to foul any player on the court regardless of whether that player had possession of the ball, with only two free throws awarded to the fouled player. This motivated teams to chase poor free-throw shooters, such as Chamberlain, around the court in attempt to foul him in an effort to extend the game. To discourage this practice, the NBA changed the rule to award one free throw and possession of the ball to a player who is fouled away from the ball in the last two minutes of the fourth quarter. This rule does not apply in international or NCAA plays and in fact plays a very vital strategic role in the NCAA Tournament.
Fig 1.29 Player taking a shot after a intentional foul

Source: wikipedia.org/wiki/Basketball
1.7.8 Double Dribble
In the game of basketball, a double dribble is a violation in which a player dribbles
the ball, clearly holds it with a combination of either one or two hands (while
either moving or stationary), and then proceeds to dribble again without first
either attempting a field goal or passing off to a teammate. Double dribbling can
also occur if a player tries to dribble using both hands at the same time. In the
National Basketball Association, a dribble is movement of the ball, caused by a
player in control, who throws or taps the ball into the air or to the floor.
The dribble ends when the player:
• Touches the ball simultaneously with both hands
• Permits the ball to come to rest while they are in control of it
• Touches the ball more than once while dribbling, before it touches the floor.

1.7.9 Time Violation
There are limits imposed on the time taken before progressing the ball past
halfway (8 seconds in FIBA and the NBA; 10 seconds in NCAA men's play and high
school for both sexes, but no limit in NCAA women's play), before attempting a
shot (24 seconds in FIBA and the NBA, 30 seconds in NCAA women's and Canadian
Interuniversity Sport play for both sexes, and 35 seconds in NCAA men's play),
holding the ball while closely guarded (5 seconds), and remaining in the restricted
area known as the free-throw line, (or the "key") (3 seconds). These rules are
designed to promote more offense.

1.8 Position Index

Shooting Position on Ground:
The "paint" is the area inside the lane lines from the baseline to the free-throw
line. If your offensive player has a foot on, or inside these lines for 3 seconds or
longer, he will be called for the 3-second violation.

There is no restriction on the time defensive players can occupy the paint.
"Free throw line", ("charity stripe") is the line you must stand behind when
shooting a free-throw.
"Low post" area is the area near the "block" on either side of the lane (or "paint"
area); to about half way up the lane toward the free throw line. "High post" is
that area along the free throw line, and both "elbows". The "point" is out front,
and the "wings" on either side. The "top of the key" is above the free-throw circle (many years ago, the lane was not as wide as the free-throw line and circle, and so it looked like a key, or keyhole). The "short corner" is between the corner and the basket, about 12 feet out.

"Ball-side" refers to the side of the floor where the ball is. "Weak-side" is the opposite side away from the ball. Players cutting on the weak-side toward the hoop are using the "back-door".

"10 second line", or half-court line, is the line down the center of the floor. It divides the "full-court" (entire playing area) into two "half-courts". Your "forecourt" is the half-court with your basket, and the "back-court" is the half-court with the opponent's basket. Once a team gets possession of the ball, it has 10 seconds to get the ball across the half-court line into its fore-court. Once across this line (all three points - the ball and both feet), they may not pass or dribble the ball back across this line, or step on the line (while having possession) or the "over and back" violation occurs. The offense may retrieve the ball without penalty if deflected across by a defensive player.

Fig 1.30. Different type of Blocking in Basketball

Source: www.basketball/position/define.com
1.9 History of Performance Analysis

Performance analysis of sports is a relatively recent discipline of sports science and its history is composed of the history of biomechanics and the history of notational analysis, with these two disciplines coming together within performance analysis in 2001. Sports has existed since the ancient Olympics and grew in the 20th century. The history of notational analysis of sports has been described by Mike Hughes during Keynote addresses of world Congresses of science and football (Hughes, 1993) and Science and Racket Sports (Hughes, 1998). Shorthand notation have been used for centuries to record data in many areas of business and science, as well as music. However, the first recognized system for analyzing and recording human movement was Lab notation, founded by Rudolph Laban in 1948.

Analysis of behavior in competitive sports has also been done since the beginning of the 20th century, pre-dating the use of notational analysis. In March 1907, a statistical analysis of French rugby championship final was published in a newspaper article (Martin, 1907). Hughes and Franks (1997:40-69) reviewed notational analysis work in different sports occurring as rarely as the 1970s (tennis, squash and wrestling) and 1980s (volleyball, field hockey rugby union ND Australian Rules football).

1.10 Performance Analysis Research

Performance analysis is an area of sports and exercise science concern with actual sports performance rather than self report by athletes or laboratory experiment. Performance analysis of sports is the investigation of actual sports performance. When Hughes and Bartlett (2008) wrote a book chapter entitles 'What is performance analysis ?' they covered notation analysis and bio-mechanics. The view of these author is that all research that involves the analysis of actual sports performance in training or sports competition can be referred to as ‘performance analysis’

The main reason for doing performance analysis is to develop an understanding of sports understanding of sports that can inform decision making by those seeking to enhance sports performance. The complexities and dynamic nature of many sports means that observation and measurement is needed to improve our
understanding of performance .Hughes (1986) identified the four purpose of notation analysis as technical evaluation, tactical evaluation, analysis of movement and statistical compilation. Statistical compilation is something that overlaps with the other three purposes so the purpose of notation analysis were revised to the following five purposes of notation analysis (Hughes,1998): technical evaluation, tactical evaluation, analysis of movement, coach and player education, and performance modeling using match analysis databases.

Performance analysis is primarily done to provide support for individual athletes as well as squads. Within this coaching context, the objective information is often produced by a professional performance analyst who liaises with the coach as part of a coaching process that involves providing feedback to the players. The performance indicators used to assess and monitor athlete performance can also be used by high performance directors within the planning, management and control of elite performance programmes (Greene, 2008). Performance analysis is also undertaken within the judging of some sports. In order to award marks to figure skaters, gymnasts and divers, it is necessary for judges to observe the performance of the athletes and award marks according to established criteria.

1.11 How is Performance Analysis of Sports Done?
There are varieties of methods that can be used to gather data for performance analysis exercises, ranging from highly quantitative biomechanical analysis to quantitative analysis. Notation analysis is a method of recording and analyzing dynamic and complex situation such as field games. It allows the data to be gathered in an efficient manner, providing an abstract view of the sports that focuses on the most important information. In early manual notational system, shorthand symbols and tallies allowed data to be recorded efficiently. More recently, computerized notational analysis system have followed advances in date entry technology and allowed flexible and highly efficient processing of match data.

1.12 Need and Importance
Basket ball is played at every level in Maharashtra and it is a need of an hour to investigate and analyze the game of the player of Maharashtra. It is a need to
study the way they play and use the skills and techniques. In this study matches were observed with the help of observation chart, the skills and techniques used by the players are analyzed. The players of Maharashtra will understand their constraint to improve their performance. Researcher himself has played the game and is couching teams, he also knows the difficulties to promote and increase the standard of the game. Hence this study is found necessary

1.13 Significant of the study

As Basketball in our country is developing very fast and at the same time there are very less research carried out in while the tournament. So it is important to know the present skills which were being used in the tournament. To know the present situation the study was carried out recording the matches at state as well as national tournament form the quterfinals.

The present study is important and significant on the basis of the following points

- It is very important for the coaches or directors of sports to have a clear understanding about the application of skill of Basketball to be used during match.
- This study will suggest skills which give maximum output to win the match and make a standard team.
- The concern coaches and director of sports will get a readymade skill chart which will be useful for them concern to coaching of Basketball.
- This will in turn help them to search for an appropriate remedy to improve the players’ competencies.
- The present study will evolve knowledge about a maximum skills implementation in basketball players. Such knowledge may help Players to develop their skills on their own.
- This Investigation may also be helpful for directors of physical education, coaches, selectors and experts in developing the talented Basketball players.
- The results of the study may help to understand the skill which is being used by different teams and so that accordingly they can develop their winning strategies.
• The study will help to adopt new strategies in training, coaching and teaching so as to enhance the skills being used.

1.14 Statement of the Problem
Indian and Maharashtriya Basketball players do use different skill for maximum performance but it is not known which skills they use more from some particular place. Researcher searched in different Journals, magazines, research paper etc. but could not get the answers of the following questions.

How do Indian players perform in Basketball competition?
Which skills are frequently used in National and State level Basketball competitions?
How the player perform in Basketball competition at national and state level competitions with reference to place, type of shot etc?
To find the answers of these questions researcher had selected the following research problem for this study.

"Analytical study of Skill Effectiveness and Performance in Senior State and National Basketball Competition"

1.15 Objective of the study
While conducting this study to find out the solution of the research problem the researcher had decided the following objectives.

1.15.1 To developed an observation chart to analyze skills being used in Basketball matches.
1.15.2 To develop performance observation tool.
1.15.3 To make video recording of Basketball matches of senior players played in state and national Competition.
1.15.4 To analyze the skills effectiveness of Maharashtra and National Basketball teams with the help of observation chart.
1.15.5 To compare skill effectiveness of Maharashtra teams and National teams.

1.16 Assumptions
Assumptions are those which researcher thinks is a fact but can not verify it hence before carrying out this study following assumptions were taken into consideration for a smooth flow of research.
1.16.1 Basketball players have gone under the Basketball training as they will be playing at state and national level.

1.16.2 Status of the Basketball players is equal with reference to fitness, training, skill level, techniques, tactics etc. as they will be playing Basketball competitions at the same level.

1.16.3 Players play and demonstrate Basketball skills and techniques according to their potential in the State and National level Basketball competitions.

1.16.4 All the players are aware of skills, techniques and new rules of Basketball.

1.16.5 The instruments to be used in this endeavor will be standard.

1.16.6 Maharashtra Basketball Association will give permission to take VIDEO recording of Basketball competition

1.16.7 Indian federation will give permission to take VIDEO Basketball matches.

1.16.8 It was assumed that statistical tools to be used will be appropriate and hence researcher will be able to generalize the results on the population selected for the study.

1.17 Delimitation of the study

1.17.1 This Investigation is delimited to the senior Basketball Matches of Maharashtra and National Matches.

1.17.2 Present study is delimited to male senior (above eighteen years) Basketball teams only.

1.17.3 This research is limited only to Senior State and National Basketball Competition.

1.17.4 Present study is delimited to the skills used in the matches during state and national competition.

1.17.5 There are many factors affect performance of Basketball players but present study is delimited only to the performance observed by the developed tool.

1.18 Limitations of the Study

This study has a large scope but it was not possible for researcher to reach every level hence the investigator had delimited the study with respect to gender, level of competition, skills etc. as follows.

1.18.1 Performance due to injuries may not be controlled.
1.18.2 It was limitation of the researcher to have control on the fitness level, training given to the players, knowledge of players about Basketball skills and game.

1.18.3 Coaching, practice geographical conditions, motivations and other performance factors may not be controlled by researcher.

1.18.4 The research was fully depending on the video recording of Basketball Competition, though video shooting was properly done for the purpose of observation steel researcher considers it as limitation of the study.

1.19 **Operational and Conceptual definitions of the Terms**

1.19.1 **Basket ball**

Basketball is game played according to the rules and regulations laid down by International Federation of Basketball

1.19.2 **Basketball Match**

The Basketball game played between two teams to win the game at State and National Basketball Competition is said to be Basketball match in the present investigation.

1.19.3 **Competition**

The competition organized by Maharashtra State Basketball Association and Indian Basketball Federation during the year 2009-10 is termed as competition during this endeavor.

1.19.4 **Skill**

The activities done by offensive or defensive players during State and Nationals level matches in Basketball competitions to win it are named as skills.

"It is an organized coordinated activity in relation to an object or a situation which involves a whole chain of sensory, central and motor mechanism" *(Arggle & Kendar 1976).*

“A learned ability to bring about pre determined result with maximum certainty often with the maximum outlay of time or energy or both” *(Knapp 1964).*

“Skills as a task that as a specific goal to achieve within sports environment skill requires a movement component a motor skill as a skill
that requires voluntary body and/or limb movement to achieve the goal”


1.19.5 Performance

In this present study Performance refers to the match played by the player at state and national Basketball Competitions.

“Sports performance is the unity of execution and result of a sport action or a complex sequence of action measured or evaluated according to socially determined and agreed norms” (Thesis and Schnabel 1987 Dr Nandalal Singh).

1.19.6 Player

Male Basketball Senior player above eighteen years, who has registered his name with Basketball association and playing State and national Competitions following the rules and regulations, laid down time to time by the same.

1.19.7 Skill Effectiveness

The successive Skills used by the Basketball players during Maharashtra State and National Competitions are referred to Skill Effectiveness concern to present study.
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