Basketball Analytics - Simple & Practical
Notes Taken From Grant Leonard's Talk At The 2017 Jay Bilas Skills Academy

Item #1: How to lose a game

1. Turn the ball over

2. Allow OREB

3. Foul

The first two, turnovers and OREB, are deadly because they give more possessions to your opponent. Additionally, turnovers and OREB often lead to very easy scores for the opponent as well. The final component, fouling, is an issue because it allows your opponent to take one of the most efficient shots (FT), and also has the potential to give more FT attempts later in a quarter or half (bonus, double bonus), as well as sideline a key player for you due to foul trouble.

Item #2: How to win a game

Factor 1: Win the possession battle (have the ball more and take more shots than your opponent). There are two ways to do this:

1. Turnover margin - create more than you give up

2. Offensive rebounding

It is vital that your style of play/philosophy sets you up to win the possession battle. Can you play fast on offense and slow on defense? This may put you in possession debt before the game even starts (i.e. playing fast normally means more TO's, but if you do not get them back by forcing TO's on defense you lose possessions).

Factor 2: Take efficient shots. Your offense should be built to create these shots and your defense should be built to take them away.

1. The most efficient shot in basketball is a free throw. If you shoot 75% from FT you earn 1.5 ppp

2. Shoot good 3's. For me personally this means that 3 point attempts are
   a. In the shooters range
   b. Open
   c. Taken while on balance

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3. Shoot layups

4. Shoot wide open mid range jumpers

When all's said and done, you want your offense to be averaging 1 point per possession.

Item #3: Tracking offensive efficiency

There are a few ways to do this, but the first way is to evaluate offense through the lense of "paint touches".

There are 4 ways to get the ball into the paint
1. Drive it
2. Pass it to a player posting-up
3. Hit a cutter/roll man
4. OREB

When these paint touches happen, good offensive things generally occur. Two questions to help you evaluate your offensive efficiency are:

1. **What is your shooting % on paint touch shots versus non paint touch shot?**

2. **How many paint touch possessions are you getting versus non-paint touch possessions?** *(2:1 ratio of paint touch possessions versus no paint touch is ideal)*

The second way to track offensive efficiency is through the number of ball reversals. As a rule of thumb, the more you change sides of the floor with the ball, the higher your shooting percentage increases.

For Grant's team, they track shots on the 1st side of the floor, the second side of the floor, and lastly shots taken on the third side of the floor. If they get to 4 or 5 reversals, they just stat that as the third side of the floor because it happens so infrequently.

Shooting percentage on 1st side, 2nd side, 3rd side (and more)

        a. 1st - 22%
        b. 2nd - 46%
        c. 3rd + - 65%

Does your offense create ball reversals early in the possession (i.e. transition)?

All of this data is logged and tracked after the game has been completed and the self-scout process has begun. At Queens, their self-scout includes:

1. A 15 clip edit of good and bad clips from the game
2. A possession chart that tracks shooting percentage on paint touch possession versus non paint touch possessions, shooting percentage based on the number of reversals that the shot was taken on, and a combination of shooting percentage both paint touches and reversals.
3. A plus-minus chart where they track various metrics that they feel influence winning.

Item #4: Taking advantage of ATO & special situations

ATO plays normally are 25% of the game for an average team. Are you practicing these often? Why would you ignore one quarter of the game.

To practice this, Queens does a drill called "1 and go". Here is how the drill works:

Literally call a timeout, one coach with defense one coach (give a defensive adjustment and a play for offense) with offense (give a play and a defensive adjustment) and work on ATO scenarios. First team to 12 wins. Vary the ATO situation (SLOB, BLOB, walkup, etc).