EXAMINING INEFFICIENCIES IN NBA PLAYER DEVELOPMENT

AND POTENTIAL SOLUTIONS

by

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Examining Inefficiencies in NBA Player Development and Potential Solutions

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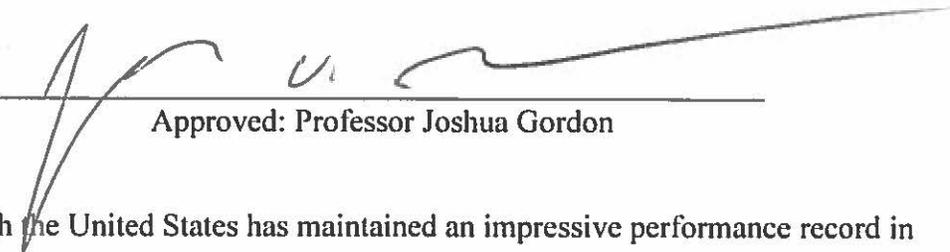
Approved: Professor Joshua Gordon

Though the United States has maintained an impressive performance record in international athletic competition, its amateur sport infrastructure has become less efficient than that of many other countries, hurting the NBA's ability to expand. For late-development sports like basketball, in which early athletic training should be varied early and specialized late, these training inefficiencies have led to diminished skills among players at the highest level, like those in the NBA. Basketball-specific factors, like the preps-to-pros era coinciding with the post-Jordan generation, have severely affected the training methods in American basketball. The NBA and its teams have taken note of this change. As the San Antonio Spurs make headlines with a roster of imports, the percentage of foreign players in the NBA has never been higher. As rule changes in the NBA have made for a faster game predicated on skill and savvy, the American player pipeline has never been less prepared.

This thesis will define problems with the current system in areas of physical, athletic, and mental athlete development and examine player development models through a holistic lens, digging into the underlying causes of skill deficiencies in the NBA player pool. This research points to the unstructured nature of youth basketball, which is the root cause of paramount issues like the lack of coaching educational standards, as well as many other underlying problems which pervade the NBA player development pipeline. After doing this, it will attempt to solve some of the major issues facing American basketball player development, for example, transitioning players into the NBA and how to systematically train the vast numbers of youth participants. Systems like Canada's Long Term Athlete Development and the youth academy system

in German club football headline a comprehensive list of alternatives to assess. By taking the best aspects of each model and adjusting them to the NBA environment, a better system can be designed, giving the NBA more control of its talent pipeline and further ability to expand and scale.

# Acknowledgements

"Sometimes what you hear a lot is, 'oh you have to depend on luck.' That ain't new. That ain't new for any of us. Born in this country, born in this era. Comparing households, going to college. These are all lucky. We realize that, right?"                                                        - Sam Hinkie


I would like to thank Professors Bothun, Gordon, and Rosenberg, for helping me to fully examine the specific topic and consider the various perspectives and contexts related to this subject matter. Specifically, Professor Bothun, for offering alternate, valuable perspectives on data, basketball, and the NBA; Professor Gordon, for consistently reminding me that consuming an elephant happens one bite at a time and so does finishing a thesis; and Professor Rosenberg for helping me keep the big picture in focus despite my habitual dwelling on each morsel of the project. This sincere gratitude extends to my friends and family, who have allowed me to outwardly and persistently ruminate on this topic, often at their expense. My motley collective of friends has been a stabilizing force over the past year, during which my level of confidence in the project ebbed and flowed and waxed and waned.

Nothing would be possible without my tremendous luck, on account of which I was raised by my mother, Jill, to whom I owe everything. From Tupac Shakur's Dear Mama, "There's no way I can pay you back. But the plan is to show you that I understand, you are appreciated." Distilling this gratitude remains one of this project's more difficult tasks, but, in short, thank you for never letting my questions go unanswered, even when the answer was complicated, crass, or unfair, as is often true.

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# Introduction: Current Model and Problem Presentation

**Introduction**

"Sometimes I dream
That he is me
You've got to see that's how I dream to be
I dream I move, I dream I groove
Like Mike
If I could Be Like Mike
Like Mike
Oh, if I could Be Like Mike
Be Like Mike, Be Like Mike
Again I try
Just need to fly
For just one day if I could
Be that way
I dream I move
I dream I groove
Like Mike
If I could Be Like Mike
I wanna be, I wanna be
Like Mike
Oh, if I could Be Like Mike"[1]

In 1992, an advertisement with this song aired on national television, which depicted Michael Jordan playing basketball with children while drinking Gatorade. A year after his first NBA Championship and second MVP season, Jordan had taken over America's basketball consciousness. The sight of Jordan's constant adjustments, as calculated as they were unpredictable, cemented his silhouette as the greatest player in a generation, and arguably ever. This captivating imagery touched every part of the basketball world, especially in business and marketing. Nike, which sold Jordan Brand basketball shoes, was integral in the marketing of Jordan as a player and a brand. In turn, Nike and Jordan saw a windfall of revenue from the sale of shoes and other

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[1] "Be Like Mike Gatorade Commercial (ORIGINAL)." Youtube. Gatorade, 23 Oct. 2006. Web. 7 Mar. 2016.

apparel. In fact, Jordan still makes $100 million per year from Nike, having made only $94 million in salary during his playing career.[2] The amount of money made by Nike and Jordan opened the eyes of others in the shoe business, changing the way in which many operate in relation to athletic, and particularly basketball, sponsorship. Now, each NBA star has his own shoe contract, which can supplement, and often supplants, a player's NBA salary, while acting as somewhat of a status symbol.[3] As the race has gotten more competitive to sign top stars, bidding starts earlier. Increased competition, coupled with the rise of the internet, has brought more visibility to high school players. This made them more easily identifiable for national media, making shoe companies more interested as well. With more money involved than ever, and an established revenue stream from selling shoes endorsed by star players, high school basketball has become a fertile ground for shoe companies. The Amateur Athletic Union lists Nike, New Balance, Eastbay, and Spalding as sponsors.[4] High school team partnerships not only yield potential high-value endorsers, they also set the standard for other high school players in a given area. While every young player tries to emulate the pros, they also try to fit in with each other. For instance, by ensuring that the best high school teams wear Nike gear, Nike can then ensure that their peers will demand the same.

Jordan's reach extends far beyond the business plans of shoe companies, however, as many young players grow up wanting to 'Be Like Mike.' In fact, the 2002 movie, *Like Mike*, centers around a young orphan, portrayed by kid rapper Lil' Bow Wow, who finds a pair of Jordan's old shoes. After lacing up the sneakers, he is

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[2] Strauss, Ethan Sherwood. "You Won't Believe How Nike Lost Steph to Under Armour." ESPN. ESPN Internet Ventures, 23 Mar. 2016. Web. 30 Mar. 2016.
[3] Ibid.
[4] "Sponsors." AAU Sports. AAU, 2016. Web. 9 May 2016.

suddenly endowed with the 'powers' of Jordan, turning this stroke of luck into a

contract with his local NBA team.[5] This dream is a reflection of almost every young fan

in the post-Jordan era, including many who actually reached the NBA. Another Nike

star, Kobe Bryant, is a miraculous reconstruction of Jordan's style, down to his

footwork and shot chart. This Jordan aspiration is not limited to Kobe, however, as two

generations of basketball players have grown up idolizing the man who redefined so

many aspects of the game. As Bryant's NBA career comes to a close, the isolation-

laden style of basketball pioneered by Jordan has also started to phase out, 31 years

after Jordan's NBA debut and 30 years since the introduction of his signature shoe. The

2015-16 Golden State Warriors, who broke the single-season win record set by Jordan's

Bulls, pass the ball in a feverish manner that would appear reckless if not for its

lucidity. However, what remains from the fallout of the Jordan-bomb is a forever-

changed youth basketball structure, fueled by the advent of the internet and the success

of the Jordan Brand, enabled by the unstructured world of amateur basketball. In the

current system, all of the major high school tournaments are run or sponsored by

apparel companies.

In the light of how much money is involved for many of these stakeholders,

ulterior interests can become quite a fixating distraction for players and coaches. The

current manner in which the interests each party of the professional basketball pipeline

have been directed are, at some point, away from developing basketball skills. Given

the order at which basketball-centric athleticism progresses in young players, making

basketball a late-development sport, the focus should be on developing each individual

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[5] Like Mike. Dir. John Schultz. 2002.

rather than on assessing an individual.[6] Roles and positions, having been intended as direction, often act as limits for individuals whose physical traits are a work in progress. Such unintended consequences of the current culture and business that surround American basketball abound in the American youth basketball system. This is not to say that any of these actors are inherently corrupt or evil, rather, that the system in place incentives behavior that is counter to the long term goal of athlete and personal development. An introduction to the current NBA environment, followed by a number of case studies, and concluded with an analysis of the current development system will explain the issue in depth.

**Current NBA Environment**

During the Analytics in Action panel at the 2016 Sloan Sports Analytics Conference, the conversation turned to how advanced statistics can help players assess and add to their skills. On this topic, WNBA star Sue Bird lamented, "good luck trying to add anything [to your game] when you're trying to win."[7] Shane Battier, former NCAA and NBA champion added, "the only way to improve in the NBA is if you have a leash [to make mistakes]."[8] These quotes reflect that, in the professional basketball environment, where winning takes top billing, improvement is hard. The best players get the highest salaries and the most playing time. They also get the most room for error, to improvise off of a coach's game plan or contribute their own ideas to said game plan. In other words, they get the longest leash. Young players are often not

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[6] "Canadian Basketball Athlete Development Model." Sport for Life. Canada Basketball, Fall 2004. Web. Fall 2016. 15+ contributors
[7] Bird, Sue. "Analytics in Action Panel." Proc. of Sloan Sports Analytics, Boston, MA.
[8] Battier, Shane. "Analytics in Action Panel." Proc. of Sloan Sports Analytics, Boston, MA.

among the best on their team, and the start of an NBA career is as much about learning

as it is playing. However, do to the NBA's win-centric orientation, this learning is too

often interrupted by the hazards of the business. Winning requires teams to play their

best players, which often excludes young prospects. To boot, winning often drives

teams to acquire better players in favor, and often in exchange, for younger players. In

such transactions, a player's training is interrupted as he changes cities and teams.

Portland Trail Blazers assistant coach David Vanterpool, who has nurtured the

development of their young players, including star backcourt duo Damian Lillard C.J.

McCollum, has seen how difficult that can be. "It's tough...it's the beast of the league."[9]

Despite a turbulent league initiation, players can still "try to find their niche in the

league" by "trying to figure out who [they] are and how to be the most effective."[10]

Here Vanterpool refers to cultivating innate skills which apply to any level or style of

basketball, like "rebound[ing], defend[ing], ball-handling, and three-point shoot[ing]."[11]

Developing these stalwart skills allows players to become more valuable through

"filling a void."[12] These are abilities which players can hone through personal coaches,

however, voids differ slightly by team. Vanterpool explains:

> "When guys work with us, we work on skillsets, as well as certain skills and
> movements that are incorporated with some of the [plays] that we may run
> during the season…[For example], right now we're running [the pinwheel
> offense] and a trainer for the summer might put C.J. through some stuff like
> that...Say we change up everything next season. They don't know what we're
> going to do, so [personal trainers] don't have the luxury to be able to put guys in
> positions to use that stuff."[13]

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[9] "Vanterpool Thesis Interview." Personal interview. 23 Mar. 2016.
[10] Ibid.
[11] Ibid.
[12] Ibid.
[13] Ibid.

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This reality makes developing skills, and becoming an essential part of a team, challenging to those players who do switch teams. Of the 120 players drafted in the first round from 2012 to 2014 who are still on the rookie their rookie contracts, nearly one quarter (28) are no longer on the team for which they played their professional first game.[14] This transactional frequency is a reality in the NBA, and all professional sports, where teams constantly try to improve through planning-based transactions and player development, yet these two methods often conflict.

Of course, there are exceptions to the win-now NBA axiom; teams that have bleak hopes of winning operate on the foundation of on-the-job training for young players, since fan and owner expectations to win are low. Yet all too often, this training does not lead to sustained winning down the road. Player development largely takes place in the summer and fall offseason, when players can confer with each other and their coaches to further hone their skills. Vanterpool reflects that "[Damian Lillard] obviously started [since he was drafted]...but his development was through long summers of work."[15] Players that do not receive major playing time, like McCollum, and even some that do, like Lillard, "have to be on the court a certain time before practice time to get their individual workout in [before games]."[16] Despite the extra work put in during the season, Vanterpool continues, "most of it's done in the offseason: summers, preseason, summer league, all those types of things where you can have your hands on them enough to get that work, time, and effort in."[17] According to Vanterpool, an important factor for individual and team development is the culture of

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[14] "2012, 2013, 2014, 2015 NBA Drafts." Basketball Reference. Sports-Reference. Web. 15 Mar. 2016.
[15] "Vanterpool Thesis Interview." Personal interview. 23 Mar. 2016.
[16] Ibid.
[17] Ibid.

the locker room and team as a whole, which manifests in things like unofficial team

workouts:

> "We come here in September, most of the team is already here. We start working out as a team, basically in the early part of September and that's leading into training camp. So we have a month of our team together, and the young guys working, and working, and working. Guys have had the right attitude as far as continued efforts to get better, continued efforts to want to be the best player they can be and want to succeed. And that's started something of a culture here, so the new guys come in and they see that certain things are expected of them."[18]

Team culture stands as one of the keys to player development, and overall team success,

in a league where there is little time available for practice. Naturally, young players

across the league benefit differently from their respective team cultures. Players,

particularly veteran players, are central figures in building and creating a team's culture.

Having played professionally in the NBA and overseas, as well as gaining experience

coaching overseas and at the international level with Team Canada, coach Vanterpool

has been a member of a myriad of teams over the years. Veterans play roles that

coaches cannot, because, as Vanterpool states:

> "They are in the locker room, which is [the players' space]. They might be in the locker room talking about things that have nothing to do with basketball...They have already seen so many different scenarios...that they can help some of the younger players understand what's happening and what's about to happen. Not so much on the floor, but including off the floor, things to stay away from...Being the voice of reason...because their voice carries a lot of weight...Some of [the young players] can only dream to be an 11, 12-year NBA veteran, no matter what level of player that is...Veterans give you a lot. It could be good, it could be bad, it all depends on what kind of veteran you get."[19]

This past season, the Trailblazers have certainly benefitted from veteran leadership from

their young star, Damian Lillard. During the midst of another successful season, in

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[18] Ibid.
[19] Ibid.

which the team made the playoffs despite losing four of its five starters from the

previous season, ESPN staff writer Kevin Arnovitz wrote an article praising Lillard's

leadership of the suddenly young team. Arnovitz notes that Lillard "is one reason the

Trail Blazers quickly got over [former star, LaMarcus] Aldridge's departure. Veteran

flight like the one the team experienced over the summer often leaves a cultural vacuum

that takes years to fill."[20] C.J. McCollum says of the team's culture that "every one of

us has something to prove, so everyone is working hard. That's great for our culture,

especially for a young team." The success of the Blazers stands as another example

which has fed into 'culture' becoming the new NBA buzzword on par with 'analytics,'

which perhaps began with the San Antonio Spurs winning the 2014 NBA Finals. Where

the Spurs have used culture to add many years' worth of sand to their contention

hourglass, the Blazers have completely restarted theirs, starting anew with their young

core.

Veterans become more crucial for player development as players get younger,

evidenced in Jonathan Abrams' book, *Boys Among Men: How the Prep-to-Pro

Generation Redefined the NBA and Sparked a Basketball Revolution*. While discussing

the book's most interesting themes on the Lowe Post podcast, Abrams discussed how

some veteran mentors helped the transition their teenaged teammates into the NBA.

> "I wanted to compare those [high school players] who were drafted in 1998
> because it was Rashard Lewis, Al Harrington, and Korleone Young. I felt that
> Rashard and Al Harrington were able to get the breaks that Korleone just didn't
> get. Rashard was also a second round pick and the lockout was just happening,
> so these guys had even more downtime than normal. Rashard was able to get
> into these great pick-up games in Seattle, getting ready for the season with Gary
> Payton being a good mentor for him. Al Harrington had Antonio Davis, who

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[20] Arnovitz, Kevin. "Young Blazers following Damian Lillard's Lead to Surprising Heights." ESPN.
ESPN Internet Ventures, 25 Feb. 2016. Web. 9 May 2016.

basically like Antonio's high school-aged son...Antonio gave Al curfews and chores to do around the house. And then Korleone was basically on his own in Michigan, where the organization didn't have any type of stake in him, whatsoever, because Korleone was a second round pick...Two guys got these pretty good breaks and afterwards became pretty successful NBA players and made lots, and lots of money. Where Korleone Young just had his 15 minutes and was gone..."[21]

During the course of the podcast, Zach Lowe describes having a mentor as "the kind of break that you just get or you don't."[22] Now in his 22nd season, Kevin Garnett, the first player in the preps-to-pros generation, has returned to the Minnesota Timberwolves to provide that break to its young core of players. The Timberwolves roster, and the future of the franchise, is built around three players aged 20 or younger, Karl-Anthony Towns, Zach LaVine, and Andrew Wiggins. Says Towns of the player-coach Garnett, "He's my mentor…[I am] just trying to garner information from him every day. Learn how to be a better leader, how to be a champion, just to be a true professional."[23] To Vanterpool's and Abrams' point, Garnett's leadership contrasts with that of other aging stars who share the locker room with young prospects. Michael Jordan, whose rise to greatness has shaped much of modern American basketball culture, took his turn at mentorship during his tenure with the Washington Wizards, specifically with 19 year-old first overall pick Kwame Brown. Jordan, as the former part-owner of the team, had originally drafted Brown, but then sold his shares in the team to join it as a player. Michael Leahy's book, *When Nothing Else Matters, Michael Jordan's Last Comeback*, outlines the details of Jordan's relationship with Brown, which began with "Jordan

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[21] "The Lowe Post - Jonathan Abrams." Interview. Audio blog post. ESPN. ESPN, 15 Mar. 2016. Web. 17 Mar. 2016.
[22] Ibid.
[23] "Karl-Anthony Towns: Kevin Garnett Is 'my Mentor'" FOX Sports. 22 Sept. 2015. Web. 10 May 2016.

simultaneously play[ing] the roles of buddy [and] mentor."[24] However, when his

"infatuation with his protégé waned," the relationship unraveled, exemplified by Jordan

calling Brown homophobic slurs[25] during a practice, leaving "Brown numb for several

days thereafter."[26] This reprehensible example notwithstanding, one can look to the

team culture of a young Los Angeles Lakers team, still led by the 'second coming of

Jordan,' Kobe Bryant, drafted out of high school in 1996, one year after Kevin Garnett.

While his peak years were headlined by teammate drama and championships, the

former leading to the Lakers trading Hall of Fame center Shaquille O'Neal in 2004,

Bryant's final season was marked by teammate drama and losses. These examples

underscore that the development of young players in professional sports, even when

they are afforded playing time, can depend on a team's culture, which can affect

development through dictating training habits, lifestyle habits, and overall personal

wellbeing.

　　For players who do not receive as much playing time, or whose development

may not be as central to a team's culture, the NBA's Developmental League represents

a potential non-offseason opportunity for repetition and improvement, though it remains

an expanding project. As of the 2015-16 season, 16 of 30 NBA teams had devoted D-

League affiliates, leaving the other 14 teams to share three D-League teams.[27] The NBA

is planning for the D-League to reach 30 teams, which most expect to happen.[28] NBA

commissioner Adam Silver has also stated that he would like to increase the minimum

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[24] Michael, Leahy. "When Nothing Else Matter." ESPN. ESPN Internet Ventures, 2004. Web. 10 May 2016.
[25] Jordan's exact words were "flaming faggot"
[26] Ibid.
[27] "Home - NBA D-League." NBA DLeague Home Comments. Web. 13 May 2016.
[28] The Lowe Post – Adam Silver." Interview. Audio blog post. ESPN. ESPN, 21 Dec. 2016. Web. 2 Jan. 2016.

salary in the D-League.[29] For those teams that do not have their own D-League affiliate,

there are limits to how much control can be exerted over the D-League team's training

practices and emphasis. Though assigning players to unaffiliated D-League teams

provides more playing time, it takes a player out of the general environment of their

NBA team, which includes practices, weight room time, and film sessions. Teams that

do have affiliates exhibit a mixed use of them. While some teams carefully coordinate a

player's opportunity to participate in games, practices, and meetings with both teams,

others send players down to the D-League for months-long stretches, until consistent,

substantial playing time can be had at the NBA level. Of course, the needs of each

player are different, but the D-League and how NBA teams use it very much remains a

work in progress. The D-League makes off-the-court services available to players,

which "include seminars regarding off-court professional development, college degree

completion, and life skills programs such as the Summer Apprenticeship Program

(SAP)."[30] They also have a Mentor Program, in which D-League players are paired with

an "accomplished NBA player who share[s] similar career goals and aspirations."[31]

     Given the challenges of developing players' talents in the NBA, the league and

its teams rely heavily on the infrastructure of amateur American sports to develop

incoming prospects. Using a statistic called, Win Shares, which attempts to value

players based on approximating how many wins they contributed to their team, one can

see the degree to which young players help their teams. Over the four-year period from

2012 to 2015, the average player on a rookie-scale contract was paid $1.3 million per

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[29] Ibid.
[30] "FAQ - NBA D-League." NBA DLeague Home Comments. Web. 13 May 2016.
[31] Ibid.

year and produced an average of 1.05 win shares, which was worth $1.9 million during the 2016 free agent market, per Basketball Reference data. However, the standard deviation of yearly win shares was 1.4, meaning that many rookies produced nothing of value, with 40 percent of those that played producing between -2.2 and 0.47 win shares.[32] NBA teams who draft and develop players consistently are able to use precious salary cap figures on veterans, whose contributions are far more expensive given their relative stability. One team that has done this effectively, helping its standing as a model NBA organization, is the Golden State Warriors. With rookie contract players like Klay Thompson and Draymond Green producing a combined 10.9 win shares per Basketball Reference, they were free to sign versatile veteran Andre Iguodala in the summer of 2013, who would later become 2015 Finals MVP. Moreover, the most valuable currency in the NBA is young stars, which teams can leverage in transactions. The Oklahoma City Thunder, which has produced too many stars than it can pay given the salary cap and their small-market revenue, traded James Harden and Reggie Jackson, netting valuable role players like, Steven Adams and Enes Kanter. These players complement the team's core talents, Kevin Durant, Russell Westbrook and Serge Ibaka. Given that value paradigm, one can see how NBA teams not only benefit from their own development practices, but also the success of the domestic development pipeline.

**Current Domestic Pipeline**

The NBA's development structure consists of multiple stages throughout a player's life. At most points until one is drafted, the primary path runs through schools.

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[32] Detailed figures available in Appendix A

At the highest level is college basketball through the National Collegiate Athletic Association, or NCAA. High school basketball leads into the NCAA and is overseen nationally by the National Federation of State High School Associations, NFHS, to which state associations, local leagues, and districts belong.[33] One can also access competitive basketball through non-scholastically affiliated organizations like the Amateur Athletic Union (AAU). School-aged children can also participate in leagues of varying levels of competitiveness, like the Catholic Youth Organization (CYO) and the YMCA. Most aspiring American players compete in a both high school and AAU basketball before moving onto college, though some have forgone college to compete professionally overseas, most notably Brandon Jennings and Emmanuel Mudiay. Additionally, a fair number of foreign prospects attend American colleges in order to play basketball while getting used to the culture and making themselves more accessible to scouts. For instance, due to the low salaries and level of play in the NBL, Australia's professional league, many Australian basketball players attend American colleges, having finished their training at the Australian Institute of Sport. The most well-known of these players are Andrew Bogut, Matthew Dellavedova, and Patty Mills. Foreign players are becoming more common in the American college ranks, as colleges continue to expand their worldwide scouting.[34]

USA Basketball is a central organization involved with all ages of basketball, however, only on a small scale. Outside of its four junior national teams, USA

[33] "Basketball." Basketball. NFHS, 2015. Web. 13 May 2016.
[34] Greer, Jeff. "Foreign-born Players Becoming More Commonplace in College Basketball." The Courier-Journal. 25 Dec. 2013. Web. 13 May 2016.

basketball offers three-day skill development camps[35]. They offer coaching certification

and a coaching academy, for which sessions last two or three days and are available in

four cities. The program just finished its inaugural iteration, in which each academy

taught a slightly different curriculum.[36] One can complete the certification by creating

an online profile and taking two 90-minute online courses: USA Basketball

Development Course and SafeSport.[37] Once a coach passes a background check and

pays a fee, they receive USA Basketball certification, which is not a prerequisite to

coaching at any level. The Open Court initiative, which is free for participants aged six

to 17, aims to "to encourage creativity, free play and fun.[38] Open Court sessions are

designed to emphasize the concept of playground basketball."[39] Behind these sessions is

the USA Basketball Youth Development Guidebook, which includes four phases of

player development, each with broad recommendations on play level, practice-to-play

ratios, and a great deal of sample practice drills. Open Court incentivizes participation

through a points and prizes system; children receive points for attending Open Court

sessions and bringing friends, which they can redeem for prizes ranging from water

bottles to duffle bags.[40] The sessions are conducted by court monitors, who "offer

different options to participate in basketball activity such as stations, 3x3 and small

sided games, 5x5 competition and other basketball related games."[41] However, this

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[35] "USA Basketball." - National Governing Body for Men's and Women's Basketball in the United States. 5 Jan. 2016. Web. 13 May 2016.
[36] "2015 Youth Coach Academy Recaps." 2015 Youth Coach Academy Recaps. 5 Jan. 2016. Web. 13 May 2016.
[37] "Why Become a Licensed Coach?" USA Basketball Youth Development. 5 Jan. 2016. Web. 13 May 2016.
[38] "Open Court Program." Open Court Program. 5 Jan. 2016. Web. 13 May 2016.
[39] Ibid.
[40] Ibid.
[41] Ibid

program has also just started, offering sessions in New York, Los Angeles, and

Chicago.

For middle and high school basketball teams, games are played during the

winter months, with most high school teams playing anywhere from 30 to 50 games and

middle school teams competing in 20 to 35 games.[42] Teams hold practices after each

school day, with many competitive teams adding a weekend practice, especially at the

high school level. Many competitive high school teams hold workouts in the summer

and fall, but athletes are generally free to participate in other sports and activities. Many

teams participate in tournaments which require travel of varying distances. Some teams

fly across the country, while some restrict play within cities or regions. The most high-

caliber teams often travel farther in order to face similarly-talented completion.

Additionally, public and private schools will typically have district and conference

playoffs, respectively. AAU basketball is primarily a summer activity, where teams

mainly travel to tournaments and practice an indeterminate amount of times per week.

Since the AAU rules do not specify regulations, each team is left to its own discretion in

terms of practice frequency.[43] Steve Turner, head coach of Gonzaga College

Preparatory School in Washington, DC, also coaches an under-12 AAU team and has

coached at higher AAU levels in the past. According to Turner:

> "AAU...gives a kid opportunity to test himself against his peers...especially if
> you're not in a [high school] program that travels,...and have the opportunity for
> the masses to see you...It's an opportunity for kids to showcase
> themselves….AAU is a great thing, it's the fun time for the kid, because there's
> not [school] involved, so it's a little more glamorous at times, than high school
> basketball. Which I think is a shame..."[44]

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[42] Based on schedules of Gonzaga College Prep, Findlay Prep, DeMatha, and Bishop Gorman High
[43] "Boy's Basketball Handbook." AAU. Amateur Athletic Union, 2015. Web. 19 Feb. 2016.
[44] "Turner Thesis Interview." Personal interview. 21 Dec. 2015.

As Turner identifies, AAU games also provide athletes with exposure to college and NBA scouts, since AAU tournaments tend to attract many of the top players in the country during the NCAA and NBA offseason. The Amateur Athletic Union, which has "nearly 700,000 members" and "generate[s] more than $20 million a year," does not run each individual team in concert, rather, each team operates outside of the purview of the AAU, but for competition registration and background checks.[45] Teams are owned and operated by a number of different types of organizations which typically operate as nonprofits. Of the top 20 teams in the AAU's under 17 division, two operate with funding from professional players, like the King James Shooting Stars and Team Manimal, which are funded by LeBron James and Kenneth Faried, respectively. Coaches and other administrative personnel conduct most of the organization of the remaining teams, for which player fees and sponsorships provide operating revenue. Youth sports site Quad-City Varsity estimates that players and their families "can expect to pay $400 to $4,000 per summer to play."[46]

Middle school players transitioning to high school basketball generally get to know the potential high school or AAU coaches during the end of their middle school tenure. Turner characterizes this as a "courtship period," which allows coaches and players to become comfortable with one another, "trying to make sure it's the right fit."[47] As is common with many private schools, Gonzaga holds an open house for prospective parents and students, as well as allowing students to take day-long shadow

[45] "Former AAU President Received $1.5 Million to Leave amid Scandal." ESPN. ESPN Internet Ventures, 15 Nov. 2015. Web. May 2016.
[46] "Bottom Line: AAU a Money Machine." The Quad-City Times. Web. 13 May 2016.
[47] "Turner Thesis Interview." Personal interview. 21 Dec. 2015.

visits at the school.[48] However, it is common for players in high school to transfer at least once from a smaller school in their hometown to a larger school with more tradition and exposure, like Oak Hill Academy or Montverde Academy. Many players have taken this path, like Carmelo Anthony and Kevin Durant. Another common reason for high school transfers is that many prospects are in the middle of their growth spurts and physical development, so identifying top prospects at age 13 remains tough. For that reason, a player may show up on the radar of a top school, like Oak Hill, at age 16 rather than age 13. The transition between high school and college is far more structured, with NCAA regulations dictating how and when colleges can contact prospective recruits. High school coaches like Steve Turner try to ease the transition for their players. Turner and his assistants "visit a lot of colleges, so [they're] always trying to find out what [college coaches] are doing...to try to implement it at [the high school] level, so that [the] kids are ready for what they're going to see at the next level."[49] In explaining some of the off-court difficulties players can face moving into college basketball, Turner notes that high school players have a "daily grind," but "in college, there's a lot of empty space...So while [players] are having to learn time management [in high school], it's a different time management [in college] because they're given a lot more free time."[50] Turner holds mandatory study hall sessions for his Gonzaga players, building up their working habits, hoping to ease their college transition.

Now that the NBA has restricted high school players from entering the draft, the vast majority of American prospects play in college after high school. Cases like

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[48] Ibid.
[49] Ibid.
[50] Ibid.

Brandon Jennings and Emmanuel Mudiay represent an exception to the rule, as each

forged a path overseas due in part to dubious NCAA eligibility standing.[51] The NCAA

permits coaches and recruiters to contact high school prospects during their junior and

senior years, leaving ample time for the player to get to know a coaching staff. To

Coach Turner, this courtship is also key, "it's important for the kids to be able to know

that the place they're going, that they're going to be comfortable, and vice versa, the

coach needs to feel comfortable."[52] Turner sends out a preseason profile on his players

every year, "trying to promote them...almost like a teaser," as well as sending out the

team's schedule.[53] Additionally, players may take campus visits, where they can meet

potential teammates and tour the campus. Transfers are increasing in frequency in the

NCAA, however, for a variety of reasons including playing time considerations and

coaching departures.[54] All players are eligible for the NBA Draft after their freshman

year, including those who do not play due to suspension or ineligibility, like Ricky

Ledo, formerly of Providence, who was ruled academically ineligible to play during his

freshman season.[55] If they think they have a chance to be selected, prospects can declare

for the Draft with a deadline for withdrawal. However, players who hire an agent are

automatically ineligible to return to the NCAA, because of its amateurism requirements.

A new rule allows players who enter the Draft without an agent to attend the NBA

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[51] "Those Two Years Spent at Prime Prep Put Emmanuel Mudiay in a Tough Spot." CBSSports.com. July 14. Web. 13 May 2016.
[52] "Turner Thesis Interview." Personal interview. 21 Dec. 2015.
[53] Ibid.
[54] Neddenriep, Kyle, and Zack Osterman. "Number of College Basketball Transfers Escalating for Various Reasons." Indianapolis Star. 25 Apr. 2014. Web. 4 Jan. 2016.
[55] Lombardi, Matt. "Providence's Best Recruit In Years, Ricky Ledo, Declares For The NBA Without Even Playing A Game For The Friars." College Spun. 2013. Web. Feb. 2016.

Combine as well as workouts with teams, and still return to school.[56] Another wrinkle in this system is the relatively new possibility of players entering the NBA D-League directly after high school or after college. Most recently, P.J. Hairston joined the D-League after being dismissed from North Carolina, before being drafted late in the first round. However, this, too, is an uncommon option.

Only 60 players are selected in each draft, which breaks up into two rounds of 30 picks each, but there are opportunities to break onto a team's roster through the Summer League, for which teams sign many undrafted free agents. Players taken in the first round are guaranteed contracts in designated salary slots for two years, with a two-year team option at the end of the contract.[57] The lowest first year salary slot in the first round is just under $1 million, which goes to the 30th pick.[58] Players selected in the second round are provided non-guaranteed two-year contracts of $500,000 per year.[59] While they are not paid as highly as their first round counterparts, second round picks can reach a potential payout in free agency two years sooner. Notable second round picks who have capitalized on this early access are Draymond Green and Chandler Parsons, who signed contracts worth a total of $82 million and $46 million, respectively.[60][61] There are also those players, like Patrick Beverley, who are not drafted and decide to play overseas after college in order to continue their career and development. After playing collegiately for Arkansas for a year and a half, Beverley was expelled for academic dishonesty because he "handed in a paper that wasn't

[56] "Cat Barber to Remain in NBA Draft, Skip Final Season at NC State." ESPN. ESPN Internet Ventures. Web. Apr. 2016.
[57] "NBA Rookie Scale - RealGM." NBA Rookie Scale - RealGM. 2016. Web. Jan. 2016.
[58] Ibid.
[59] Ibid.
[60] "Draymond Green." Spotrac.com. Web. Jan. 2016.
[61] "Chandler Parsons." Spotrac.com. Web. Jan. 2016.

[his]."[62] After playing for three years in Europe, Beverley returned to the United States

on a multi-year contract with the Houston Rockets. Since then, he has been known as a

fantastic defensive player and a great complement to superstar backcourt fellow James

Harden. In Beverley's case, his salary with Spartak St. Petersburg of $3.4 million over

three years was far more than the maximum D-League salary of $25,000, making it

more attractive for him to leave the American development pipeline.[63] Alternatively,

some players, namely Jon Leuer and P.J. Tucker, will stick on an NBA roster, only to

see little playing time and sign overseas before returning to the NBA with a refined

game. Playing time seems to be the primary driver of these decisions, with more

repetitions available overseas. The NBA's current domestic development pipeline

consists of several different structures, each serving a specific purpose and offering

different, but overlapping benefits to players. This disjointed structure, and the manner

in which certain actors are incentivized, creates several problems for player

development, which will be outlined in the following section.


**Problem Presentation**

*Stan Van Gundy's Thoughts*

  Stan Van Gundy, coach and president of the Detroit Pistons, gave this diatribe

on youth basketball during his tenure as coach of the Miami Heat. He outlines a few of

the issues surrounding American youth development, speaking from direct experience

in the lowest and highest levels of basketball.

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[62] Powers, Scott. "Tough Lesson Learned." ESPN. ESPN Internet Ventures, 2009. Web. Mar. 2016.
[63] Scholosser, Keith. "Has the Maximum NBA D-League Player Salary Increased?" Ridiculous Upside. 2014. Web. Feb. 2016.

"From a basketball sense, for just skill development…that's going to start at a very young age and is going to be determined at a very young age. We're failing pretty badly in this country, as a whole, in teaching basketball skills. You all notice it that watch the NBA, because there's a huge difference in the skill level between the players that come from Europe and [American players], in terms of their ability to pass the ball and shoot the ball. We're not developing skills here. One of the reasons is, we are much more interested in playing games – in winning and losing – than we are in skill development. You have to make a decision if you want to teach the kids how to play basketball or if you just want to win games, because there's a big difference...[While coaching my 12-year-old daughter and 9-year-old son] I saw got to see every approach. Of the 18 teams, there were two coaches really trying to teach skills and everyone else was just trying to win a game: leave your best players on the court as long as you can, play *zone* defense for God's sakes, it was beyond me, in a 9-year-old league play zone defense for the entire game. Never let your biggest kids dribble the ball, make sure they give it to a guard…so they can run it up the floor. And then we wonder why, at the high school level, we have so many kids who can't play and we never have a 6'5", 6'6", 6"8' kid who can dribble, pass, and shoot, because at young age, you tell him to stand under the basket, and get the rebound, and give it to somebody else. So [coaches] have a decision to make, do [they] want to build basketball players or do [they] want to just tell everybody [they] won the youth league?"[64]

*Case: Prime Preparatory Academy*

Prime Prep Academy, co-founded by former NFL and MLB player Deion "Primetime" Sanders, was a charter school program with athletics ambitions and multiple campuses. It lasted only three years, "collaps[ing]…under the weight of financial mismanagement".[65] Often the site of Sanders' reality TV show, Prime Prep was ranked the worst elementary school in North Texas at one point.[66] [67] According to one *Dallas News* report, the school "failed to fingerprint and conduct background

[64] Seepersad, Dave. "Miami Heat - Stan Van Gundy - Expectation to Win." Youtube. Youtube, 19 Apr. 2008. Web. Jan. 2016.

[65] Mosier, Jeff. "Prime Prep Shuts Dallas and Fort Worth Campuses amid Steep Debt." The Dallas Morning News. 2015. Web. Feb. 2016.

[66] Ibid.

[67] Martin, Amy. "Deion Sanders Demanded a Raise, Threatened to Break Prime Prep CEO's Neck (Audio NSFW)." Dallas Observer. 2014. Web. Feb. 2016.

checks on 17 employees, including co-founder Deion Sanders."[68] The program dealt in

drama seemingly made for TV, as Sanders was accused of choking former CEO D.L.

Wallace in an invective for "more power and more money."[69] Though this tirade did not

make the reality show, it was captured on audio and published by the *Observer*.

According to the Texas Education Agency, "the school's athletic expenses and revenue

weren't included in the regular finances and were diverted through a separate bank

account."[70] After falling $710,000 in debt, Prime Prep was closed, which caused an

extreme amount of stress for kids and parents. Due to poorly kept records and records

seized by the TEA, children transferring to other schools have had difficulty locating

their test scores.[71] In fact it was the time he spent at Prime Prep that caused Emmanuel

Mudiay's dubious NCAA eligibility, leading to a year spent playing professionally in

China rather than in college.[72] The story of Prime Prep encapsulates many of the

problems in America's youth athletic complex by demonstrating the danger of placing

too much emphasis on sports and letting other interests like academics go largely

unaddressed. These problems mostly stem from the fact that there is not an organized

youth sport initiative.

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[68] Mosier, Jeff. "Prime Prep failed to conduct background checks on 17, including Deion Sanders." The Dallas Morning News. 2015. Web. Feb. 2016.
[69] Ibid. Observer.
[70] Mosier, Jeff. "Prime Prep Academy Troubles Continue after Closing." The Dallas Morning News. 2015. Web. Feb. 2016.
[71] Ibid.
[72] "Those Two Years Spent at Prime Prep Put Emmanuel Mudiay in a Tough Spot." CBSSports.com. July 14. Web

*Case: Montrose Christian Academy*

Even in established schools, basketball programs have taken on a life of their own in a manner that harms the school, and often the players. Montrose Christian had been a national basketball powerhouse since coach Stu Vetter took over almost 18 years ago, when enrollment was declining and the school's future was in jeopardy. After Vetter signed on, the school went on to produce hordes of college and NBA players, among them, Kevin Durant, Greivis Vasquez, and Terrence Ross. "Vetter's Nike sponsorship deal" provided players the freshest jerseys and shoes while the school's visibility skyrocketed.[73] Unfortunately, the shine of the basketball team created more problems for Montrose, from which many were blinded. According to a former employee, Montrose had become "a small church with a megachurch's expenses."[74] A pastor who led the school and the adjoining church used part of a $1.35 million fund to pay for personal expenses, earning a "37-month prison sentence."[75] Highlighting the unrest is the fact that "a school nurse was elevated to lead the school at one point."[76] Vetter has since left Montrose, taking everything Nike had provided him. Sonny Vaccaro, famed Nike executive, reflects that "Montrose was doomed to die a slow death."[77] After all, Nike's payments and contributions were made to coach Vetter, not the school, itself. Currently, Montrose is listed for sale and is fighting to remain an accredited educational institution.[78] Those who played for the basketball team while it was abated had to transfer, having not experienced the same basketball wonderland that

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[73] Babb, Kent, and Mark Giannato. "When a Prep School Built on Basketball Turns Away from the Sport, What's Left?" Washington Post. The Washington Post, 2015. Web. Feb. 2016.
[74] Ibid.
[75] Ibid.
[76] Ibid.
[77] Ibid.
[78] Ibid.

existed under Vetter and Nike. When referring to how the decision to become a

basketball brand by bringing in coach Vetter, then-headmaster Scott Barron noted,

"sometimes when you make those decisions, you don't think much about the

unintended consequences of it."[79] To Montrose, the unintended consequence of hiring

Vetter was that 18 years later, the school and church were in worse shape.


*Case: DC Assault*

The case of Michael Beasley, current Houston Rockets forward who played for

the DC Assault AAU team, provides a look at how the NCAA ranks can be affected by

lower level improprieties. The Washington Post once described his high school

basketball career as "a six-school, five-state odyssey" during which Beasley said he was

"just killing time."[80] Beasley attended Kansas State University despite being from

Prince George's County, Maryland, well outside of Kansas State's typical recruiting

pipeline. Beasley ended up with Kansas State after the school hired former DC Assault

coach Delonte Hill to an assistant coaching position for a yearly salary over $420,000

because then-coach Bob Huggins "wanted Beasley."[81] This salary would have slotted

Hill as the 49th highest paid head coach in the 2015 NCAA tournament, according to

data provided by USA Today Sports.[82] In addition to the apparent 'packaged deal,'

Beasley alleged that the Joel Bell, president of the agency Bell Sports, paid for his

mother's relocation to Kansas, using DC Assault personnel "as a conduit" to pay her

[79] Ibid.

[80] Saslow, Eli. "For Beasley, It's a Jumping Point." Washington Post. The Washington Post, 2007. Web. Feb. 2016.

[81] Bennett, Craig. "Michael Beasley Claims His Family Received Impermissible Benefits." USA Today. Gannett, 2011. Web. 13 May 2016.

[82] "USA TODAY Sports." NCAAB Salaries. Web. Feb. 2016.

living expenses.[83] This arrangement, however, pales in enormity to the overall story of

DC Assault and its president Curtis Malone. "For more than 15 years Malone ran the

vaunted DC Assault AAU program, producing three NBA lottery picks, helping

hundreds of players land Division I scholarships, and receiving millions of dollars from

apparel companies."[84] However, Malone was also making large sums of money king-

pinning a crack-cocaine and heroin operation in Washington, D.C. which extended into

Baltimore. A *Sports Illustrated* article outlining the fascinating story of how Malone

used his "charisma, street savvy, discretion and organization" to take over D.C.-area

youth basketball was released in August of 2014.[85] From the article:

> "Malone quickly grasped that in the essentially unregulated youth basketball
> world, the key is to acquire talent, because talent provides exposure, credibility
> and leverage, including access to college coaches, sneaker companies and NBA
> agents. 'I ran my program as an amateur program,' says Rob Jackson, who
> oversaw the rival DC Blue Devils. 'He ran his as a business. He sold kids to
> schools, sold kids to agents.' Malone denies ever selling a player."[86]

Some see Malone's actions in the light of Robin Hood, selling "drugs only to pay rent

for needy players' families."[87]The unfortunate reality is that running a nationally

renowned AAU team costs a great deal of money which players seldom possess. The

comments of Rob Jackson underscore the price many AAU players pay for their

participation: the ability of the coach to select a player's agent, college, and shoe

sponsor, all for a not-so-nominal finder's fee. Nevertheless, Malone passed the AAU's

background check and was able to run a team that resembled an empire. In the end, DC

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[83] Bennett, Craig. "Michael Beasley Claims His Family Received Impermissible Benefits." USA Today. Gannett, 2011. Web. 13 May 2016.
[84] Thamel, Pete. "Community Leader or Drug Dealer? Curtis Malone's True Motives Are Still a Mystery." Curtis Malone's Two Businesses: AAU Basketball and Drugs. 20 Aug. 2014. Web. Feb. 2016.
[85] Ibid.
[86] Ibid.
[87] Ibid.

Assault fell apart and Malone was sentenced to 100 months in prison.[88] And what of

Michael Beasley, former DC Assault standout? He was selected by the Miami Heat with

the second overall pick in the 2008 Draft, but since then has bounced around to several

teams before playing in China last year at the age of 26. Toward the end of the past two

seasons, he has been picked up by two different NBA teams and currently plays around

20 minutes per night for the Rockets. At Malone's sentencing, judge Ellen Huvelle

remarked, "The irony is the very community you sought to help, you hurt."[89]


*Case: Play Their Hearts Out and the Inland Stars*

A second case study outlines the slightly less dramatic, but far more common let

down of AAU programs. In an article for *SB Nation*, Jonathan Tjarks summarizes

George Dohrmann's 2010 book, *Play Their Hearts Out*. The book follows the story of

an ambitious AAU coach, Joe Keller, who wants his team, the Inland Stars, to win the

AAU's under-13 national championship in order "to attract the attention of the shoe

companies."[90] The Stars win the tournament, as "Keller frantically yell[s] and scream[s]

during every play."[91] Subsequently, Keller signs on for the club to represent Adidas, the

team's star player, Demetrius Walker lands on the cover of *Sports Illustrated*.[92]

Previously an "unselfish and always smiling kid," Walker ends up "believing his own

hype and distancing himself from his teammates."[93] Moreover, once the hype subsides

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[88] Ibid.
[89] Giannatto, Mark. "Curtis Malone, Co-founder of D.C. Assault AAU Program, Sentenced to 100 Months in Prison." Washington Post. The Washington Post, 2014. Web. Feb. 2016.
[90] Tjarks, Jonathan. "AAU Basketball From The Inside Out: 'Play Their Hearts Out' Digs Into The Trouble With Amateur Hoops." SBNation.com. 2011. Web. Feb. 2016.
[91] Ibid.
[92] Ibid.
[93] Ibid.

and the talents of his peers start to mirror his own, Walker is left "hiding in the bathroom during Keller's All-Star camp, afraid to test his game against his developing peers."[94] Tjarks notes that the rest of the Inland Stars experience similar plight, as they sustain or retread their previous success. After high school, Demetrius Walker committed to play at Arizona State, then transferred to New Mexico where he was dismissed by coach Steve Alford.[95] He then transferred to Grand Canyon of the Western Athletic Conference, and was dismissed again, this time by coach Dan Majerle.[96]

*Case: Creighton and Kevin Ross*

Kevin Ross, who played basketball collegiately at Creighton University from 1979 to 1982, gave ESPN's Outside the Lines an inside look at just how badly the results of this misalignment can be. Functionally illiterate throughout his high school and college career, Kevin Ross entered Creighton with an ACT score of nine of 36, despite the fact that "the average score for incoming Creighton freshmen was 23."[97] Ross said of taking exams, "it's already done and all I had to do was fill my name."[98] Unfortunately, Creighton did not push him all the way through school after his basketball career ended; "my last semester of my senior year that's when I got my Fs and my -- and my Ds because they didn't have no more use for me."[99] Ross ultimately ended up back in elementary school at the age of 23, where he "jumped 11 grade levels in reading" in nine months. But after struggles with depression and substance abuse,

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[94] Ibid.
[95] Doyle, Kevin. "Demetrius Walker and Jeff Lowery Dismissed from Grand Canyon Team." CollegeBasketballTalk. 2013. Web. Mar. 2016.
[96] Ibid.
[97] "Outside the Lines: Unable To Read." ESPN. ESPN Internet Ventures, 2002. Web. Mar. 2016.
[98] Ibid.
[99] Ibid.

Ross had not received a college degree by the time the OTL piece aired in 2002, twenty years after his senior season of Creighton basketball.

*Case: The Spurs Way*

As focuses on winning, glamour, and apparel contracts fuel the expectations of coaches, parents, and the players, themselves, many end up in the NBA with attitudes that are less than becoming. In 2013, the NBA world was most recently reminded of the power of the 'Spurs Way.' ESPN Senior Writer Seth Wickersham penned a piece outlining the reasoning behind the Spurs signing so many international players. There is a certain *Moneyball* logic in play, where general manager R.C. Buford and coach Gregg Popovich "go somewhere other teams aren't, find talent nobody else finds."[100] However, the second half of the thought process reflects the Spurs' tacit understanding of another scouting truth, "that…America's youth basketball pipeline has produced a type of player that Pop has no interest in coaching."[101] In the article, Buford goes on to describe "the slow and steady crumble of American grassroots basketball: loafing, lousy fundamentals, a pervasive disinterest from players in showcasing anything but themselves."[102] Popovich dives in further driving this point home, going so far as to say that "foreign players are 'fundamentally harder working than most American kids.'"[103] Wickersham goes on to explain that some American "players aren't raised to handle criticism, which is as amplified on the biggest stage as it is unalterable."[104] This assessment has provided the Spurs with a competitive advantage, because, "as Buford

[100] Wickersham, Seth. "Made Not in America." ESPN. ESPN Internet Ventures, 2013. Web. Mar. 2016.
[101] Ibid.
[102] Ibid.
[103] Ibid.
[104] Ibid.

says, the NBA is 'the end of the road for the developmental habits that are built in the less-structured environment in the U.S.'"[105] The Spurs posit that the culture surrounding American basketball has as much, if not more, to do with their habitual importation than strict skill development. Selfishness, baked into American basketball through the opulent awe of "money and fame," has permeated the youth basketball culture, leaving the American junior national teams bereft of the team play needed to win on the international stage.[106] While winning junior championships at the under-20 level should not take precedence over developing skills, such accomplishments certainly stand as symptoms of good youth development and culture. Buford's take is similar, "that's a statement about where we are, when we put our best players together, we aren't playing well."[107]

The U.S. Olympic team experienced the same let down in the early 2000's, as the 2002 world championship team failed to medal and the 2004 Olympic team finished with only a bronze.[108] [109] This paved the way for the LeBron James-led Redeem Team in 2008, which brought team basketball, and gold medals, back to the American international stage. Many, including NBA.com reporter Scott Howard-Cooper, claimed that the results in 2002 helped "change U.S. basketball" away from the "All-Star game mentality" which led to so much disappointment.[110] However, while Carmelo Anthony and others accept smaller roles for Olympic success, this change has not reached the

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[105] Ibid
[106] Ibid.
[107] Ibid.
[108] Howard-Cooper, Scott. "NBA.com: My Favorite Moment: 2002 Worlds Changed U.S. Basketball." NBA.com. 2010. Web. Mar. 2016.
[109] "2004 United States Men's Olympic Basketball | Basketball-Reference.com." Basketball-Reference.com. Web. Mar. 2016.
[110] Ibid. Howard-Cooper, Scott.

youth levels with enough depth. A telltale sign of such selfish play is when the ball

'sticks' in one player's hands rather than crisply popping in and out of each player's

possession, which tends to massage holes out of a defense.[111] For Popovich, "the ball

often stick[s]," in America, whereas European players "appreciate things more" and are

"very coachable."[112] These attitude issues are not unpredictable given the structure of

the current system. As AAU coaches lure young talent with the promise of landing them

in the NBA, college coaches must play the same recruitment game. After all, reaching

the NBA is the point at which a talented player finally receives monetary recognition of

that talent. As youth players increasingly see the AAU and NCAA as vehicles to the

NBA rather than opportunities to refine their skills, many college coaches must kowtow

to players rather than "convince McDonald's All Americans of the glory in passing and

defense."[113] Wickersham attributes coaches' "lack of [job] security, and the one-and-

done rule" as NCAA and NBA regulations which lead coaches "to compromise their

playbooks, if not their ethics, to land top talent."[114] As the average career of NCAA

players shortens, college coaches' success, and job security, becomes more dependent

on recruitment than development. Wickersham's article points to how the Spurs have

discovered the increasingly apparent results of the unintended consequences of the

American youth sports model.

**Analysis of Current System**

The path to an NBA roster and success is an improbable and winding one. All

players are affected by inefficiencies which exist at multiple levels of the current

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[111] While isolation-heavy basketball can win games at the NBA level, the style is not as replicable without a transcendent talent like Jordan, Bryant, or LeBron
[112] Ibid. Wickersham, Seth.
[113] Ibid.
[114] Ibid.

American model. Youth sports, through which athletes form their mental, physical, and technical foundations, are a source of many of these issues for children. Basketball is a late development sport, which means that athletes are not able to develop basketball-specific skills until late in life.[115] In fact, most of the peak periods of trainability for attributes like speed, coordination, and strength occur before an athlete reaches the professional ranks, making proper athletic training crucial during these periods. Accordingly, many of these matters stem from the lack of consistency in coaching education at the youth level. Coach Bev Smith, who played and coached basketball at the University of Oregon, is enshrined in the Canadian Basketball Hall of Fame, and is the current director of KidsSports in Eugene, Oregon, explains that "you're only going to be as successful as you have with coaching."[116] Having helped design Canada's Long Term Athletes Development basketball model, Smith is well aware of the problems facing American youth development, above and below the Canadian border. In fact, many youth basketball associations, including the YMCA, AAU, and many of those attached to schools, do not require coaches to be certified in the practices of coaching. This results in many consequences, like the improper training of young basketball players as well as the illogical structure of many youth leagues.

Per Kevin McShane, soccer coach at St. Alban's School in Washington, D.C. and author of *Coaching Youth Soccer: The European Model*, American coaches tend not to teach information for all learning types, leaving many concepts not fully understood by all players.[117] Coach Smith stresses that many coaches run practices in a

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[115] Ibid. LTAD. P. 16
[116] "Bev Smith Thesis Interview." Personal interview. 4 Dev. 2015.
[117] McShane, Kevin. "Coaching Youth Soccer." Google Books. Web. Jan. 2016.

manner which simply scales down adult training activities for children rather than

adapting proper children's activities to basketball.[118] Smith defines development as

"working within what the child is open to learning at that point," an axiom which many

organizations do not currently follow.[119] By trying to develop children primarily as

basketball players, coaches miss the windows of maximizing a child's athletic potential,

which shortchanges their potential as basketball players down the road.[120] Here, it is

important to understand that building one's athletic abilities allows one to maximize

one's skills.[121] For instance, shooting requires athletic abilities like balance,

coordination, and straight line accuracy. If a child does not maximize the potential of

these physical skills, technical skills like shooting will be harder to train.[122] Moreover,

"a lot of chronic injuries are based on the non-development of [one's] athletic

house...Some of the hardest things are rhythm...or decision-making."[123] Coaches at all

levels need to be instructed in these finer points of coaching, which is something that is

not currently required on any widespread level. The shortcomings of coaches in these

areas trickle down to players, a point which Stan Van Gundy emphasizes in his youth

development speech.

The structure of youth leagues also supplies a list of problems which create a

suboptimal environment for personal, athletic, and scholastic development. Coaches,

especially the most ambitious ones, are incentivized to win as many games as possible.

As seen in the Inland Stars and DC Assault cases, winning championships leads to

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[118] Ibid. Bev Smith Interview.
[119] Ibid.
[120] Ibid.
[121] Ibid. LTAD. P. 16
[122] Smith, Bev. "Follow Up Questions." Message to Connor Williamson. Apr. 2016. E-mail.
[123] Ibid. Bev Smith Thesis Interview.

sponsorship contracts for operating revenue. Assistant General Manager of the D-League's Texas Legends and former AAU coach Travis Blakeley often "scratch[es] [his] head at certain programs focused primarily on playing every weekend," with "parents and coaches...thrusting [players] into competition multiple times a week and multiple tournaments a month." In the estimation of Blakeley and many others, this game-heavy schedule dictates that "skill development isn't placed on the pedestal it deserves."[124] It should be noted that basketball is a competition, something which seemingly necessitates defining a winner and a loser. Obviously one would prefer to win than lose, so that is a natural inclination. However, this also reflects an imposition of adult training and playing paradigms on younger players, which, in turn, hurts their long term development. "It's important for the system to be child-focused rather than business-focused," so the emphasis on winning as a means to business ends actually hurts the development of athletes.[125]

To compound this problem of athletic development, young athletes are specializing very early in sports like basketball, which has been shown to hurt long term development in most cases. Coach Turner has noticed this trend "in all sports, basketball, football, soccer, lacrosse."[126] Turner theorizes that "the kids who cross-train in multiple sports are not the kids you're seeing with injuries, [with one sport], you see more injuries because you're pounding the same muscles constantly."[127] While the

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[124] "Blakeley Thesis Interview." Personal interview. 27 Feb. 2016.
[125] Ibid. Bev Smith Thesis Interview.
[126] Ibid. Turner Thesis Interview.
[127] Ibid.

dangers of uneven athletic development and burning out on a sport are well-

documented, Blakeley defines other issues with early specialization.[128]

> "[Players] develop, in some cases, a lack of toughness, a lack of mental fortitude
> to push through because [their] experience is only limited to that one sport. If
> you find yourself in a moment where you haven't had success before, then you
> only revert back to negativity. But perhaps by playing multiple sports and
> having success in other areas, you're able to find a parallel that allows you to
> push through."[129]

Furthermore, because winning is emphasized so heavily, player roles and positions are

defined far too early. This is reflected in the Stan Van Gundy speech, that the biggest

children at every age level are generally made to play the post positions and do not

develop skills like ball handling, shooting, or reading the court. Blakeley elaborates on

this problem explaining that,

> "What we have at youth level and high school level, collegiately, is that when
> these kids are big and they're big early, they're often just thrown in. And they're
> not trained in the same way certain other players within their team and within
> their age group. They're not taught how to handle the ball in tradition or at high
> rates of speed. They are not taught how to shoot properly, they're taught, you
> know, basically how to run and defend and, at times just gather the rebound and
> put it back." [130]

In the NBA, one place to notice this lack of skill is in the number of European big men

in the NBA proportional to the number of European guards. Of qualified players who

played over 750 minutes in the 2015-16 season, 35 percent of post players are foreign,

while 16 percent of perimeter players are foreign.[131] This discrepancy explains as much

about American training as it does about European methods. Since American bigs

commonly lack the passing, shooting, and ball handling skills prevalent in their

European counterparts, NBA teams more routinely select European postmen over

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[128] Ibid. LTAD. P. 16
[129] Ibid. Blakeley Thesis Interview.
[130] Ibid.
[131] Graph can be found in Appendix B

American ones. Conversely, guards in the United States do grow up with those skills, since they are traditionally associated with the guard position, and therefore, a smaller proportion of European guards play in the NBA because they do not enjoy development advantages. Of course, height is highly variable while children mature, especially during pubescent growth spurts. So even if one posits that post players need not develop a full range of skills, which is increasingly inaccurate in today's NBA, those 6'2" sixth graders may turn into under-skilled 6'3" adults with no professional prospects. Furthermore, those who do end up reaching the requisite size to become NBA big men are less skilled than they would be otherwise. With mountainous playmakers like Giannis Antetokounmpo and Draymond Green taking the league by storm, these skills are highly valued for all players, especially bigs. As the basketball cliché goes: skill beats size, but skilled size always wins.

In a relatively recent Lowe Post podcast, Shane Battier and host Zach Lowe discussed the lack of imagination of NBA big men, as well as the lost art of the back screen, and the increased difficulty of entry passes given new off-ball help defense techniques utilized in the NBA.[132] In the Modern NBA Coaching panel at the 2016 Sloan conference, former NBA coaches Scott Brooks and Mike Brown theorized that the dearth of low post play in the NBA results from a lack of post-up skills in the player market.[133] Poor coaching at the youth level may be the root of that problem, as coaches develop basketball skills before rounding out players' athleticism.[134] Adds Blakeley, "that started such an early age now where kids are being asked to specialize in one sport

[132] "The Lowe Post – Shane Battier." Interview. Audio blog post. ESPN. ESPN, 10 Sep. 2016. Web. Sep. 2016.
[133] Brooks, Scott. Brown, Mike. "Modern NBA Coaching." Proc. of Sloan Sports Analytics, Boston, MA.
[134] Ibid. Bev Smith Thesis Interview.

instead of playing many sports, developing multiple athletic abilities."[135] Because of an

emphasis on playing games and not practicing, "players that grow up through the game

with massive holes in their games. They have one particular skill that's elite, but there

are several that are lacking."[136] Another point that Van Gundy highlighted was the

prevalence of over-coaching at the youth level, which does not allow players to practice

decision-making, according to Bev Smith.[137] "When you give a test in your classroom,

you can't go around telling kids what to do and how to do it...we don't teach kids to

make decisions anymore, we don't teach reads."[138] Again, the motivation to win fuels

coaches to employ advanced strategies even at the middle school level. Van Gundy

points to the use of zone defense, which is seldom used at the NBA level, as a detractor

from the development of players who have yet to master the principles of man defense,

a far more useful skill. On offense, a rigid set of play calling may strip some players of

the opportunity to learn decision-making, with and without the ball. As the NBA game

continues to develop into more of a free flowing game based on improvisation and

chemistry, these decision-making tools take on added importance.[139]

For kids up to middle school, the average YMCA schedule contains around nine

games and ten practices over ten weeks; the YMCA does not permit more than one

practice per week.[140] Typically, players are guaranteed to play at least one third of each

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[135] Ibid. Blakeley Thesis Interview.
[136] Ibid.
[137] Ibid. Bev Smith Thesis Interview.
[138] Ibid.
[139] "The Vertical Podcast with Woj: Terry Stotts." Interview. Audio blog post. Yahoo. ESPN, 2 Mar. 2016. Web. Mar. 2016.
[140] "Schedule - Broadmoor YMCA." Broadmoor YMCA Winter Basketball 2015 Game Schedules. Web. Mar. 2016.

game.[141] A middle school basketball schedule usually contains between 25 and 30

games with practices after school on weekdays. That amounts to roughly eight to ten

games and 11 to 14 practices per month.[142] Though the innate structure of the school

week lends itself naturally to after school practices, there are no regulations specifying

how much or how little middle or high school teams should practice. This dynamic

presents the issue that children spend too little time working on skills and athletics,

which leaves technical and physical development on the table.[143] The ideal practice-to-

play ratio for kids in this age level is 3:1.[144] The current departure from this ideal results

in skill deficiencies at higher levels.[145] Moreover, the importance of winning at the

youth level shortens the leash of the players, limiting their ability to make mistakes.

Battier's point about the developmental importance of the 'leash' is not limited to

players in the NBA; it's even more important for youth players, whose confidence is

much more malleable.[146] Coach Smith underscores that players lose the importance of

games by playing too many of them, "most sports scientists recommend 4:1 practice to

game ratio and we do the opposite, you can't get anything done...if you were a math

teacher and you gave four tests to one lesson, you'd be fired, you don't learn from the

tests, you learn from the lessons."[147] In the American system, there are too many games

in which not all players participate, sacrificing some development for the best youth

players and more so for less advanced youth problems. This is a concern because not all

of the best 13 year-olds become the best 22 year-olds; constricting rotations only delays

[141] "Middle School Basketball." Ann Arbor YMCA. Web. Mar. 2016.
[142] "MS Basketball "A" Team." Saint Anselm's. Web. Feb. 2016.
[143] Ibid. LTAD. P. 49.
[144] Ibid.
[145] Ibid. Bev Smith Thesis Interview.
[146] Ibid.
[147] Ibid.

and caps the development of the less advanced players. An inherent issue in youth development is that every child develops mentally and physically at a different pace. Coach Turner emphasizes this with parents concerned about college recruiting frequently, pointing out that "just because [players] are not the same early, doesn't mean they won't get the same [skills later]. We just have to allow nature to take its course."[148]

Another concern related to the schedule of youth basketball, particularly for those players participating in basketball in and outside of school, is the amount of time required to participate. Even at early ages like middle school, there is too much time commitment between school and club teams. The amount of time spent travelling and playing creates the possibility of burning out on the sport or on athletics altogether. It also creates a large opportunity cost for players who want to pursue basketball seriously, and may have to sacrifice other activities accordingly. At the high school age level, the amount of time spent travelling, practicing, and playing by some top programs eliminates the ability of children to participate in non-athletic extracurricular activities, which foster off-court personal or scholastic development. While Steve Turner's teams complete service projects like "cleaning a park" or "running...clinic[s]...in the communit[ies]" to which they travel for tournaments, as well as team-bonding sessions like "going bowling or...to the movies," no teams are required to do so.[149] In fact, the profits from Gonzaga's annual tournament go toward helping players with summer service projects, underscoring the motto of the school, "men for others."[150] Turner also

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[148] Ibid. Turner Thesis Interview.
[149] Ibid.
[150] Ibid.

finds it important to "have someone come in and speak to [his] team about different aspects of life outside of basketball."[151] It is common for schools to schedule anywhere from 30 to 45 games, with practices starting in the fall, and after school during the winter season. A team which practices after school every weekday that there is no game, and one day on the weekend, practices an average of 3.5 times per week with 2.5 games per week. Of course this is an average of highly variable schedules across the country, but this still falls outside of the recommended practice to game ratio of 3:1.[152] Additionally, the singular focus of some schools on basketball impedes the scholastic activities of student athletes, especially in academies which devote themselves to placing players in the NCAA with the goal of breaking into the professional ranks.

Some programs have arisen, notably Findlay Prep in Las Vegas, which only sustain the basketball development of athletes, arranging their education at a nearby school. Findlay Prep has had a successful run with this system, as the headmaster of its partner school, Henderson International, considers Findlay to part of the school's community.[153] Henderson hires the Princeton Review for standardized test preparation as well as offering one-on-one tutoring to every student, including Findlay's players.[154] However, the common theme of the American youth sport remains: while some clubs are able to succeed in providing scholastic, personal, and athletic enrichment, many programs cannot. Offers Steve Turner:

> "The biggest difference between AAU [and high school basketball] is that [AAU teams] don't have to worry about what a kid's do in the classroom...the day-to-day of how a kid's doing in the classroom and how he's behaving. These

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[151] Ibid.
[152] Ibid. LTAD P. 49.
[153] "Henderson International School." Henderson International School. Web. Mar. 2016.
[154] Ibid.

guys get them in the summer when there's no school, it's just basketball...For me it was different."[155]

Indeed, Turner requires all of the players on his AAU team to bring him report cards. The lack of coaching and organizational standardization has resulted in far too many players being trained in ways that are less than optimal, and sometimes harmful, like in the instances of Prime Prep or the Inland Stars. A look at the top 20 under-17 AAU teams gives one an idea of the unintended consequences for the average player, as without a consistent youth structure, the quality of the development offered by AAU and high school teams varies greatly.

Wisconsin Academy, the fifth team in the AAU's under-17 division, denotes daily skill drilling as the primary emphasis on its mission statement, "providing its athletes with the fundamental, mental and physical developmental training to reach their highest possible potential as a basketball player." Wisconsin Academy demonstrates that the AAU system contains teams and coaches with constructive curriculums. Another team in the top 10 of the under-17 ranks, the Arkansas Wings Elite, presents the following mission statement on their website: "To inspire young men and women via the game of basketball to be winners both and off the court, empowering them to obtain their dreams of attending college."[156] One sees both the emphasis on winning and attending college, both achieved through the game of basketball. The 'Staff' section of the site lists only president Ron Crawford, the Arkansas businessman who founded

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[155] Ibid. Turner Thesis Interview.
[156] "Staff." Arkansas Wings Elite. Web. Mar. 2016.

the club.[157] Moreover, as the CEO of Southland Metals, Inc., Crawford does not exactly

possess qualifications as a coach or educator.[158] In Bev Smith's estimation,

> "most coaches in high school are teachers. They understand the importance of complete character development and they know how to develop character...whereas, in my opinion, [most] AAU coaches are all about winning, all about trying to get the shoe contracts, so it doesn't really matter if my kid is disciplined or not. So I just think, in the last 20 years, our coaches are not teachers. They don't understand growth and development. They don't understand child psychology. They don't understand those things that are so important to global development of kids."[159]

Clearly, the AAU environment does not provide a consistently positive and helpful

development for young athletes. Academic shortcomings still exist, despite NCAA's

establishment of the NCAA Eligibility Center, which aims to help ensure the education

of student athletes.[160] Some high school stars, including former NBA MVP Derrick

Rose, attain college athletic scholarships despite lacking the requisite scholastic merit.

Rose famously failed the ACT three times in his native Chicago, only to mysteriously

pass the SAT in Detroit. This prompted many, including the NCAA to become

suspicious, thinking Rose was not the individual who passed the SAT in Detroit.[161] This

explains how Memphis, where Rose played during the 2007-08 season, has zero wins

over that period despite reaching the Final Four. The NCAA vacated those wins as

punishment for Rose's ineligibility, and made Memphis repay its NCAA tournament

earnings.[162]

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[157] Ibid.

[158] Crawford, Ronald. "Ronald Crawford." LinkedIn. LinkenIn. Web. Mar. 2016.

[159] Ibid. Bev Smith Thesis Interview.

[160] "The Kevin Ross Story." Student Athletes and Literacy. Web. Mar. 2016.

[161] "Derrick Rose Cheated, But Will Never Pay The Price." Bleacher Report. 20 Aug. 2009. Web. 13 Jan. 2016.

[162] Ryan, Shannon. "NCAA Penalizes Memphis in Derrick Rose Test Case." Tribunedigital-chicagotribune. 21 Aug. 2009. Web. Mar. 2016.

**Conclusion**

The NBA's reliance on American youth sports infrastructure is undeniable. Out of roughly 450 NBA players on 2015-16 rosters, 100 were foreign, meaning that about 78 percent of NBA players were developed in the United States.[163] The increase in the amount of foreign players, who have exceeded or reached 100 in number each of the past two seasons, reflects how much the quality of training and level of play has increased around the world. However, as the Spurs point out, it may also be indicative of the decreased quality of training in the United States. This is certainly the approach the Spurs have taken over the past several years. Apparel companies, having opened a lucrative market with the Jordan brand, have pumped more resources into sponsoring college, high school, and youth teams, hoping to land the next big star. Coaches at every level have noticed these changes, where many amateur basketball clubs are run by businesspeople, but also coached by business people, who are attracted to amateur basketball because of the contracts available from apparel companies and the opportunity to further one's career through relationships with young stars. When this system first came into being, according to Bev Smith, "it was the honor system. But when it's a $7 billion per year industry, there is no honor system...then there's no oversight."[164] Says Steve Turner of the relationship of high school basketball and the AAU, "it's not the best marriage, but it's one that's needed, for the kids."[165] Here, Smith and Turner point to the fact that though the system is broken, athletes nevertheless need it to reach their potential. Since, coaches in America are not required

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[163] "NBA Rosters Feature 100 International Players for Second Straight Season." NBA.com. 27 Oct. 2015. Web. Nov. 2015.
[164] Ibid. Bev Smith Thesis Interview.
[165] Ibid. Tuner Thesis Interview.

to obtain any coaching education or certification, coaches may not have the best tools to teach skills that kids also need. Since the coaching class is underdeveloped, the players are too; the focus on short-term accolades as well as the lack of proper coaching education impedes the skill development of young athletes. These impediments turn into skill deficiencies at the professional level, where a player's athletic foundation has already been established, mostly capping development potential. USA Basketball has taken steps toward instituting coaching education standards, but unfortunately, many of their resources are not widely available. In order to solve many of these issues, it will be useful to examine other models which more effectively under similar circumstances.

## Comparative Analysis

**American Professional Leagues: MLB and MLS**

While the youth sports structure remains the same for most sports in the United States, some American leagues have different rules surrounding how their teams access young talent. The MLS, NHL, and MLB have, to varying degrees, a minor league system in which coach and player prospects cut their teeth before making their first appearance with high level professional teams. The models of these leagues represent good corollaries for a basketball development pathway, since baseball, hockey, and soccer are also late development sports, as are most team sports.[166] The most established of these is the minor league baseball system, MiLB. There are 246 teams in MLB farm systems, with seven or eight MiLB teams serving each of the MLB's 30 teams.[167] Each major league team has Triple-A, Double-A, Single-A affiliates, as well as a short-season team and approximately three or four rookie teams. Triple-A is the highest level of the minors, with rookie ball being the lowest. Typically, one will work their way up from rookie ball to the majors, though sometimes a player skips a level depending on their aptitude or to avoid a specific hitting or pitching environment. However, as one would expect given the number of players in the minors, most do not receive a call up to play in the MLB. A major league team's affiliates are typically located in its region, with the proximity of the Triple-A team being the most important, since players will often receive a short notice call up due to an injury at the top level. A large reason for the need of such an extensive minor league system is that the MLB

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[166] Ibid. LTAD. P. 19.
[167] "Teams by Affiliation | MiLB.com Official Info | The Official Site of Minor League Baseball." MiLB.com. Web. Apr. 2016.

selects players directly out of high school in addition to those who played in college. Often times, as was the case with Brady Aiken, the first pick in the 2014 Draft, players drafted are not signed.[168] This is fairly common with high school prospects who may choose to play in college rather than enter the minors. If a player does not sign with the team that drafts them, the player is free to re-enter subsequent drafts and the team is given a compensatory pick the following year. In Aiken's case, the Houston Astros received the second overall pick in the 2015 Draft as compensation for not signing him.[169] However, should a player elect to play in college, they must do so for three years before becoming eligible to re-enter the MLB Draft.

There are plenty reasons a player may choose to enter college despite being drafted. For those drafted outside of the first or second round, the financial reward of playing in the minors is less than the value of a college scholarship.[170] The life of a minor league baseball player is notably unglamorous, especially compared to high-level AAU or college basketball; MiLB players' travel, food, and housing arrangements are meant to be cost-effective above all else. Many minor league players actually make below minimum wage, according to a USA Today report, which partly stems from the fact that the players do not have their own union and are considered to be tied into the MLBPA.[171] Aside from the lack of minor league financial incentive, some players may not be ready for the lifestyle of a professional, making three or four years in college a better option to develop their skills outside of baseball while remaining in the game.

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[168] Callis, Jim. "Top Draft Pick Brady Aiken Undergoes Tommy John Surgery." Major League Baseball. Mar. 2015. Web. Apr. 2016.

[169] Staff Report. "2015 MLB Draft Slot Values - BaseballAmerica.com." BaseballAmerica.com. 08 Apr. 2015. Web. Apr. 2016.

[170] Ibid.

[171] Berg, Ted. "Many Minor League Baseball Players Earn Less than Minimum Wage." For The Win. 08 Mar. 2015. Web. Apr. 2016.

Once a player becomes a member of a professional organization, the team dictates his advancement through the minor league system by measuring his performance. Advancement to the majors is also dependent on the needs of the major league team and its needs, with factors ranging from relative competitiveness to positional need. Given these factors, every player's path is a little different. A star player like Bryce Harper may only spend a year and a half in the minor league system of the team that drafted him, where a relief pitcher like Joakim Soria may spend five years in the minors before receiving a call up.[172] [173] MLB teams can trade minor league prospects. Where an NBA trade for a star player may include young prospects and draft picks, such a trade in the MLB will net only prospects for a team trading away a star. So, while MLB draft picks rarely produce wins the following year and are not assets in their own right, teams can still use minor league prospects as transactional assets.

The Draft is not the only way for MLB teams to acquire young talent, however, as teams have set up youth academies in the Dominican Republic and elsewhere in Latin America. Since 2005, "15 academies have been built at an average cost of $4 million each."[174] Now seems to be a period in which more investment is taking place, with the Dodgers, Phillies, Twins, and Cardinals building new facilities or renovating old ones over the last year.[175] MLB director of Dominican operations Rafael Perez estimates that "450-500 Dominican players are being signed" each year.[176] The Dodgers

[172] "Bryce Harper Statistics and History | Baseball-Reference.com." Baseball-Reference.com. Web. Apr. 2016.
[173] "Joakim Soria Statistics and History | Baseball-Reference.com." Baseball-Reference.com. Web. Apr. 2016.
[174] Rojas, Enrique. "Baseball Academies Thrive in the Dominican Republic." ESPN. ESPN Internet Ventures, 1 July 2015. Web. Apr. 2016.
[175] Ibid.
[176] Ibid.

facility, Campo Las Palmas, was the first MLB academy, built in 1986.[177] Its facilities

include "two fields, two half fields to train infielders, a gymnasium, a cafeteria, a game

room, a study and a dorm accommodating up to 100 players and a farm that previously

produced all the food consumed on site."[178] Supplementing baseball training are

"educational programs that offer English classes, leadership workshops, anger and

stress management, etiquette and protocol, basic American culture and formal

education."[179] The MLB's involvement with Latin America has not been without

controversy, however, as the tragic 2011 death of Nationals academy member Yewri

Guillén sparked calls for better medical care for these young players. Having been

summoned to play for the Nationals' Florida rookie league affiliate, Guillén took ill and

eventually passed away from bacterial meningitis.[180] The Nationals' academy did not

employ a certified athletic trainer or doctor, and because his contract had not been

finalized, Guillén had no insurance and was denied treatment at the hospital.[181] As

recently as 2013, the MLB did not hold Dominican academies to the same standards of

providing medical care as its minor league affiliates.[182] While the MLB has said they

are working on improving conditions for these players, many remain skeptical, like non-

profit news source *Mother Jones*, which first sensationalized Yewri Guillén's story.[183]

One change that has assuredly been made, with respect to the Dominican academies, is

a spending cap on signing these prospects. After the Texas Rangers signed 16-year-old

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[177] Ibid.
[178] Ibid.
[179] Ibid.
[180] Gordon, Ian. "Inside Major League Baseball's Dominican Sweatshop System." Mother Jones. Mar.-Apr. 213. Web. Apr. 2016.
[181] Ibid.
[182] Ibid.
[183] Ibid.

Nomar Mazara for $4.95 million in 2012, the MLB instituted a spending limit for international signees. These vary per team and are slotted according to a worst-record-first order, like draft picks. For the 2015-16 signing period, limits range from $1.97 to $5.39 million.[184] In comparison to draft pick allotments, which range from $1.71 to $8.62 million for the first round, these figures are quite small; draft slots are for an individual player, not a group of players.

Despite the seemingly suboptimal environment in the Dominican Republic, MLB teams have two systems by which they can induct and develop players. These systems intersect in the minor leagues, where domestic draftees join forces with academy-produced international signees. At that point, players develop under the tutelage of minor league coaches and trainers, hoping to reach the big leagues. In the MLB, where salaries are uncapped, developing players internally keys the success of small- and large-revenue teams. In 2015, a year in which he won the NL MVP at the age of 22, Nationals' outfielder Bryce Harper produced 9.9 wins above average and made $2.5 million dollars in MLB salary.[185] In the 2015 market, the value of a marginal win was $6 million according to ESPN's Dan Szymborski, making Harper worth $59.4 million over the course of his MVP season. But given the salary structure of the MLB, where salaries of young players are capped due to the high variance of their future production, Harper cannot renegotiate his contract in arbitration until 2017.[186] Harper cannot hit the free market until 2019, after he has logged six years of MLB service

[184] Badler, Ben. "BaseballAmerica.com: Prospects: International Affairs: Rangers Make Big Bet On Nomar Mazara." BaseballAmericacoms RSS. 29 Mar. 2012. Web. 10 May 2016.
[185] Ibid. Bryce Harper, Baseball Reference
[186] Ibid.

time.[187] This low salary ceiling affords the Nationals the ability to add many more perspective wins via free agency, or even pay higher than the market rate for certain players. They demonstrated this ability by signing free agent Max Scherzer in 2015, for an average of $30 million per year. Understandably, some teams have attempted to manipulate players' service time given the restrictions in place. In 2015, prospects Maikel Franco and Kris Bryant each filed grievances with the league alleging that "their respective teams manipulat[ed] their promotions to the majors in order to delay free agency…[costing] both men millions of dollars." [188] While these accusations are hard to prove, they expose a loophole teams can potentially exploit. The cautionary tale of the small-market Florida Marlins, who won the World Series in 2003, only to trade stalwart young talents Dontrelle Willis, Josh Beckett, and Miguel Cabrera in fear of their impending free agencies, has made such exploitation more attractive for teams. Regardless of some teams' manipulation, drafting and developing young talent provides an organizational boost for big-market teams, while remaining the lifeline of teams in small markets. These stories mirror those of the Golden State Warriors and Oklahoma City Thunder, illustrating how professional teams can use player development to augment budgetary advantages or to hedge against budgetary disadvantages.

Major League Soccer, the newest of the professional leagues in American mainstream sport, also enlists prospects with two concurrent systems. Well-established MLS and American soccer star Clint Dempsey grew up playing for an elite youth team in an independent youth association, then for Furman University before being drafted

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[187] "Frequently Asked Questions." Major League Baseball. Web. Apr. 2016.
[188] Brown, David. "Report: Kris Bryant, Maikel Franco File Service-time Grievances." CBSSports.com. Web. Apr. 2016.

into the MLS in 2004. Dempsey followed the traditional path of a United States

professional athlete, competing in college soccer before being selected in the MLS

SuperDraft, which is how college players matriculate into the league. Toronto FC

captain Michael Bradley entered the MLS at the age of 16, before graduating high

school, as part of the Project 40 program, now called Generation adidas.[189] This

program allows top amateur talent to enter the SuperDraft in order to expedite their

development. When drafted, these players do not count against a team's salary cap,

which points to their truly developmental status; since they are not on the salary cap,

there is less pressure to produce on-field value. The MLS started this program in 1997

with a Nike sponsorship.[190] This initiative has accelerated the MLS arrival of players

like Tim Howard and DeMarcus Beasley, but has also made a fair amount of missteps,

most famously with 14-year-old Freddie Adu. Nevertheless, those who succeeded were

able to widen the window of their professional careers, while those that struggled did

receive monetary compensation and professional-level training during a period in which

they would not have otherwise. Since these players interrupt their education in order to

pursue soccer full-time, Generation Adidas players are guaranteed college scholarships,

which they can use during or after their playing career.[191]

In 2006, the MLS instituted the mandatory establishment of youth academies for

all of its teams.[192] U-14, U-16, and U-18 academy teams play 10 months per year for

coaches who are licensed through the United States Soccer Federation (USSF) or the

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[189] Borg, Simon. "Generation Adidas Players to Graduate at Season's End." MLSsoccer.com. 17 Nov. 2010. Web. Apr. 2016.

[190] LeCrom, Carrie, John Selwood, Phillip Daltrup, and Mark Driscoll. "The Impact of Nike Project 40/Generation Adidas Players on Major League Soccer." Mar. 2012. Web. May 2016.

[191] Ibid. MLSSoccer.com

[192] "Academy Frequently Asked Questions." D.C. United. 2014. Web. Apr. 2016.

Union of European Football Associations (UEFA). Teams compete weekly against other regional academy teams, as well as in national or regional tournaments, like the Generations adidas Cup and the Developmental Academy Playoffs in which MLS academies participate.[193] National tournaments like these provide broad exposure at the U-18 level. Clubs can sign youth players to professional contracts once they have participated in the academy for a year.[194] Though academies offer financial aid, some players and families must pay to participate in these academies; for instance, D.C. United's academy costs $2,500 for U-14 players and $1,500 for U-16 and U-18 players.[195] However, those prices represent the highest among MLS teams; The New England Revolution fully covers the costs of all player participation.[196] Each academy team of up to 25 players fills its roster through a number of sources, each with varying levels of affiliation with the club as a whole. Academies frequently have affiliate organizations, which have a wider reach, to "help scout and select talent" by populating tryout training sessions.[197] The also team employs scouts who make appearances at other games in the area, in addition to holding open tryouts to attract players. For players, the academy team, and to a lesser extent an affiliate league, is an extremely strong draw. Not only are they afforded access to the consistently good coaching, players also are members of the organization as a whole, allowing them to become familiar with the club's tactics and embed themselves in the club's culture.[198] This is beneficial for the club as well, as players spend four practices and one game with the

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[193] Ibid.
[194] Ibid.
[195] Ibid.
[196] Botta, Christopher. "MLS Steps up Its Game with Youth Academies." - SportsBusiness Daily. 1 July 2013. Web. 13 May 2016.
[197] Ibid. DC United
[198] Ibid. Sports Business Daily.

team per week.[199] Practice sessions are held after school, with which the club academies are not involved, and games are on weekends.

In 2015, the MLS required that all teams add a U-12 age group, with many clubs already operating at that level. This move allowed them to "create 1,000 spots in the 13- and 14-year-old age ranges" by recruiting 4,000 players for U-12 teams.[200] In doing this, the league also implemented standardized game rules, controlling for the number of players on, and the size of, the field.[201] Games are played with nine players per side and 30-minute halves.[202] Substitution re-entry, not allowed in professional soccer, is allowed, with mandatory substitutions taking place at times agreed upon by opposing coaches.[203] League formatting was also adjusted, with one game per week for a roughly 10-month schedule, no standings, and no end of year trophy.[204] Academies deploy two teams at the U-12 level, comprised of 26 players each, which practice three times weekly and play one game per week. In its press release, the MLS stated that "avoiding sport- and position-specific specialization" and a "focus on continuous, uninterrupted play and more frequent on-ball interaction in order to improve game awareness and creativity," were the goals behind these regulations.[205] Moreover, the diminished competitive emphasis underscores a sustained focus on player development and enjoyment, not typical of American youth sports.[206] In aspiring to "no overnight trips," the league aims for players' schedules to allow time of other extracurricular

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[199] Ibid. DC United
[200] "US Soccer Development Academy Announces Expansion into Under-12 Age Group, Splits U-13 and U-14." MLSsoccer.com. 20 Oct. 2015. Web. 13 May 2016.
[201] Ibid.
[202] Ibid.
[203] Ibid.
[204] Ibid.
[205] Ibid.
[206] Ibid.

activities.[207] Partnerships with local boarding schools, some of which have

arrangements for players to travel home for weekends, increase the ease with which

academies can accept players from outside of their immediate area.[208]

The success of MLS academies has been growing, as increased numbers of

players excel through the ranks and sign contracts, they represent another positive point

of reference for younger players.[209] President of the Los Angeles Galaxy, Chris Klein,

predicts that because of "an incredible amount of local talent," his club could "be one of

the global leaders in player development" if it went about the process correctly.[210] For

the MLS, the youth academy initiative represents its best chance to raise the level of

play and, therefore, the global profile of the league. The league has attracted many

international stars, like David Beckham and Thierry Henry, in the twilight of their

careers through its Designated Player rule, which allows teams to designate players

whose contracts are exempted from salary cap regulations.[211] However, with a salary

cap of just over $3.6 million, $180,00 per roster spot, the financial resources of the

MLS and its teams pale in comparison to more renowned soccer leagues, which do not

cap salary spending and bring in much more revenue. Despite similar salary cap

regulations, American leagues like the NBA dwarf the amount spent in the MLS; the

2016-17 NBA salary cap is projected to hit $108 million for 15-man rosters, roughly

$7.2 million per player.[212] Given its financial restraints, developing younger, less

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[207] Ibid.
[208] Ibid. DC United.
[209] Thomas, Ian. "MLS Seeks to Build Pipeline of Players." - SportsBusiness Daily. 10 Aug. 2015. Web. Apr. 2016.
[210] Ibid.
[211] "Roster Rules and Regulations." Welcome to MLS Press Box. Web. Apr. 2016.
[212] Bien, Louis. "NBA Salary Cap Projected to Hit $108 Million in 2017." SBNation.com. 17 Apr. 2015. Web. Mar. 2016.

expensive players will key the league's domestic and global growth. An important aspect of the MLS' academy system, especially from an American perspective, the manner in which it interacts with the education system. At each level, players attend school until they graduate or sign professionally.

Those who do not attain professional status are still able to play collegiately, as their amateur status remains intact. D.C. United's academy has seen "over 80 players go on to play [NCAA] soccer."[213] Of 32 players invited to the most recent U-17 USSF training camp at IMG Academy's Florida campus, 11 had experience at MLS clubs.[214] Given the recent changes implemented by the MLS, the success of the academy system will be barometer for any similar system in the United States, though not a perfect one. The academies, having been recently established, must contend with traditional youth sports leagues and teams, like high school or club soccer. The same difficulty would exist for any other professional league in the United States. The MLS has had success in this area; despite requiring many players to pay for participation, they can still attract top talent. An advantage provided by the MLS has been the close affiliation with the senior club and high-quality, licensed coaching. Though the youth soccer environment differs from that of basketball in overall participation numbers, demographics of participants, and many other factors, the benefits of a professionally-affiliated academy transcend many of those factors.

**The European Youth Academy Model**

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[213] Ibid. DC United

[214] "Eleven MLS Academy Players Named to US U-17 National Team Aegean Cup Camp." MLSsoccer.com. 15 Jan. 2016. Web. Mar. 2016.

In Europe, and most other cultures outside of the United States, professional

clubs handle many aspects of youth athletics and player development from early ages.

The stories of Lionel Messi and Andres Iniesta growing up together under the watchful

eye of the Barcelona youth academy staff highlight how beneficial this system can be

for players and teams.[215] Travis Blakeley of the Texas Legends, who also played

professionally in Croatia, expresses that, "one thing that European style training has

allowed, and we have moved away from, in no small part due to AAU basketball, is the

importance placed on school basketball. That's the one thing that I have seen in the

European model, is the daily grind...because [players] don't have other options to go

elsewhere."[216] While the specifics of each academy differ per country, per league, and

per team, generally, each player in a professional team's youth academy is considered a

member of the organization, if not an outright professional. A defining difference of

professional sports overseas is the free market by which it operates. Rather than being

drafted and traded from team to team, players contract rights are sold between clubs for

a transfer fee, after which point the buying club and player in question must come to a

new contract agreement. In soccer, players are commonly transferred from Brazil to

Spain or from Portugal to England; it truly is a global player market. Basketball, too,

sees players cross continents when switching teams. Moreover, many transfers include

selling-on fees, which are paid to the club at which the player trained in his youth. Even

NBA clubs have been subject to these transfer fees. In 2011, capped at $500,000 in

buyout spending by the NBA, the Minnesota Timberwolves made a series of

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[215] "Lionel Messi and Andres Iniesta Can Still Surprise Me - Javier Mascherano." ESPNFC.com. 19 Feb. 2016. Web. 13 May 2016.
[216] Ibid. Blakeley Thesis Interview.

sponsorship deals that paid for Ricky Rubio's $1.4 million buyout with Barcelona.[217] Indeed, the goals of each youth academy can be directed at furnishing the first team, collecting revenue from the sale of players, or some combination of the two. Italian soccer club Inter Milan made a profit of €42 million from selling homegrown players in the six-year period from 2007 to 2012.[218] For Dutch football giant Ajax, the main goal of the youth club is to produce three players for the first team every two years.[219] Bayern Munich's aims are similar, wanting to deploy a first team full of players from its youth ranks "who identify themselves fully with the club."[220]

Though most clubs fill their academy ranks with local talent, many clubs have a mix of players who are housed by the team and who live at home. In Bayern Munich's academy, roughly 90 percent of players are from Bavaria, with five percent coming from elsewhere in Germany and 5 percent coming from abroad.[221] Bayern houses the foreign players, who take on the additional scholastic duty of German lessons.[222] Ajax arranges for its foreign players to stay with host families in the area.[223] According to the ECA, the European Club Association, who reports on youth academies worldwide, 78 percent of academy players are local, within an hour's drive, 21 percent are national, more than an hour's drive, and 1 percent are foreign.[224] Most clubs scout heavily in their own region; Ajax employs 50 scouts in the Netherlands and five international

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[217] "Report: Ricky Rubio Will Play for Wolves." ESPN. ESPN Internet Ventures, 3 June 2011. Web. Apr. 2016.
[218] Report on Youth Academies. P. 46 Rep. ECA, Aug. 2012. Web. Dec. 2015.
[219] Ibid. P. 21.
[220] Ibid. P. 39.
[221] Ibid.
[222] Ibid. P. 41.
[223] Ibid. P. 21.
[224] Ibid. P. 96.

scouts.[225] Barcelona's academy players are 80 percent local, with a "strong

international" presence."[226] However, there are differences in which qualities clubs find

desirable in prospective players, which are dictated by the football philosophy and

strategy of each club. Ajax bases player evaluation on their TIPS acronym, which

stands for Technique, Intelligence, Personality, and Speed, both in scouting players and

evaluating those who are already in the academy.[227] Much like in the MLS, many

academies have relationships with other youth associations, through which they can

raise these associations' level of training and easily scout surrounding areas. Barcelona,

for instance, scouts African players through its relationship with the Samuel Eto'o

foundation, which provides services through soccer in Cameroon.[228] Barcelona's

philosophy is unusual, however, in that the strategy of the first team flows from the

youth team, whereas most clubs recruit players to fit their style.[229] Similarly, each club

has a different policy when it comes to education, both in terms of how heavily it is

emphasized and where it happens. Where some clubs do not concern themselves with

the scholastic development of athletes, others hire tutors, and many educate students

with their own staff of teachers or set up close relationships with local schools.

Bayern's academy employs six teachers, with players who fall behind academically

ineligible to play.[230] Ajax, on the other hand, does not place any emphasis on education

in their academy.[231] Arsenal's academy players attend school until they turn 16, then

participate in a special program focusing on language, life skills, sport science, and

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[225] Ibid. P. 21.
[226] Ibid. P. 34.
[227] Ibid. P. 25.
[228] Ibid. P. 34.
[229] Ibid.
[230] Ibid. P. 43.
[231] Ibid. P. 25.

coaching, with the goal of enabling players to pursue other soccer-related opportunities should their playing career not advance.[232]

Payment of players also differs from club to club, where one can see all forms of payment in play. Most commonly, players train for free, though in some instances parents must pay a nominal insurance cost.[233] Some youth clubs provide living stipends at a weekly or monthly rate. A key difference here is that athletes commonly turn professional at 16, after which point most will compete on under-20 or reserve teams. Star talents may hit the first team in their teen years, competing with and against grown men. With all athletes eligible for professional status at the age of 16, the opportunity cost of training for free comes down. Those who are talented enough to make money do so as early as possible, without waiting to finish high school and attend college for a year.[234] It should be noted that the characteristics of different sports, as well as the individual in question, dictate the feasibility of becoming a full-fledged professional at the age of 16. Some players will split time between the teams, effectively practicing with the first team and playing with junior and reserve teams. Budding Greek star Giannis Antetokounmpo, who started playing basketball at the ripe old age of 13, had a similar experience rising through the Greek club, Filathlitikos. In a 2013 pre-Draft interview with Jonathan Givony of DraftExpress, Antetokounmpo[235] discusses his role with the senior team in which he "play[ed] a good 5 minutes" per game. However, with the junior team, Giannis "[was] the leader, [had] to do everything on the court, [and

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[232] Ibid. P. 30.
[233] Ibid. P. 25.
[234] Ibid. Wicksham, Seth
[235] Givony, Jonathan. "Giannis Antetokounmpo Interview." Youtube. DraftExpress, June 2013. Web. Mar. 2016.

had] to be [his] best"[236] In the midst of completing two practices per day, Antetokounmpo was also practicing how to play different roles, leader and role player. All of these repetitions have surely served him well, as he ascended from the role of 'project player' into the role of 'franchise savior' in the year following his selection in the 2013 Draft. Now, a constant triple-double threat at the age of 21, Antetokounmpo leads a young Milwaukee Bucks roster trying to find its collective footing in the NBA. Though the players have changed, much of game remains the same for the Greek wunderkind, thanks in part to his formative years at Filathlitikos.

Another common strategy used by clubs to develop young stars not yet ready for top flight competition is to send them on loan. By this arrangement, a team at a lower level of play will pay the player's salary for a given period, during which he will compete for the loaning team. This allows lower level teams to bolster their roster without paying exorbitant transfer fees, higher level clubs to develop players while saving money on salary, and players to receive playing team in a bigger role than would be available on their teams of origin. However, loans are enabled by the free market in soccer, which has resulted in many more professional teams than exist in American basketball. There are many more variations on aiding a young players' transition into the senior team. Inter Milan rosters five U20 players on its senior squad, citing financial benefits and accelerated development.[237] In fact, the whole U20 roster trains with the senior team, allowing the young players to soak up the senior team's training culture.[238] While Bayern Munich completely separates the youth and senior teams in order to

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[236] Ibid.
[237] Ibid. ECA. P. 46.
[238] Ibid. P. 48.

shield the academy from frequent regime changes common in professional sport, the club composes its reserve team of reserve first team players and top youth prospects.[239] Some teams, like the English club Arsenal, designate specific competitions in which top youth players receive first team opportunities.[240] According to the ECA, nearly 99 percent of clubs employ a transition strategy, with roughly 80 percent of teams including their reserve team as an aspect of the strategy.[241] These figures underscore how fundamentally important a first-team transition can be for young players. At the lowest youth levels, the vast majority of clubs implement game alterations similar, in varying degrees, to those of the MLS.

Similar to the world of AAU basketball, there exists a fair gap between the elite youth academies, like Barcelona's revered La Masia, and those without renown, who under produce talent due to their level of resources, like many of England's youth academies. Of course, this gap hinges on available resources, Barcelona pulls in revenue from every corner of the world, but it also depends on coaching talent and organizational philosophy. Many clubs, around 30 percent of those surveyed by the ECA, devote more than €3 million per year to their youth academies.[242] In fact, half of these clubs spent at least 6 percent of their yearly operating budget on their youth academies.[243] The primary costs of running an academy, according to the ECA, are hiring staff, player contracts, training and match costs, transport costs, and the cost of facilities.[244]

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[239] Ibid. P. 40.
[240] Ibid. P. 29.
[241] Ibid. P. 106.
[242] Ibid. P. 98.
[243] Ibid. P. 101.
[244] Graphs of ECA survey for costs available in Appendix C. Ibid. P. 104.

Another key factor in the quality of youth academies is the backing of the national association. While investment from the club, itself, remains paramount, the second most important source of funding for most clubs was subsidies from their league or national governing body.[245] Many national bodies have their own youth academies, exemplified by the French academy Clairefontaine; whereas other countries, like Germany, structure and subsidize the clubs' youth academies to fit certain standards. For national bodies, running or subsidizing youth academies is a key investment for which the return is success in international competition, like the Olympics or a World Cup. To that point, many leagues, in cooperation with national governing bodies, require a specific number of players to be from the same country or 'homegrown players.' Depending on the specific rule, these players are either trained at the club's youth academy or are from the same country. For example, each 25-man English Premier League roster must contain eight players trained in England.[246] England, having played poorly in international competition over the last 10 years, hopes that this 2010 rule will incentivize clubs to develop players for themselves, and hopefully the national side. Since national bodies have a natural alliance with said country's government, broader changes to athletic culture can be more easily made, like installing a different type of physical education in a school system. These organizations may also have more reach in bringing in non-athletic experts necessary for a youth system, like teachers or psychologists.

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[245] Ibid. P. 102.
[246] Wachtel, Thomas. "The Premier League's Home Grown Player Rule, Explained." The Short Fuse. 03 Sept. 2014. Web. Apr. 2016.

For a club team, the payoff comes with producing players for the senior team, or, more directly, in receiving transfer fees or royalties after producing and selling young talent in the transfer market. For instance, while Internazionale FC has spent €6 million annually on their youth academy, they have sold players for a much higher price, like the €21.8 million sale of Mario Balotelli in 2011.[247] In fact, 59 percent of clubs surveyed by the ECA see their academies as a source of income rather than a cost.[248] Nearly 90 percent of those clubs see the academy as a crucial source of future first team players and an integral part of the club.[249] Often in American professional sports, when a player has been with a team for a decade, like Tim Duncan of the Spurs, they take on the personality of the team and become a lifetime member of that working group. Sometimes these players take less money for the good of the team, or take on smaller roles to accommodate new star teammates. However, sometimes, like in the case of Kobe Bryant, whose 20-year Lakers tenure has been as dramatic as successful, the player receives maximum salary and eats up playing time for developing youngsters. In the academy model, players like Bryant are members of the organization long before they are stars of it, setting a more even tone for a relationship. A successful academy also cuts down on the transitions a young player has to make. Rather than adjusting to new environments for each level of play, one may rise through the ranks with other talented teammates, being instructed by coaches who may already have a relationship with the player. Of course, on the other side of these benefits sits players who either do not make these youth academies or are cut after a couple years. Typically,

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[247] "Contro Informazione." Ju29ro.com. 30 Dec. 2012. Web. May 2016.
[248] Ibid. ECA. P. 106.
[249] Detailed graphical breakdown available in Appendix C. Ibid.

each player gets a year to prove themselves; each academy selects and retains based on different criteria. Some clubs emphasize physical gifts, others look for technical ability, some look for any kind of talent combined with the right personality. Youth players cut from one youth academy may take up training with another. Tottenham star Harry Kane was released from Arsenal's academy at age 11, at which point he joined Tottenham.[250] These early selections and divisions, which can take place as early as 7 years old, can serve to eliminate a late-developing portion of the talent pool. Though sport is accessible through schools in most countries, the best coaching certainly can be found in the confines of the local club, not the school yard.

The academy model has many variations, which are predicated on the specifics of each individual club, regulations from league in which it plays, or any involvement of the national governing body. However, generally, youth academies provide a highly structured environment for the most talented players in a region to develop their skills from an early age. Though many of these skills are athletic, many are not, as one learns professionalism from coaches and other professionals. The locality of many clubs provides flexibility for highly talented young players who may be able to handle top-level training, while giving them game experience at a lower level in which results take a back seat. In fact, only 40 percent of academies list youth team results as a performance target.[251] Coaching certifications, necessary for employment at the vast majority of academies, are handed down by the league, national governing body, or both. This reflects the professional approach, where stakeholders invest in coach and

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[250] Doward, Jamie. "Bio-banding: How Scientists Can Help Late Developers Become Sporting Superstars." The Guardian. Guardian News and Media, 19 Dec. 2015. Web. Apr. 2016.
[251] Ibid. ECA. P. 108.

player development. For many clubs, the benefits of their youth academies go beyond

simply producing top players. Barcelona credits the loyalty developed through its youth

academy with players taking discounts on new contracts.[252] Technical Director of

Croatian soccer, Romeo Jozak emphasizes that a longer history with a club builds

reciprocal trust, which helps on the field and in the business arena.[253] Furthermore, it is

common for players and coaches to be paid for their effort in training. This reflects a

credo of the non-athletic professional world, where if a company does not pay for one to

train properly, it cannot expect one to work properly.


## The Bundesliga and the Deutscher Fußball-Bund (DFB)

In the 1998 World Cup, Germany finished 7th, its lowest finish since 1962. In

the following European Championships, in 2000 and 2004, the team finished 14th and

12th, respectively, the worst two finishes in German history. Even considering a second

place finish in the 2002 World Cup, which was spurred by goalkeeper Oliver Kahn's

otherworldly performance,[254]this period marked the worst in the history of international

German football. With a domestic league increasingly stocked with imports, German

clubs were not developing players to sustain their own success or the success of the

national side.[255] In February of 2001, sensing the dearth of German football talent, the

Bundesliga and the DFB knew that "the development and support of young and highly

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[252] Ibid. P. 108.
[253] "SoccerWire.com Q&A (Part 1): Croatia Technical Director Romeo Jozak on Coaching Education." Soccer Wire. 23 Jan. 2014. Web. Apr. 2016.
[254] Per Planetworldcup.com, Kahn Conceded just three goals during the whole tournament
[255] Chart available in Appendix D. 10 Years of Academies: Talent Pools of Top-level German Football. Rep. DFL Deutsche Fußball Liga GmbH, 25 Mar. 2011. Web. Dec. 2015.

talented players had to be comprehensively renewed."[256] What came of this overhaul

was an analysis of Germany's standing within world population demographics and

athlete development, leading to an enduring youth model to address those realities. An

increased investment in each club's youth academies, subsidized by the DFB with

guidance from Belgian academy development firm Double Pass, was a building block

in improving the quality of German players, and therefore, the national team. Embedded

in this transformation are regulations which specify coaching qualifications, scholastic

requirements, and medical and training ground specifications for all academies, which

became mandatory for all Bundesliga 1 and 2 clubs.[257] Each club was made to hire full-

time youth coaches, which not only provides youth players with more access to

coaching, but also provides job security for coaches, who need not worry about

ancillary or short-term goals given their full-time status.[258] Because of the strength in

the academies, the Bundesliga started the U19 and U17 leagues, in which each academy

competes. Starting in 2002, Double Pass took charge of measuring and certifying the

"quality of the academies of all clubs to create an objectively assessable picture."[259]

     As investment by German clubs in their academies increased at unsustainable

rates, total funding increased from €47.85 million in 2002-03 to €85.7 million in 2010,

it became imperative to emphasize quality spending.[260] There are eight categories on

which Double Pass appraises clubs: Strategy and Finances, Organization and Procedure,

Football Education and Evaluation, Support and Training, Personnel, Communication

and Co-operation, Infrastructure and Facilities, and Effectiveness and Permeability.

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[256] Ibid. P. 8.
[257] Ibid. P. 9.
[258] Ibid.
[259] Ibid.
[260] Ibid. P. 4, 29.

Every aspect of an academy, "the clubs' playing fields, building, and facilities…[and] members of staff."[261] With coaches, Double Pass "focus[es] on work philosophy, on principles and concepts of the education of young players."[262] These certifications act as a confirmation of and check up on the coaching and academy licensing systems. Each review by Double Pass checks against the DFB criteria on which academies originally start. In the mind of the Bundesliga, "certification essentially refined the talent pools and gave them more intrinsic value."[263] Holger Hieronymus, Chief Operating Officer of the DFL, offers that the certification system with Double Pass has "taken [Germany] another step forward…[in] providing sustainability in work with young talent"[264] The transparency of these criteria between the DFB, Double Pass, and individual clubs is a key aspect to the success of the system as a whole.[265] Naturally each club aims to keep certain practices within its walls, but as Double Pass or the DFB further innovate, such advancements are passed on to the clubs.

Hieronymus expands on this improving dynamic, "views are exchanged to a much higher degree since the introduction of the certification. Notes are being compared more closely."[266] Furthermore, the DFB opens Double Pass inspection to all clubs, even regional and fourth division teams voluntarily took part in a 2007 examination.[267] The results of this examination were not at all inflated: 12 clubs reached three stars, eight clubs reached two, five clubs received one star, and 14 were awarded

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[261] Ibid. P. 27.
[262] Ibid.
[263] Ibid.
[264] Ibid.
[265] Ibid.
[266] Ibid. P. 28.
[267] Ibid.

zero stars.[268] In fact, only seven of the 12 three-star academies were in the Bundesliga,

as the remaining five came from the Bundesliga 2.[269] Given clubs' zeal to improve their

scores, the DFB and DFL "publish[ed] a 'Best-Practice Handbook' in 2011," further

aiding the systematic improvement of youth development infrastructure.[270] As for

coaches, 71 percent of those in the top two German leagues had obtained the "required

state" of coaching licensing.[271] However, the natural tendency of ranking academies, in

a "top of the charts scenario," has been closely guarded against.[272] After all, the goal of

these structural changes is to improve the quality and quantity of youth players, not for

clubs to compete with one another on whose youth academy ranks more highly. Clearly,

the DFB and the DFL member clubs have maintained focus on their original goal.

Apart from providing a barometer by which the DFB and Bundesliga may

measure each academy and the system as a whole, these reports also serve as a

determinant of DFB funding for academies. DFB funding for these academies comes

from the UEFA's Champions League Solidarity Fund, which is revenue paid to the

DFB from the Champions League, the top club competition in Europe.[273] For the 2009-

10 season, the amount of funding set aside for non-Champions League participants was

€7.5 million; each club can make "over €300,000 per season on the back of a good

youth academy."[274] The logic behind this source of funding is clear: effective academies

supply the league's best teams, which, in turn, succeed in the Champion's League,

providing revenue for the Bundesliga and DFB. This top-down investment drives the

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268 Ibid.
269 Ibid.
270 Ibid.
271 Ibid.
272 Ibid.
273 Ibid.
274 Ibid.

approach of each stakeholder in German football; the rationale holds for each individual

club as well. In fact, a club can financially benefit from player production directly, with

revenue from selling the player, or indirectly, from the winning to which the player

contributes. This additional possibility further encourages clubs to devote funds toward

their youth infrastructure, which improve their academies, netting them more funding.

The broad changes implemented by the DFB and Bundesliga have induced

philosophical and practice changes at the granular level of athlete development. A

primary philosophy behind the improvement of the youth training has been the

understanding that each "player needs individual attention."[275] This concept guides

many quotidian operations, as well as broader infrastructure. For instance, appropriate

interaction between senior and youth teams can provide benefits for each, especially

young players. At Mainz 05, 18 of the 22 on the first team are held for "seasoned

professionals and four places kept free for the most promising young players."[276] Since

the coaches of the club "always found that...only 18 players come into contention for

the team sheet...every weekend," the relatively small size of the team does not hurt its

performance. Carrying fewer players is less expensive, especially when four of the

players are youth players whose contracts are inexpensive. Such benefits are expressed

by Thomas Tuchel, former coach of Mainz 05 and current coach of Borussia Dortmund,

"the club saves on costs and youngsters get the best possible starting point from which

to launch their careers."[277]  Furthermore, given the small size of the squad, "every

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[275] Ibid. P. 33.
[276] Ibid.
[277] Ibid.

player knows and feels he has a real chance of playing," which Tuchel views as very important, "for the young players in particular."[278]

Of course, this arrangement would not be possible without proper preparation of youth players for the first team, which requires "an effective collaboration of the youth and professional levels," founded on "close, regular, and trusting contact" between the two levels.[279] Tuchel lists "clear standards of communication, with regular meetings taking place between the coaches and responsible administrators on both sides" as the framework by which this relationship thrives.[280] Players benefit immensely from cohesive relationships between senior and junior teams. Because "training routines are geared toward [a team's] philosophy in youth teams...young players in the first team already know what to do."[281] Here, the mission of providing each player with individual attention eases the transition of young players onto the senior team. Through providing such attention, clubs are also able to learn more about the youth players and how to best help them. Tuchel points out that "players who train with us or with other squads, whilst trying to do their A levels at our partner school are often at their very limits."[282] For this reason, Mainz appointed someone "to help the players of all teams better manage their burdens" under Tuchel.[283] Most often, according to Tuchel, players' training workloads were lightened, which points to the holistic approach taken by many of the Bundesliga clubs.[284] Indeed, "a survey led by Dr. Uwe Harttgen, former Bundesliga player...and director of the Werder Bremen Academy, shows that the proportion of high-school

[278] Ibid.
[279] Ibid. P. 34.
[280] Ibid.
[281] Ibid. P. 34-35.
[282] Ibid. P. 35.
[283] Ibid.
[284] Ibid.

graduates at the academies is higher than the national average."[285] Reducing the amount

of stress that comes from their training not only makes completing schoolwork more

manageable, it also helps "to ensure that players retain their joy and desire to play."[286]

This is another area in which close relationships with coaches, predicated on individual

attention, helps greatly. In building these relationships, coaches can put their training to

use in identifying what their players need, on and off the field.

The success of the German national team has certainly benefitted from the youth

academy investments made by the DFB and Bundesliga teams. Germany won the 2014

World Cup in spectacular fashion, flattening host country Brazil in a 7-1 semifinal game

before taking down Argentina in the final.[287] The training benefits extend beyond

augmented technical prowess, as "the social behaviour learned at the academies has

become, both at national team level and at club level, an important precondition for

team spirit and success." From a report in 2011, 19 of the 22 players on the German

national team were trained at Bundesliga academies, with 76 percent of players on

junior national teams also matriculating from academies.[288] As of the 2010-11 season,

there were 5,445 youth players in Germany who trained at Bundesliga academies,

ranging from the U23 to U12 level.[289] The amount of 'homegrown players,' who play

for the same team where they were educated, rose 5 percent in four years: from 15

percent in 2008 to 20 percent in 2011.[290] This figures ignores players who were

purchased by other Bundesliga teams; "of...525 players, 275 (52.4%) have been trained

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[285] Ibid. P. 5.
[286] Ibid. P. 35.
[287] "2014 FIFA World Cup Brazil™ - Matches - FIFA.com." FIFA.com. 2014. Web. Apr. 2016.
[288] Ibid. 10 Years of Academies: Talent Pools of Top-level German Football. P. 36.
[289] Ibid.
[290] Ibid.

at the academies. On average, around 15 players in the squad of every club have been

educated in one of the academies."[291] League President Reinhard Rauball notes that

these developments please fans, who "can increasingly look forward to seeing academy-

trained stars in the Bundesliga"[292] The surge in coaching certifications has certainly

fueled this growth, as over half of youth coaches held full time positions, with most of

the part time figures coming from coaches of younger teams, like U14s.[293] More

impressive is the fact that out of 260 Bundesliga academy coaches, 174 held either a Pro

or A level license, the top two categories. Taking into account the Bundesliga 2

academies, 66 percent were certified as Pro or A level coaches. These figures underlie

how the investment by the DFB and the Bundesliga, with help from Double Pass, has

produced a flourishing system of youth academies in German football. The players

produced by these academies has undoubtedly turned the tides of the DFB and the

Bundesliga teams. The 2012-13 Champions League final saw Bayern Munich triumph

over another Bundesliga club, Borussia Dortmund, bringing more money to the DFB,

and more money into the academies.


**Canada's Long-Term Athlete Development Model**

The Long-Term Athlete Development Model was developed in response to the

ineffectiveness of previous directives in Canadian sport, where "traditional approaches

have served to reduce participation numbers, led to poor results, and caused injury."[294]

In order to solve these problems and reverse these trends, LTAD codifies a combination

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[291] Ibid. P. 2.
[292] Ibid.
[293] Ibid. P. 40.
[294] Ibid. LTAD. P. 1.

of "the best research in sport science with the best practices in coaching and training."[295] In this way, LTAD aims to be an ideal model for the physical development and well-being of all Canadians, not just those aiming to be professional athletes. To that end, LTAD, and more broadly the national initiative Canadian Sport for Life, intend to combat increasing rates of childhood obesity, type 2 diabetes, heart disease, and strokes. This represents a key aspect of the model, that there is a path for every type of athlete, from the recreational swimmer to the aspiring international hockey star. However, there is no lack of depth in the LTAD model, as each sport-specific system provides incredibly detailed and comprehensive instruction for parents, coaches, and athletes. For this reason, LTAD certainly can provide insight on the ideal athlete development model and an NBA adaption. After all, in 2003, the Canadian Basketball program set out to become "a world leader in basketball [by 2020]"[296] and in doing so, redefined the youth relationship with the sport. The basketball model is guided by two principles, that every child is an athlete and that basketball is a late development sport. The resultant strategy of these two principles working in conjunction is a model which first develops a child's athletic foundation through basketball, then uses that athletic canvas to teach the game of basketball.

The catalyst for this change was aligning Canada Basketball within the framework of the country's LTAD, which provides sport models in 58 sports. The three priorities set out in achieving this goal are to "unify the basketball community," "develop an enduring economic model," and "build a dynamic developmental

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[295] Ibid.
[296] Ibid.

infrastructure by improving coaching at all levels."[297] The Canada Basketball Athlete

Development Model, or Basketball LTAD is a result and reflection of the broader

LTAD. It acts as a resource for parents, coaches, and administrators at all levels. By

ensuring broad access to LTAD, Canada has delivered an "aligned, consistent, and

systematic development system" which can meet the needs of everyone involved at all

levels.[298] The aim here is not to turn every seven year-old into a professional basketball

player, rather, it is to provide every seven year-old with the maximal opportunity to

access the sport at every level of participation. LTAD places emphasis on providing

such "paths to fulfillment."[299] A guiding principle behind these strategies is to "work

within what the child is open to learning at a certain point."[300] For this reason, the

development path splits into seven stages, Active Start, FUNdamentals, Learn to Train,

Train to Train, Train to Compete, and Train to Win.[301] Here, one can see that these

stages apply to the whole of Canadian youth, not just the children with aspirations to

play professional basketball. Every stage of the model is guided by the rationale that

"every child is an athlete."[302] Moreover, the model is not coach or institution oriented, it

is athlete oriented. By default, it is child oriented. Given that frame of mind, LTAD

creates a much larger pool of athletes, some of whom choose to pursue basketball. In

fact, the earliest stages are directed toward developing well-rounded athleticism,

cognition, and psychosocial abilities. Since basketball is a "late maturation sport,"

instilling capabilities that allow children to reach their highest potential takes

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[297] Ibid.
[298] Ibid.
[299] Ibid.
[300] Ibid. Bev Smith Thesis Interview.
[301] Ibid.
[302] Ibid. LTAD. P. 10.

precedence over teaching skills that are more optimally learned later in life.[303] This approach guards against children burning out on sport while maintaining all options related to sport.

Naturally, coaching is a cardinal resource for LTAD; certification is mandatory for those who coach basketball at any level in Canada. According to Bev Smith, an assistant coach of the Canadian Women's National Team, who helped develop LTAD, "with a curriculum like this, you're only going to be successful if you have coaching. Coaching development is a really integral part of that."[304] Canada's NCCP, the National Coaching Certification Program, trains and accredits coaches at every level throughout the country in multiple sports. Their aim is for each perspective and current coach to assess their own personality and strengths, then choose the coaching station which is suitable. This is not a system in which the most ambitious coaches coach the oldest or most elite players by default. The NCCP training improves a coach's leadership, decision-making, self-confidence, and skill set, as well as one's ability to instill those qualities in the athletes on the team.[305] In Smith's view, 'the art of coaching' relates to the relationship-driven aspects like eliciting a team's best effort and encouraging players to push their boundaries. 'The science of coaching' describes elements like knowing when to develop certain skills over an athlete's lifetime. Says Smith, "a lot of our coaches don't understand that, so they coach things way beyond the window of opportunity for kids."[306] For example, players at the third grade level need not shoot on fully sized ten-foot hoop to be great shooters as adults. "Let them shoot 100 percent at

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[303] Ibid. P. 4.
[304] Ibid. Bev Smith Interview.
[305] "Coaching Association of Canada." Coach Training in Canada. 2016. Web. Feb. 2016.
[306] Ibid. Bev Smith Thesis Interview.

the eight-foot hoop. They're going to get great form. They're not going to be a better shooter in 12th grade because [of shooting on a ten-foot hoop]. In fact, they might even be worse. The problem with that is you don't find out until 11th, 12th grade."[307] This instance demonstrates why the need for coaching development is such a key for player development.

The National Basketball Association has certainly felt the success of Canada's basketball reconfiguration. Over the past twenty NBA drafts, there have been 18 Canadian players selected, excluding Samuel Dalembert who became a naturalized citizen at the age of 26 in order to compete for the national team, per Basketball Reference Draft History. Of those 18, 14 players were picked during or after the 2010 Draft. This group includes two first overall selections, Andrew Wiggins and Anthony Bennett.  The consistency with which Canadian players are being drafted has increased by a large degree. From 1996 to 2006, a Canadian player was drafted once every three years. Those players are Steve Nash (1996), Todd MacCulloch (1999), Jamaal Magloire (2000), and Denham Brown (2006). Since 2010, the NBA has seen 2.3 Canadian players drafted every year. Most notably, aside from the aforementioned top picks, Canada has produced Cory Joseph (2011), Tristan Thompson (2011), Kelly Olynyk (2013), and Trey Lyles (2015).[308] The Canadian pipeline shows no signs of slowing down, as Kentucky freshman Jamal Murray and Gonzaga senior Kyle Wiltjer project as first round picks in 2016.[309] In fact, the success of LTAD's basketball model began even earlier, when the women's team implemented it in 1997. 10 years later, all levels

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[307] Ibid.
[308] Graphic of Win Share Production vs. Average Draft Value in Appendix E
[309] "2016 DraftExpress NBA Mock Draft." DraftExpress: Mock Draft. 2016. Web. 13 May 2016.

of Canadian international women's basketball finished in the top three in their respective competitions.[310] Since results determine funding, the men's team saw women's funding increase and decided to adopt model as well. (Smith) The result has been an emergence of both the men's and women's teams in preparation of the 2016 Olympics, as evidenced by an average increase of two Canadian players entering the NBA each year. While the NBA's efforts in Canada, as well as the rise of early 2000's Toronto Raptors star Vince Carter, have received media credit for turning basketball into Canada's favorite sport, LTAD has funneled this enthusiasm into a strong talent pipeline.[311]

Within each stage, LTAD outlines the learning capabilities of the child, any game modifications required, skills to be taught, and ideal development characteristic. Development characteristics are divided into physical development, physical capacities, mental and cognitive capacities, and emotional development. In each subsection, coaching implications of physical and mental growth considerations are given. This level of detail certainly acts as a guide for all stakeholders in youth basketball, excepted maybe by the participants. A major benefit of the model, in its content, distribution, and openness, lay in its usability for everyone. Naturally a coach will need some coaching-specific training, but having access to and being guided by a system such as LTAD provides a broader framework with which to frame day-to-day actions and long term goals. After all, the NCCP maintains an active involvement with the LTAD. The versatility of this document and accompanying Internet resources reflects the LTAD

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[310] Ibid. Bev Smith Thesis Interview.
[311] Jessup, Alicia. "How Basketball Overtook Hockey As The Most Popular Youth Sport In Canada." Forbes. Forbes Magazine, 12 July 2013. Web. Feb. 2016.

goal of inclusion and involving every child involved with basketball and sport in general. Furthermore, the Basketball LTAD is an outcome from the convergence of Canada Basketball, Sport for Life, and LTAD. This model showcases the holistic, systematic approach taken by all those involved. However, while this model is built in an economically sound manner, it requires a lot more than one may associate with a professional sporting league. These aspects are necessary for a holistic approach of this scope and magnitude. Further, they are all good recommendations which are soundly grounded. An ideal model for a professional league may not actively engage in a system starting at birth, but LTAD can certainly influence decisions or aspects of the system. For instance, LTAD's instruction on avoiding overuse injuries and burnout would influence at what age the model starts.

# Ideal Basketball Model

**Factors for Consideration**

When constructing the ideal system for athlete development, sport- and league-specific factors come into play. As one might imagine, certain sports require specialized approaches to player development. As a broad example, fundamental differences in individual sports, like tennis, and team sports, like basketball and soccer, necessitate slightly different developmental approaches. There are differences within team sports,

however. Each play in baseball is a discrete act, involving one player from each team, whereas basketball consists of 10 players moving in concert. While team cohesiveness and on-field communication are aspects of all sports, the importance and frequency of these activities varies. These sport difference dictate different training and player development models. A league's transactional structure would be an example of a league-specific factor which would affect methods of player development. Sport-specific factors, like the interchangeability of players, have influence on such league rules, which govern how and when players change teams. Which level of competition sits at the end of the development pipeline is league-specific factor. For instance, the Australian Institute for Sport, Australia's national athletic development center, which educates and trains the country's most talented young athletes, may have different long term goals than a Bundesliga club. While the interests of national governing bodies and professional teams often align, each of those stakeholders may have slightly different goals regarding player development. By examining the NBA and its league structure, in conjunction with key systematic attributes for player development models, one can establish which model best suits the NBA. There are many factors that attribute to the successful systematic development of athletes, each addressing separate aspects of that process.

The vast majority of the desired attributes are structural and address how systems should operate between higher and lower levels. While every aspect of an organization's structure is important, possibly the most important is the amount of funding available and the sources from which this funding flows. Proper funding enables other crucial aspects of player development, like coaching certification, to

function well. As with other types of businesses, the source of a model's funding determines what objectives will be met. Currently, apparel companies achieve two objectives through their sponsorships of youth teams: planting seeds for future big-name endorsers and endorsement effects from the actual youth team, growing basketball consumers. While these firms would benefit from building the skills of each individual athlete, helping to ensure that more players from their sponsored AAU teams become professionals than those of competitors, they still reap many benefits from the current model. This decreases their incentive to teach skill development, especially considering that professional players can change brands, as Kobe Bryant and, more recently, Stephen Curry have done. These incentives trickle down to coaches as well. Since adidas shells out big dollars for coaches with winning AAU teams, that will likely be the goal of most coaches. Inland Stars coach Joe Keller represents the effects of improper incentivization quite well. Though it is easy to see Keller as an absolute villain, another coach playing the role of the "unscrupulous middle-[man]," it was the manner in which his motivation was incentivized that produced such disastrous results.[312] "Keller has a young family of his own to support," and coaching an AAU team provides very little income or job security. The only path to such security lay in securing a shoe deal, which is achieved through winning at the youth level.[313]

Unfortunately, winning an under-13 tournament means virtually nothing for an athlete's long term development. But for Keller and his family, it meant everything. This creates an inherent predicament for Keller, who needs to win at all costs, but

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[312] Tjarks, Jonathan. "AAU Basketball From The Inside Out: 'Play Their Hearts Out' Digs Into The Trouble With Amateur Hoops." SBNation.com. 21 July 2011. Web. Apr. 2016.
[313] Ibid

whose responsibility remains helping kids develop as basketball players and people. Had Keller been educated in proper coaching principles, maybe his decisions would have been different. But another problem sits in the fact that he did not really make a decision, he just took action, because of the path to success which has been set out for him. Again, Keller's responsibilities as a father and family man contradicted his responsibilities as a coach and teacher, but because of the lack of coaching standards, it is unclear if he even knew about this contradiction. He may have thought that his actions would lead to the best future for his family and his players. Keller and the Inland Stars provide an unfortunate example of how two factors, funding-based incentives and coaching education, can work together to negatively impact player development when positioned poorly.

In the Bundesliga, however, one can see an example of those same factors aligned to assure that the best interests of the players and their development are met, which allows teams, the league, and the DFB to achieve their goals. Given that youth academies are compulsory for all teams, Double Pass rates academies on criteria set forth by the DFB and Double Pass, itself. The results of these ratings alone determine the level of funding provided to these academies, ensuring that academies are working toward the overall long- and short-term goals of the DFB. Of course, the bulk of the funding comes from the club itself. For instance, Bayern Munich spends about €3 million annually on its academy, with up to €300,000 coming from the DFB upon Double Pass ratings, amounting to 10 percent of yearly operating budget.[314] [315] These ratings are solely based on developmental, not winning-oriented criteria. In comparison

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[314] Ibid. ECA. P. 39
[315] Ibid. 10 Years of Academies: Talent Pools of Top-level German Football.

to the AAU or high school system, where teams and coaches can receive any amount of funds from apparel companies, this figure may not be very high. Nonetheless, it works to ensure that standards of athletic, scholastic, and personal development are met, something in which many clubs recognize value as well. Given how the source of funding impacts the effectiveness of the development system, an ideal system must secure funding through an entity which benefits primarily from long-term personal, athletic, and scholastic development of athletes.

The player endpoint of the model represents a key issue that is both sport- and league-specific. The player endpoint describes whether the development model funnels athletes through specific teams, like those seen in European soccer, or some other player acquisition method, like a draft or free agency. Individual sports, like tennis, or those consisting of discrete acts, like baseball, can feasibly have any endpoint. Tennis players are individual competitors and need not be assigned to any collective. In the MLB system, like most American sports, teams draft players who are eligible under league rules, then players continue their development in the minor league system of the team that drafts them. However, a baseball league could also feasibly operate through an NBA-like draft, in which players are not eligible until later in their development, after a given number of years in the NCAA or some other intermediary league. Given the relative interchangeability of baseball players, such a system would work, saving teams money from operating an extensive network of minor league affiliates. However, considering that not all MLB teams have an immediate need to add players to their active roster, but each has a strong need for reserve players during a 162-game season, the MLB almost requires the minor league system. Accordingly, in baseball, the desired

endpoint is for a player to be assigned to a team for further development and use as a reserve. Similarly, a sport in which players are highly integrative, like soccer, commands a high level of familiarity between players and coaches. So, in a soccer player development system, young players can benefit massively from having a years-long relationship with coaches and teammates despite having just arrived on the first team. This factor would necessitate a system in which clubs develop their own players, in order to ease the on-field transition.

Some leagues maintain flexible roster designations for young players. Examples include two-way contract in the NHL, by which a team can move a player back and forth between the minor and major leagues, and the special squad designations given to Generation adidas players in the MLS, whose salaries do not count against the team's salary cap, emphasizing development over production. Many teams across sports employ similar strategies, exemplified by Mainz 05 under Thomas Tuchel, which carried four top youth players on the senior team, or Filathlitikos' handling of Giannis Antetokounmpo, who practiced and played sparingly with the senior team while starring for the junior side. Deciding the transition strategy is a paramount aspect of a development model, and likely depends which team and league structures exist, as well as the competitive disposition of the senior team. For players within an academy or affiliate at a club, like in European soccer or the MLB, the senior and youth team's coaches can collaborate with each other and the player in deciding on if they are ready to make the leap. Teams in leagues with college and draft structures tend to allow only extremely limited contact with prospects, so parts of that decision fall unequally to different parties. Family members, coaches, and independent media can advise

prospects in helping to judge their readiness on different levels. In fact, college coaches very often maintain relationships with professional teams, though they certainly have incentives to oversell their players. A team's scouts and coaches can gauge skill from workouts and film, as well as getting to know players over the course of a draft cycle and through family or previous coaches. Perhaps, the main reason teams conduct so much background work in assessing a player's readiness is that there is so little to work with up front. A draft process is often limited to scheduled meetings, workouts, and visits, only after a player has declared, which takes place only months before most drafts. As a result of these factors, determining the ideal endpoint for players in a system likely dictates the start point as well. If it is advantageous for players to have long-standing relationships with many people within their club, they should most likely start at the club as early as is feasible. If familiarity with coaches and teammates has little effect on on-field production, the starting point is less important, so long as the player's developmental needs are being met. Familiarity with teammates, as it pertains to mentorship from veteran players transcends sport and league structure and is key for transitions into professional leagues and higher levels of play, as explained by David Vanterpool.

The biggest expenditure many clubs make when investing in academies is building devoted academy facilities. Many clubs, like Barcelona, seek to provide developing players with the "care and attention of a first team player."[316] State of the art facilities and equipment reinforce this care and attention in many of these cases. Barcelona's La Masia, an institution in its own right, was renovated in 2011 for around

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[316] Ibid. ECA. P. 36.

€8.8 million. During this process, the iconic Catalan farmhouse was decommissioned in favor of new facilities, of which the first teams and the academy makes use.[317] This investment was relatively small compared to other facilities, since Barcelona's academy has been established for decades. In direct recognition of the work done at La Masia, MLS club Real Salt Lake recently announced its plan to construct the Herriman Complex, "a 42-acre, $50 million training facility."[318] Aiming to "enmesh [the club] into the bedrock of Utah soccer," Real Salt Lake has also started building a "group of $2 million indoor/outdoor facilities" elsewhere in Utah through its RSL Youth Academy Foundation.[319] This initiative represents the cost of trying to catch up to clubs like Barcelona in the American environment. It is key that facilities such as La Masia and the Herriman Complex aim to serve all facets of the club, economically and functionally.

Housing every level of the club within one facility can result in easier communication between the developmental and senior levels of the organization, which is a feature of many successful models. As demonstrated with German soccer by Thomas Tuchel, manager of Borussia Dortmund, "effective collaboration between the youth and professional levels" has a meaningful impact on the success of youth players and the senior team.[320] Proximity to the senior team remains a priority for MLB and NBA minor league teams. For MLB teams, the constant possibility of players being called up for an injury replacement represents a large benefit of situating Double- and

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[317] Shahin, Ahmed. "La Masia: The Pinnacle Of European Football Youth Academies – Fact Or Fiction?" Barca Blaugranes. 08 Dec. 2014. Web. Apr. 2016.
[318] Nielsen, Kevin. "Seeking "that Herriman Messi", Real Salt Lake Facility Plan a "big Step"" MLSsoccer.com. 10 Apr. 2016. Web. Apr. 2016.
[319] Ibid.
[320] Ibid. 10 Years of Academies: Talent Pools of Top-level German Football. P. 34.

Triple-A teams close to their parent clubs. However, since replacement players can easily plug themselves into a team and contribute, the benefits of training with the first team are diminished. Of the 30 Triple-A MLB affiliates, roughly half are within a 4-hour drive. NBA teams with close relations to their D-League team, like the Dallas Mavericks, have already found success in integrating training routines and play terminology with nearby affiliates. The Mavericks' D-League franchise, the Texas Legends, resides in nearby Frisco, TX, which allows young players to train with the Mavericks and play games with the Legends. That situation has paid off for Dallas rookies Justin Anderson and Salah Mejri, who has each recorded meaningful and productive minutes in the playoffs despite sporadic playing time during the season. Given these successful arrangements, one can see how one facility which serves all aspects of the club can decrease the complexity of travel and communication for coaches, players, and executives. However, in a situation where players are more interchangeable, the benefits of an aforementioned 'multiplex' may not be as large. A national body, and many European clubs, have to further consider multiple sports in this equation. For a national body, senior players are occupied with club competition through much of the year, so a central location where athletes from different sports train at different times would help increase a facility's use. An integrated facility certainly increases the ease with which youth players can train with senior staff and players, and the ease of collaboration between senior and youth staff in all areas of the club. However, these benefits may not apply evenly to all sports or organizations.

Conversely, the ideal level to which an organization sets and enforces scholastic requirements, offers academic assistance, or teaches in-house, is not determined by

sport. Rather, a number of organizational and societal factors come into play. For instance, if a majority of players who pass through an academy do not have access to quality schooling, the club may feel that providing them an education is simply 'the right thing to do.' While an organization may feel duty-bound to educate players strictly based on an altruistic mindset, providing athletes with an education can certainly benefit the club and a league. For instance, Arsenal's youth players attend their normal schools until they turn 16, at which point they receive specialized lessons from the club. These lessons include lessons on sport science and coaching, which can enable those who do not make it as players to harness their sporting knowledge professionally. Should a player become a coach, surely they would be a great candidate for the club that trained them, already possessing intimate knowledge of the club and the life of a developing player. Even for those who do end up as professionals, an understanding of sport science would likely lead to greater understanding of one's own physical needs. This knowledge could lead to an enriched collaboration between a player and a training staff, which may lead to better training habits. There are a number of ways in which a club can aid the scholastic development of its young players. Aside from hiring a team of teachers, like Bayern Munich, an organization can form a partnership with a school, like in the case of Findlay Prep or some MLS academies. This allows the club to ensure that athletes are educated, provided that they communicate well with the school, without branching out into the business of education. Clubs can also hire tutors for students for general studies or in preparation for certain standardized tests, like the SAT. Regardless of the educational resources made available, the club can institute rules mandating minimum academic standards for participation in games or training, like Steve Turner's

AAU team. While many American schools institute such rules, they are often worked around in pursuit of team victories. In an academy focused on the individual development of its players, this incentive is greatly diminished, so such rules would have greater likelihood of being followed. For many reasons, like the potential to employ scholastically and athletically educated players, an entity may want to facilitate, sponsor, or involve itself with the education of a developing athlete.

Another important, on-the-surface-altruistic factor in player development models is how much athletes should be paid, or how much athletes should pay for training. While the United States, largely through the sway of the NCAA, has strict amateurism rules, by which an athlete cannot compete at the NCAA level if he or she has received any payment for his or her athletic performance. In basketball and football, the lack of an alternative bridge between youth sports and the professional level provides an incentive for athletes to remain amateur. Though many athletes are still 'improperly' compensated, as seen with Michael Beasley, the regulations are effective, and controversial, given the amount of revenue generated through NCAA men's basketball and football. These regulations affect other sports as well. Where most soccer academies are essentially free for young prospects, the tuition of MLS academies can reach $2,500 per year. This fee is similar to those for AAU basketball teams. Though a market exists for these development services, each model could gain more through providing them for free. If a player rises through an MLS team's academy to the senior team, that team has the exclusive rights to sign that player for to a contract which has a high value for the team, as young players are always the least expensive.

In the case of an AAU team, while the coach may not financially benefit from training a player who makes it big, the apparel company which sponsors the team likely will. Since the player has grown up wearing their shoes, they have an inside track to sign them as an endorser. The biggest problem of the 'pay-to-play' model, and the biggest benefit of a departure from it, is the fact that constructing a pay-wall to youth sports cuts out a large segment of potential participants. It is no secret that a large proportion of professional athletes hail from modest financial means, so filtering young athletes based on ability to pay for training hampers the whole system. Moreover, the financial aid offered by some AAU teams often comes at a great future expense to players, as illustrated by Curtis Malone and DC Assault, whose coaches may end up picking their players' college and agent.[321] As stated by Jonathan Abrams, "a lot of [NBA prospects] come from impoverished conditions and this is like an urban lottery ticket almost where you try to grab it as soon as you can, and try to lift your family out, even if you're not ready, physically, mentally, or emotionally, to make that jump."[322] Lessening the financial burden for families and players can ease some of that strain. Paying players before they turn professional can also help reframe the decision of going pro into a developmental, not financial terms.

A compelling factor in the investment by clubs in player development systems is the influence of national governing bodies or leagues. For example, the compulsory establishment of youth academies for Bundesliga teams handed down by the league and the DFB, the governing body, was a key driver of the model's eventual success. While incentives to running a successful academy had been previously present, the additional

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[321] Ibid. Thamel, Pete.
[322] Ibid. Lowe Post – Jonathan Abrams.

emphasis by the DFB, along with its guidance in establishing a defined vision for the whole of German soccer, were crucial to the growth of the academies. Every stakeholder involved with German professional soccer benefitted from this shift, which raised the level of German football in domestic and international contests. A partnership between a governing body and its leagues, in centralized resources like money and information, can trickle down to help each team in the league and their players accordingly. For the governing body, an underperforming national team may provide sufficient incentive to get involved with the practices of professional leagues, like in the case of German football. In many instances, like in Canada, results determine a body's funding. This was the primary reason behind Canadian men's basketball adopting the LTAD model, having seen the success that the women's team had implementing LTAD. From a league's perspective, partnering with a national body opens up more diverse pool of resources than individual teams or leagues often possess. It also may be possible for a league to partner with more than one national body if it establishes systems in multiple countries. For instance, the MLB academies in the Dominican Republic greatly benefit the Dominican baseball team, who competes directly with its American counterpart. In a hugely competitive environment like international soccer, a league may not feasibly partner with another national body without alienating its own institution, surely the DFB would balk at the Bundesliga involving itself with the soccer federations of France or Brazil. However, as illustrated by Barcelona's relationship with the Samuel Eto'o foundation, a team or league need not partner with a country's national governing body to attract its athletic talent.

One large benefit to partnering with the domestic national governing body is its

broad access to apply coaching standards and certification, a central aspect of any

development system. For instance, Canadian basketball coaches at any level must have

a license through the NCCP. This arrangement required the participation of not only

Canada basketball, but also the individual youth leagues and associations in Canada, an

initiative which may not appeal to a professional league. The USSF offers many levels

of coaching licenses, much like UEFA, which governs European soccer. In many

instances, certain licenses are required to coach in certain roles; for example, in

England, one must receive the UEFA A License to coach below the Premier League

level.[323] Similarly, MLS academy coaches must hold at least a B level USSF License.[324]

Commonly, a club will pay for its coaches to receive additional licensing if necessary,

or for a former player to be licensed when embarking on a coaching career, if needed.[325]

A national body can handle all aspects of coaching education including composition of

curriculum, actual licensing of coaches, and encouraging youth leagues to require

licensing through subsidization. A league can add value to all of these stages through

endorsement, and can help in defining the sport-specific vision to which the curriculum

applies. Coaching education and licensing is a key aspect of an athlete development

system, regardless of sport; in partnering with a national governing body, leagues and

teams can assure that this requirement is met without a hands-on approach.

In designing a coaching curriculum, the developmental needs of children of any

given age should be considered in context with the demands of the sport in question.

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[323] Telegraph Sport. "Arsenal Legend Thierry Henry Is Closer to Becoming a Manager." The Telegraph. Telegraph Media Group, 11 Mar. 2016. Web. May 2016.
[324] Ibid. US Soccer Development Academy announces expansion into Under-12 age group, splits U-13 and U-14
[325] Ibid. Telegraph Sport.

Given that a person's mental and physical capabilities develop as they age, coaching

curriculums must mirror this path. For a late-development sport, like basketball, these

needs are quite specific at each developmental age range, and are laid out by LTAD's

basketball document. Soccer provides similarities in the proper approach to

development, as both LTAD and soccer academies aim to tailor sport-specific training

to the needs of children, not vice versa.[326] Structure of youth leagues, therefore, should

also reflect these training adjustments. The MLS has incorporated these adjustments

into its youth leagues, as they "remov[ed] standings and [have] a no-trophy league" at

the U-14 level, freeing up clubs to "focus on the individual player path and plan"[327] The

league also hopes to avoid "sport- and period-specific specialization," attempting to

avoid burnout and enable athletes to play multiple sports. These measures are effective

for all sports, as they can help potential pitchers avoid ruining their arms and help

potential big men develop well-rounded skill sets. Placing regulations limiting practices

for certain age groups, as well as instituting development-friendly game modifications

are also actions a league can take to help foster proper coaching habits in its youth

system.

These modifications are made to other independent youth leagues insofar as

partnerships with these leagues exist. One strategy that has been utilized in some

academies, like the English Premier League's Southampton, is bio-banding, which a

league or club may want to pass along to its local youth sports partners.[328] Bio-banding

groups children together based on their physical developmental progress rather than

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[326] Ibid. ECA. P. 37.

[327] Ibid. US Soccer Development Academy announces expansion into Under-12 age group, splits U-13 and U-14

[328] Moore, Henry. "FA Steers Coaches in Creative Directions at the Grassroots." The Independent. Independent Digital News and Media, 13 Nov. 2015. Web. Apr. 2016.

their age. Players are grouped based on their current percentage of adult height, predicted using a formula based in-part by parental height.[329] Southampton's head of sport science, Aleck Gross, explains that while this is helpful for late-maturing prospects, who "'typically develop better technical skills to compensate for their lack of physicality'...it also helps early developers, who fail to develop those skills as they can get by on size."[330] Such a strategy can be implemented in independent youth sports associations, at the behest of academy partners, which will help provide proper development of a greater number of players moving forward. Many clubs and leagues, including the MLS, the Bundesliga, and Barcelona, maintain relationships with youth sports associations in their area, sharing best practices as a means to increase youth access to top coaching. The Bundesliga actually opens Double Pass certification to these partnered associations, so they, too, can benefit from the consulting firm's impartial and experienced judgements. This relationship underscores that information sharing is the key to maximizing these connections to ensure that every possible potential professional benefit from the best possible experience with coaches and the game, itself. The value of molding non-elite players into coaches or other sport-specific staff has been previously discussed, but there is further value in young athletes having good experiences with sport. Namely, as those former academy players age, provided that they have positive memories associated with a sport, they will become fans of the league. As those who play a sport competitively tend to be the most avid fans, the value of assuring that all youth athletes have positive experiences can be seen, and further realized by partnering with independent youth associations.

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[329] Ibid. Moore, Henry.
[330] Ibid. Moore, Henry.

Another area in which a relationship with other youth associations can help an academy is in scouting. Many clubs, including many MLS teams, use these relationships in order to identify players who may have the necessary talent to join their club. This can best be accomplished through coaches, who have a bead the personality and ability of their players. For most clubs, these connections only make up part of the overall strategy, which is clearly defined. European soccer clubs seek mostly domestic players, which is a factor of convenience and cost, both to players and the clubs. Most clubs can only house a small number of foreign prospects, for whom being away from home is quite difficult. Moreover, there may be costs involved with teaching said player the native language. In terms of actually selecting players, many clubs, like European and MLS teams, will invite players who have been identified by scouts to try-out training sessions. In an effort to uncover more about a prospect's personality, some clubs offer tryout periods of one to two weeks. Scouting is an ongoing process, however, as teams monitor progress of academy players throughout the year, with an annual review typically deciding if a player remains with the club. Deciding the frequency of these reviews is a delicate balance, as one must consider both realistic expectations of player improvement and the overall needs of the team. Some clubs will conduct bi-annual reviews, in which coaches can provide more detailed reports to players about their status. Of course, the age of the players plays a role in this decision; an 8-year-old probably cannot handle the in-depth review a 16-year-old would likely want. Moreover, for late-development sports, rating a 16-year-old's talent most likely is far from a perfect science, as many aspects of their body and personality are still developing.

Regardless, providing those perceived top talents with proper coaching will certainly aid in their pursuit of becoming a professional. However, attempting to identify players early in life will always leave out many athletes who will eventually become quality, if not top-notch, professional talents. 'Late-bloomers' may develop late for many reasons, like the delayed growth spurts of Anthony Davis and Kelly Olynyk, or through a chip-on-the-shoulder work ethic like Jae Crowder or Michael Jordan. After all, many players in late-development sports develop late, as simple as it may seem. Addressing that talent identification challenge is tricky, but may be helped with something similar to the MLS player intake model, which demonstrates how the scouting process can dictate the player induction structure. MLS teams can bring players up through youth academies, but can also access players developed through independent youth clubs and the NCAA through the MLS SuperDraft. In such a system, top youth talents will likely end up in academies, whereas late-bloomers rise through the high school and college ranks. This underscores a huge benefit of maintaining connections to other youth leagues, in an effort to provide every potential professional with the tools they need to achieve that goal. In assessing the proper scouting strategy for a league, national body, or team, sport- and league-specific factors arise. Scouting is not a perfect science, and many teams weigh specific criteria differently. Scouting and coaching are two areas which a single club or league cannot oversee for an entire youth sport population, especially in larger countries or over multiple countries. Because of this constraint, partnerships with national governing bodies and local, independent youth leagues are often brokered in order to make sure the needs of players, and therefore clubs, can be more broadly met.

The physical development of athletes, as well as protecting their physical, mental, and medical well-being is a factor in athlete development which involves many groups of people. Much like the benefits clubs can reap from reinforcing or providing education, or providing training at no cost, the discussion of whether a club should pay for a prospect's medical expenses can be framed altruistically or in terms of team benefits. Both lenses, however, lead to the same conclusion. As far as providing medical care, the case of Barcelona covering the cost Lionel Messi's growth hormone disorder treatments stands as an example of how both players and teams can benefit from club-sponsored medical care.[331] Conversely, the passing of promising Dominican prospect Yewri Guillén illustrates that while many young prospects have the talent to catch the eyes of professional teams, their financial situation may restrict their access to things like medical care or proper schooling. Clearly, access to medical care is an aspect involved with athletes reaching their full potential. In an academy setting, physiotherapists are typically employed by the team and work with players to build athleticism in an age-appropriate manner. As put forth by Canada's LTAD, the physical development of athletes sets the table for skill development, so it must be properly carried out. While not all youth teams can staff physiotherapists, it is important for coaches to be educated in how physiological factors affect their players and their development. For instance, because speed is a function of the central nervous system, it should be trained at the start of practices, when athletes are fresh.[332]

Again, league or team partnerships with national bodies and other youth associations can help formulate and carry out coaching education in order to assist the

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[331] Carroll, Will. "Breaking Down Messi and HGH." Bleacher Report. 23 Jan. 2013. Web. Apr. 2016.
[332] Ibid. Bev Smith Thesis Interview.

development of the greatest number of possible prospects. Psychological support is also a factor in helping athletes develop toward their highest potential. Clubs like Bayern Munich consider themselves "developer[s] of personalities."[333] In order to accomplish this goal successfully, clubs must support the mental development of their players. As Thomas Tuchel points out, the pressure to young athletes of participating in high-level athletics while completing school is quite high.[334] In the example of Mainz 05, a position was created "to help the players of all teams better manage their burdens," which, in many cases, meant decreasing training workloads.[335] Tracking and helping to improve the mood or mental state of prospects is crucial, especially in light of recent research around mood-dependent workload difficulty, which posits that athletes' perceptions of training difficulty is heavily influenced by their mood.[336] Team-dynamics also play a role in this, as the general attitude and culture of a team carries a lot of weight in impacting the mood of individual players. One can see that recognizing such needs is made easier through integration of sport and school, but can still be achieved through communication with teachers, parents, and the athlete, himself. Gonzaga Prep coach Steve Turner shares that view, claiming that "communication is the key to everything."[337] Again, many youth teams may not have the capacity to appoint a salaried psychiatrist or other such support, but a properly trained coach can certainly make the call to decrease a player's training demands.

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[333] Ibid. ECA. P. 40.
[334] Ibid. P. 35.
[335] Ibid.
[336] Althoff, Andrew. Nelson, Josh. " How In Game Use of Wearables Increases the Power of Predictive Injury Analytics." Proc. of Sloan Sports Analytics, Boston, MA.
[337] Ibid. Turner Thesis Interview.

In deciding an ideal model for athlete development, figuring out what is best for athletes in a given sport is always the best place to start. The bottom line of athlete development, from the perspective of every stakeholder, is that if the needs of athletes are not met, the rest of the system falters. Figuring out what that system looks like is a function of figuring out the joint needs of players and top-level stakeholders concerning factors of youth development. Some of these factors, like education, physical training, and medical care, transcend a single sport or league. However, decisions in many areas will differ across sports, leagues, countries, and most importantly, individuals. These differences dictate different training regimens, which affect the structure of leagues, teams, and games. This outlines how broad edicts, like training athletic skills before sport-specific skills, can shape the structure of a youth league in order to better enable small details like game modifications. A central focus of every system is for all stakeholders to be united and collaborative in development. The importance of top-level stakeholders informing and supporting coaches, athletes, parents, is paramount, as each member of the community plays different roles in different stages. While the demands of raising a child may require a whole village, it takes a holistic athlete development model to raise an athlete.

**Ideal Model for Professional Basketball**

In considering the ideal athlete development model for professional basketball, the training stages and practices laid out by Canada Basketball's LTAD should be followed in segmenting training. LTAD establishes good practices for coaches and parents, in which they can lead players in order to build athleticism and skills through constructing proper training habits and culture. Since basketball is a late development

sport, but the peak trainability periods for many athletic attributes occurs so early, top-level stakeholders like professional leagues and national associations should ensure that the maximum number of children can reach their athletic potential during these peak trainability periods. Peak training periods for attributes like speed, power, motor skills, and coordination, first take place between the ages of 7 and 12, before the optimal period for sport- or position-specific specialization.[338] For this reason, top-level stakeholders should evangelize proper training techniques through investment and endorsement empowered by information dissemination. This includes information about game age-specific game and league modifications, skill training, and athletic training. The LTAD document lists best practices in each one of those areas and should be shared with youth leagues, coaches, parents, and players. Generally, for these lower development levels, the focus remains on having fun and establishing athleticism through the game of basketball and away from engaging in the competition of basketball. Building proper training habits, like warming up and cooling down, as well as aspects of training culture, like self-evaluation and reflection, are also key factors in these development periods. The details of these ideal practices can be found in the LTAD Basketball document.[339]

In a large country with centralized national bodies, or spread out loci of control, like the United States, implementing and controlling these training methods can be quite difficult. That responsibility likely falls outside of the realm of a professional league whose teams are not directly involved with any of the players at that level. Furthermore, the concept that youth development should, at its lowest levels, be insulated from

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[338] Ibid. LTAD. P. 14.
[339] Stages of LTAD directly quoted in Appendix F

regime changes at the top professional level provides another compelling development

reason for clubs not to be directly involved with those stages. A relationship with state

governing bodies, as well as an impartial evaluator, would sufficiently assess the state

of youth basketball organizations and determine which were worthy of funding,

endorsement, or both. Belgian company Double Pass, which has worked with the

Deutscher Fußball-Bund (DFB) and the United States Soccer Federation (USSF), and

has experience in basketball.[340] Close relationships between Double Pass, regional or

state governing bodies, independent youth organizations (like the YMCA or AAU), and

top-level stakeholders could yield better youth training practices nationwide. In fact,

Double Pass, upon hearing of this thesis, expressed interest in working with the

American basketball pipeline.[341] Building relationships with state athletic associations,

as well as AAU or YMCA teams, can aid the scholastic front as well. Since state

athletic associations oversee schools, this network of relationships can be used to more

strictly enforce scholastic requirements and deter schools from 'pushing kids through.'

Through top-level stakeholders providing a carrot instead of a stick, schools will seek

out the benefits of educating athletes rather than avoid the punishments of being caught

giving grades away. AAU and YMCA teams could require the submission of report

cards in order for players to participate, in the mold of Steve Turner's AAU team.

By endorsing the schools or independent associations whose methods are up to

standard, top-level stakeholders like USA Basketball or the NBA would give them more

legitimacy which would attract more young athletes. Top-level stakeholders like apparel

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[340] Vansina, Steven. "Researching NBA Player Development." Message to Connor Williamson Feb. 2016. E-mail.
[341] Ibid.

companies could also provide some legitimacy through endorsement, but could also offer discounts to players or teams on shoes or clothes, incentivizing proper training while further associating themselves with other stakeholders like the NBA and USA Basketball. Monetary sponsorship from the NBA, USAB, or like-organizations would help defray the cost of participation, further incentivizing young athletes and their parents to join organizations who follow best practices. If these teams were available for free through cooperation with schools and independent youth associations like the AAU and YMCA, this structure could eliminate much of the cost barrier. By incentivizing young athletes and their parents to participate in better training, even at the lowest levels, top-level stakeholders like the NBA, USA Basketball, and apparel companies can benefit through increased community goodwill and brand loyalty to basketball and a specific league or company. Of course, the main benefit would be better preparing players for the next stages in their development, whether they end up in the NBA or Nike's marketing department, as players, coaches, trainers, agents, or marketing experts.

In order to increase the amount of young athletes being properly instructed, the amount of trained and educated coaches also needs to be measured and increased. In such a partnership between top-level stakeholders and youth leagues or associations, the youth leagues will help implement best practices that have been laid out in return for subsidization from top-level stakeholders. However, coaches must also learn about these methods and their application through training at different stages of development. These coaching training sessions can be completed through a mix of online classes and in-person sessions with a local youth league. One of the two biggest weaknesses of the

current USA Basketball coaching certification program is its unavailability. They offer coaching licensing and a coaching academy, but academy sessions last only two or three days and are available in four cities.[342] One can complete the licensing certification by simply filling out an online profile and three hours of online coursework.[343] Once a coach completes a background check and pays a fee, they receive a USA Basketball License. However, neither the AAU, YMCA, NCAA, nor any other amateur basketball organization require that their coaches become certified, which is the other primary weakness of the system. The primary benefits to the license, as stated by USA Basketball's site, are access to the Youth Development Guidebook, liability insurance, coaching education, and the ability to promote one's self as a USAB licensed coach. The USA Basketball Youth Development Guidebook informs the classes and acts as a resource for coaches who complete their licensing.[344]

Though USAB has created standards for youth development and youth coaching, these standards are not required by any youth association. Moreover, the standards are not high enough to make a lasting difference, with coaches only required to take two online classes. While that may suffice for training the youngest level of athlete, three hours of online courses may not qualify the coach of a high school team. Training issues apply differently to each stage. For example, according to LTAD, while youth athletes should be given equal roles and treatment to avoid influencing development through social expectation, older athletes should learn to accept roles in order for the advancement of the team. By integrating heavier, more detailed licensing

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[342] Ibid. USA Basketball Coaching Licensing.
[343] Ibid.
[344] Ibid.

requirements with a partnership with organizations like the YMCA and state athletic associations, USA Basketball can reach a higher number of coaches and players more effectively. Again, this would likely involve developing a tiered licensing system, like that of UEFA or the USSF, in which certain coaching positions require designated certifications. This reach includes in-person courses when necessary, conducted by either a regional USAB staff or USAB-trained members of these youth associations. It also includes an expanded repertoire of online courses for higher levels of coaching, and the requirement that these certifications be met before one coaches at a given level. An important fact to remember is that much of this information exists and is broadly available. The Canadian LTAD documents for all sports are downloadable and free. The crucial development, however, is for USA Basketball, through youth sports associations, to put this information in the hands of its coaches, parents, and players. For instance, rather than, making the USAB coaching handbook available to only certified coaches, they should expand and release the handbook, making it the basis on which coaches get certified. Coaches should be able to recognize the basic characteristics, performance capabilities, and performance indicators of physical, mental, and emotional development of their players. Furthermore, they should have a firm grasp on the coaching implications of these attributes.

At the conclusion of the first two development stages, FUNdamentals and Learn to Train, which lands roughly at age 12, athletes should be split into recreational and non-recreational sections. For clarification, the non-recreational segment would have the same amount of actual recreation as its counterpart, but non-recreational is used to refrain from using the term 'competitive,' for which players of this age are not ready.

While both the recreational and non-recreational leagues will follow the protocol laid out by LTAD in the first stage of Train to Train, this move serves to group the most talented, or earliest developing, athletes together. The decision of which path to take would involve a player's coach, family, and the player, himself. For those who enjoy basketball but do not want to pursue a career, the best option would be to attend a school with a recreational basketball program. Those who are early developers, who express interest in becoming professionals should matriculate into schools with non-recreational programs or extracurricular programs like the AAU or YMCA. Those in the middle, who may want to become a professional, but are late-developers, would likely require the most mobility between tracks and should enter one not affiliated with a school. The reason being that if a 13-year-old grows five inches and wants to pursue basketball, he would not have to leave his school to switch teams, he could maintain his scholastic life while transitioning to a new team. Though this split can be seen as an 'exit-ramp' from the professional athlete development pathway, there would be plenty of opportunity for those who participate in the recreational leagues to move between leagues. Players in schools with recreational programs could stay in school and switch to a non-recreational extracurricular team, like in the AAU. Conversely, athletes at schools with non-recreational programs can join a recreational non-school team, like in the YMCA. Alternatively, if a child is particularly gifted scholastically and wants to attend a school without a system-integrated basketball team, they can choose to join whichever non-school league suits them. Giving kids these options and maintaining their flexibility within the development structure helps to ensure that the system can meet the varying needs of each child in all areas.

Clearly, by placing parts of the development system in schools, the model requires the connection between schools and top-level stakeholders to be strong. Open, collaborative communication, along the same lines that German soccer coach Thomas Tuchel emphasizes, are the key to that relationship benefitting everyone involved. This relationship is key in gauging and balancing an athlete's overall workload, between school and sport, as well as making sure that athletes complete their scholastic requirements which are, understandably, less appealing than athletic commitments. Players who shirk their academic responsibilities should not be allowed to participate in basketball activities, a rule used in Bundesliga soccer academies like Bayern Munich. In a large, de-centralized country like the United States, state or regional associations may need to be involved in this collaboration as well. Collaboration at the youth level can only benefit players. For instance, athletes at this level should not spend all of their spare time playing basketball, so in order to avoid overuse injuries and burnout, they should only be allowed to join one team. A well-coordinated system would be able to guarantee this, as state associations would notice that a player is already playing for a youth team if he were to attempt enrolling in another. A top-level stakeholder can more realistically deal with 30 regional associations than hundreds of schools across the country. The same applies to educating and registering coaches who, because they lead these school or non-school youth teams, should also have strong connections to stakeholder associations and schools.

Coaches are essential in following through on procedures in every area, from age-appropriate game modifications to verifying an athlete's academic progress. For that reason, information on how best to collaborate with teachers should be part of

coaching education, even if covering simple aspects, like figuring out the right questions to ask. An important aspect of this joint effort will be figuring out a player's best learning style and how to teach them information accordingly. For teams affiliated with schools, the coach-teacher relationship can come more easily, as coaches can receive feedback about their athletes' personal and academic well-being on a monthly basis by simply meeting with school faculty before practices. Coaches of independent youth leagues may be required to meet with teachers separately, as not all players necessarily attend the same school. The costs of participating in these teams should be negligible to players and parents, insurance and a minimal registration fee, to ensure that the maximum amount of athletes can play. Funding for those sponsored programs should be apportioned to teams on the same basis as the previous stage, in which programs are assessed, then awarded affiliation with and funding from top-level stakeholders pending a favorable assessment. This will allow the overarching structure of the development system to work in support of existing infrastructure of school or independent basketball leagues, rather than act as a competitor, which is counter to the long-term goal of athlete development. In the same manner as the Barcelona youth teams compete in local Catalan soccer leagues, the 'USA Basketball sanctioned' AAU or middle school teams could compete in those respective leagues.

During the beginning of second half of the Train to Train stage, which typically starts at age 14 for males, instruction becomes more detailed and games start to more closely resemble those at the senior level. Due to this progress, the demands of the development system increase and become more professional in nature. Because of the increased specialization at this level, as well as the fact that the fastest developing

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athletes are only five years away from being able to play in the NBA, teams should set up youth academies for athletes in the second half of the Train to Train level. These academies will carry athletes through to the professional level with the same teams that trained them, allowing organizations to impart team cultures, tactics, and strategies, which will ease the eventual transition to the professional level. Each player would be invited to participate on a yearly basis, with an evaluation at the end of the year deciding if he returns to the academy for the following one. These academies would function outside of schools, while still coordinating players' academics with their schools. The main benefit being that if a player cannot continue at an academy, they can continue to attend the same school and limit the amount of disruption caused by switching basketball teams. Of course, many players would likely jump to another school to pursue basketball, but keeping academy independent of schools would at least keep open the option to stay at a given school. At the academy level, keeping player costs to a minimum or to zero is crucial for attracting and retaining players. During players' mid-to-late teen years, their stock as players starts to take on actual value, giving them leverage to switch between teams freely, like Michael Beasley. This rise in value continues into their college years, as does their transfer rate. According to the Washington Post, the "average college basketball player is worth over \$200,000 based on Win Share and revenue valuations.[345] Paying academy prospects would provide the greatest incentive to attract players. However, teams would employ tutors to support players' scholastic achievement amid their increased training loads. Players could earn deferred scholarship money based on high school grade performance or be

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[345] Greenberg, Neil. "The Average NCAA Basketball Player Is worth \$212,080." Washington Post. The Washington Post, 11 Aug. 2014. Web. May 2016.

automatically granted a scholarship upon graduation. Though the former could possibly be an NCAA violation, the latter could be deferred until they join the D-League months later, when they become professionals. That would also decrease cost, as those who played in college on athletics scholarships would not need one. In addition to academic support and grants, there should be someone at the academy, other than the coach to monitor the overall well-being of each player, in terms of their overall workload and stress level, as described by Thomas Tuchel of Mainz 05. Athletic trainers should also be part of an academy's staff, who handle day-to-day training and conditioning, but also measure an athlete's growth in accordance with LTAD procedures to determine the optimal training for each specific player.

During the school year, academy teams could compete against high school teams in that area. Over the summer, right after school ends, academy teams could play against each other in a tournament format or simply a series of exhibition games. While players in the Train to Train stage would be best served with the exhibition model, players in the Train to Compete stage could play in a tournament which is marketed and broadcast. Through that type of event, teams could see a front-end monetary profit, using it to sustain their academies. Alternatively, profits could go into a scholarship fund for players who turn professional after graduating from an academy, since they would automatically be dubbed ineligible for college competition as professional players. Regardless of how any potential revenue from a summer tournament is spent, athletes at that stage are ready for serious competition in the right dosage. Train to Train and Train to Compete athletes would have a regular season with the LTAD recommended practice-to-training ratios of 4:1 and 3:1, respectively. End of season

competitions against other academy teams would serve to allow the best players to

compete against each other as well as provide the loose, summer environment many

players enjoy in the AAU. This event would also open up sponsorship opportunities for

academies, and possibly allow the more advanced players to interact with several

potential sponsors or agents as they continue their preparation for their professional

career. Academy prospects should have interactions with first team and D-League level

players and coaches. Players from the first team and D-League should be encouraged to

attend a number of academy practices for Train to Compete players, helping to motivate

and reinforce team culture. Moreover, allowing academy players to attend 'open gym'

sessions after first team practices would provide access to the type of mentorship so

valuable to young players. During an appearance on the Lowe Post, highly respected

NBA coach Tom Thibodeau recalled what a similar arrangement provided an eventual

NBA player, then-high-school-prospect, while Thibodeau coached with the Philadelphia

76ers:

> "We practiced at St. Joe's and he would be there all day long. He would wait for
> any NBA player to come and try and play him one-on-one. In Philly, in the fall,
> everyone would be there, you had the best college players, you had NBA players
> from other teams, it was a great environment...He'd always grab a coach, 'can
> you work me out?' His work ethic was incredible."[346]

That player was Kobe Bryant, who, unable to find suitable high school competition,

made his way to these open gym sessions at St. Joe's in search of more advanced

lessons. In an academy setting, these sessions can also provide a sense of community

which permeates to players a all levels. Exposing academy players to their professional

counterparts can help them absorb team culture, which is a central theme in player

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[346] The Lowe Post – Tom Thibodeau." Interview. Audio blog post. ESPN. ESPN, 12 Mar. 2016. Web. 20
Mar. 2016.

development. One player from Team Manimal, Kenneth Faried's AAU team, noted that "it's awesome to have an NBA player come look at us and give us the time. It makes me want to play so much harder."[347]

As far as scouting players, the network of relationships in the lower stages can also serve as a scouting network for professional teams in that city. Given that tangible benefit, there is more incentive for an organization to involve itself with league youth basketball initiatives in their city. Through connecting with coaches at the middle school level, scouts can more easily identify players who should be invited to try out for an academy team. Since academies cover two different LTAD development stages, Train to Train II and Train to Compete, there should be multiple teams. Two teams for each stage, totaling four teams, with around 10 players each. This is a similar ratio of roster spots to the Bundesliga academies in the same age range, which carry 20-22 players on each squad. Given the small size of each academy, at roughly 40 prospects, the importance of dismissing those who do not meet expectations to open up spots for perspective prospects increases. Aside from the athletic and professional benefits to athletes, academies can provide a social setting in which athletes are not considered exceptional, they are simply another player. This can curtail some of the character development fallout from the special societal status young athletes receive. The likelihood of every one of the 10 players being suited for an academy is extremely low, however, their development should not stop when they leave an academy. Widespread coach licensing and training should still occur at these levels, which require a higher amount of coaching expertise due to the increased intricacy of training methods and

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[347] Doyle, Kevin. "Kenneth Faried Sponsors Team Manimal (AAU)." CollegeBasketballTalk. 26 May 2013. Web. Mar. 2016.

considerations. The Double Pass assessment system should continue in the non-academy pathway, as the vast majority of potential professionals will still be playing outside of academies. Not every player in ESPN's list of the top 50 college basketball recruits succeeds in the NBA, and while better instruction in NBA team academies can improve that conversion rate, the reality remains that late-developing players should be given support while the academies primarily serve early developers.

Top-level stakeholders should keep continue to facilitate optimal development for late-developing players, who rise through the high school and AAU ranks into college basketball, through the Double Pass assessment and endorsement system. Those who follow the collegiate path should be inducted into the league via a draft like the system that currently exists in the NBA, by which the teams pick in order from worst record to best. While that is largely a competitive balance structure, the draft is still the optimal way to select players, despite possibly needing to change the way that players' talents are measured.[348] While one may wish to adjoin the NCAA with the NBA in order to more closely align the NCAA with NBA rule, this would only really help a small percentage of NCAA basketball players. While Syracuse and the New York Knicks could have a mutually beneficial relationship, the rule changes needed in order to optimize that relationship would hurt the majority of schools, both in gameplay and overall league structure. Professional basketball is best served with two domestic intake methods, academies and a draft, similar to the MLS. The small percentage of elite players that develop early rise through the academies, while the late-developers take the collegiate path. The training methods of each pathway will follow the plan laid out by

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[348] Lorena, Martin. " Sports Performance Measurement and Analytics." Proc. of Sloan Sports Analytics, Boston, MA.

LTAD. The vast majority of players will stop pursuing basketball seriously at any and all stages. Maximizing the reach of proper training techniques ensures that kids who stop playing basketball competitively still enjoy the sport, play it recreationally, and maintain their fanhood. Avid fans, those who are most likely to participate in athletics, are the most valuable fans, adding further incentive for top-level stakeholders to expand their reach.

Since professional teams already have a full first team roster and most 18-year-old prospects are not yet ready to join that roster, the majority of academy players will need to feed into a development league before joining the first team. The NBA's D-League, which is expected to expand such that all NBA teams have D-League affiliates, could serve as the perfect buffer between a team's academy and its first team. This would fall in the Learn to Win stage of the LTAD model, ages 18-25+/- for male athletes, which teams would follow in their training. D-League affiliates should have involvement with the senior team, much in the same way that a D-League team would rely on an academy staff to help decide which players are ready to advance. First team personnel cannot closely manage the D-League, so they must have a working relationship with coaches and other staff at that level. As in previous stages, a higher level of coaching certification should be required to coach at the D-League level than in lower stages. D-League teams should carry a full complement of physiotherapists, sport psychologists, team doctors, and other professional personnel. In order to make organization and coordination easier, teams should situate their D-League affiliates within a relatively short drive of their NBA counterpart, three hours' drive at the most. Holding joint practices or training camps between the D-League and the NBA level can

help coaches and players become more familiar with each other. For some players, practicing and playing with both teams in different capacities may be beneficial, like with Justin Anderson or Giannis Antetokounmpo. All players would be required to spend at least a season at the D-League level after they graduate the academy, in order to adjust to life as a professional, which involves many off-court changes which can undermine on-court training and performance, like the increased level of free time, as pointed out by Travis Blakeley. In order to help ease that transition, it can be helpful to create a "college 2.0 type of environment, where…[we sometimes say] you're up at a certain time, record everything that you eat, we're sitting down each afternoon and [reviewing] the day before. [They'll] have team practice with an individual practice right after, then game day shoot around as well."[349] Though the development of a good training culture at lower levels will ease this transition and help players to use free time constructively, teams should still monitor these habits, which is far easier in the D-League, where the lights are far dimmer than in the NBA. As Blakeley points out, D-League teams can more easily implement individual programs "for each guy, to provide them with the platform necessary to find their full potential." A league policy, like how the MLB expands rosters after a certain point in the season, would allow players who are ready for the highest level of play to join NBA teams. The integration of strategy, practice methods, and terminology will ease a mid-season transition. This collaborative adaptation has been key for the Dallas Mavericks and Texas Legends. Blakeley emphasizes this working relationship:

> "Through [that] strengthened communication...we have been able to provide kind of a 'Mavs Lite' or a 'Junior Mavs' experience...where [players] don't feel

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[349] Ibid. Blakeley Thesis Interview.

like they're just being abandoned...for players being assigned [to the D-League], if it feels like a punishment, [they're] going to behave like it's a punishment. If it feels like a chance to get better, and you know that everyone is still right there with you in support of you, then you take better advantage of that opportunity and you grow your game...The last couple years, our D-League coaches have been in training camp with the Mavs. I was a summer league coach with the Mavs for four summers...Just by being around the parent club and by being ingrained in what they do on a day-to-day basis in training camp...we then can communicate in the same language, we can understand the drills that need to be focused on for each individual player...We know what they're already working on, we know to record certain results and send them back...These guys [Justin Anderson, Salah Mejri, and Jeremy Evans] aren't so much coming here and benefitting from weight room sessions with us, they're getting all of that with the Mavs...With us, it's more about...doing the same things that [Director of Player Development] Mike Procopio and [Head Coach] Coach Carlisle does...We want them to feel like it's as symbiotic and as close to the Mavs as it gets, but still have an opportunity for them to play 40 minutes [in a game] and grow their game...It creates a smooth practice and eliminates confusion."[350]

Here, Blakeley describes how useful these arrangements are for not only players, but also D-League coaches, who are left better informed about the needs of the parent NBA team. Of course, this greatly benefits players on assignment from the parent club and those who have not yet made it, both in day-to-day training and potential transitions between levels. These changes decrease the differences between the D-League and NBA levels, keeping players closer to their mental and emotional comfort zones, whether moving from the D-League to the NBA, or vice versa.

Many teams cycle through young, low salary players during the middle and end of the season, when injuries and other factors come into play. While these players are often D-League call-ups, they are also often free agent signings who are unlikely to be with the team past that season or even their 10-day contract. Creating more flexibility for D-League players to shuttle back and forth creates more value for teams, as the end-of-season injury fill-ins become developmental players who have been in their pipeline

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[350] Ibid.

for years. These players would already have knowledge of the system and familiarity with coaches and teammates. Furthermore, the minutes they receive become an investment in their development, rather than giving those minutes to a player who wasn't in the organization the previous month. However, since these players are professional, they cannot be insulated from changes at that level. They are available to be traded or released, though contracts are guaranteed, meaning that if one is released in the middle of their contract, they can still collect the remainder of their salary. This is also the level at which the professional league stops funding other development systems, like collegiate basketball. However, other top-level stakeholders, like apparel companies, should continue to sponsor these teams, as they will continue to produce professional players who may develop later than their D-League peers. Though college basketball teams can develop players very well, there are still subtle inconsistencies with the NBA which undermine that development translating to the professional level. While this is a time in development when an athlete should learn roles, technical and tactical nuances between the NBA and NCAA lessen the helpfulness of certain roles in college basketball, like a big man playing in a zone defense. NBA teams rarely play zone, furthermore, the NBA's defensive three-second rule does not apply in the NCAA, meaning that NCAA defenders can simply stand under the basket waiting for the offense to attack the rim. More broadly, the longer NCAA shot clock results in a much slower game, both in amount of possessions and actual speed of play, which changes the difficulty of decision-making.

In comparing the college and NBA usage rates and decision-making instances (DMI)[351] of 2016 rookies, one can see how these roles change in a broad sense. Of rookies that played 820 minutes or higher, which would average 10 minutes per game if one played every game, the average drop in usage from college to the NBA was just over 5 percent. While a decrease of one in 20 possessions may not seem like a lot, looking at each individual in context can provide more information on how these roles change. While Jahlil Okafor remained central to the 76ers offense, much like he was in college, Duke teammate Justise Winslow's usage dropped 10 percent in a much smaller role with the Miami Heat. Frank Kaminsky, Rashad Vaughn, and Stanley Johnson experienced similar dips. In all, five of the 14 qualifying players saw their usage decrease by at least seven percentage points making the jump to the NBA, which also means that only 14 of the 60 players selected in the 2016 Draft were able to log over 820 minutes at the NBA level. Dissecting changes in DMI can depict how the style of game changes for players, by approximating how many scoring-decisions a player made per contest. While the average change in DMI was a miniscule 1.3 instances per game, this is belied by the vast positive and negative changes for individual players. The biggest increases are those of players from Kentucky, which, like some perennial college contenders, recruit high number of top recruits, each taking up each other's opportunities at decision-making instances. This can help some players work on their weaker skill areas, like Karl-Anthony Towns, who credits his time at Kentucky with developing his inside game and back-to-the-basket offense. For the majority of players, however, decreased playing time and diminished roles lead to a smaller DMI in the

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[351] Calculated by multiplying usage rate by team pace and percentage of minutes played, attempts to approximate the offensive decision-making load of a single player

NBA, despite the faster pace of the game and longer game times, like Rashad Vaughn, Bobby Portis, and Larry Nance Jr. These statistical changes outline how the roles of college athletes, combined with the slightly different NCAA rules, can under prepare them for the NBA.[352]

Because of the uniqueness of each individual player's personal, physical, and emotional development, which creates difficulties in scouting these players, professional basketball leagues are best served using two main methods of domestic player entry. The first being the traditional American pathway of being drafted out of the collegiate ranks and the second being an academy system in which players start training with teams at age 14. Many prospects develop quickly, creating a need for a more structured path into the league from adolescence. However, many players do not, and since there are only 30 NBA teams, should have another structure in which to develop from the approximate ages of 14 to 22. The existence of the United States' legitimate collegiate development path creates this opportunity. The established collegiate basketball structure, provided the aforementioned adjustments are made at the youth and high school levels, can certainly serve that purpose efficiently. Building this parallel infrastructure can create a situation in which, if a player has enough talent and works properly, they will be able to play professionally, regardless of their pathway. Most likely, players that develop quickly in adolescence will train with academies in preparation for professional careers. However, the NCAA can produce quality players who take more time to develop during high school, so those players should also be supported as they continue to grow. To that point, it is very likely that players drafted

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[352] Detailed table available in Appendix G

out of college will require some D-League experience before joining the first team, so a

D-League roster would likely consist of drafted players and former academy players.

Just like the MLB and MLS, the NBA, and other professional leagues to which this

applies, should create multiple avenues to professional success for prospects who

develop differently. This can be most effectively achieved through working within or

above the current development structure.[353]


**Commentary and Conclusion**

Though the current youth system's problems are well-documented, there has

been limited change. USA Basketball has started an initiative, which, along with the

NBA's Jr. NBA initiative, has shown that top-level stakeholders are also aware of these

issues. Despite the apparent importance of multiple stakeholders adhering to the concept

of the 'amateur athlete,' the NBA distinctly and all American aspiring professional

players can benefit or suffer from the effectiveness of the amateur sports model in the

United States. For players, these organizations exist independently and in a parallel

manner. While there are problems associated with this arrangement, the whole of

American youth sports also suffers from structural issues which hurt the overall quality

and quantity of the professional players who rise through it. USA Basketball's three-day

camps are not enough of a constant force to make a discernible impact on America's

youth players. The same applies to USAB coaching clinics and Jr. NBA camps.

However, these programs are in their respective infancies. While the Jr. NBA's website

includes helpful instruction on proper coaching techniques, it is not likely that this will

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[353] Diagram of New and Current Development Systems in Appendix H

overcome the lack of coaching requirements across the country. Nevertheless, these initiatives represent action on the part of USA Basketball and the NBA to take control of youth development, through using facilities for free sessions and information sharing to promote healthy participation and skill development.

However, when it comes to reinforcing non-basketball development in youth athletes, the issues raised in the cases of DC Assault, Kevin Ross, Prime Prep, the Inland Stars, and the San Antonio Spurs highlight this fact. The cautionary tales of DC Assault and the Inland Stars go a long way in explaining the flaws of the AAU model. On one hand sits a team funded and operated by a drug lord subsidized by Under Armour; on the other is a team funded by a coach whose main goal is securing a sponsorship with Adidas. The primary goals of each club were to promote the team to agents, apparel companies, scouts, and college coaches, not to develop the skills of their players. Additionally, running an AAU team, or any such organization with similar reach, requires a large monetary resource pool. While most do not fill this pool with drug money, it is commonplace for an apparel company to provide the bulk of an AAU team's sponsorship. While this allows many players from low-income families to participate for free, it creates a dynamic of monetary debt between player and coach. In a very real sense, coaches are 'selling' players to shoe companies, as the brand loyalty which starts in adolescence carries real weight. Sponsoring AAU teams and amateur tournaments is a far cheaper way for companies to build that loyalty up with prospects who might make it big later in their careers. It is well-known that athletes who play at Oregon endorse Nike as professionals, just like those from Auburn endorse Under Armour. The cleats of Marcus Mariota and Cam Newton tell that story. Furthermore,

shoe contracts are valuable assets for NBA players as opportunities for further income, exposure, and branding. Having one's own shoe is somewhat of a status symbol for NBA players, as only the most marketable stars with the best relationships receive them. So while building these relationships early may not be the worst thing for players' futures, it is how these relationships form, the path a team takes to get there, and the type of expectations these relationships create, that harm a player's overall development and his ability reach that future. In the case of Demetrius Walker, his stardom only served to inflate his opinion of himself while concurrently creating a crippling fear of failure. A 14-year-old start worrying about a shoe contract is going to miss some more important priorities, like competing in school or further developing skills. Here is where the 'glamour' of the AAU, as Coach Turner said, becomes a main drawback, because the AAU has no other incentive to develop a child's personal or scholastic skills. Without developing those substantive tools, the glamour of the AAU, instilled by shoe contracts and internet highlight mixtapes, can be corrosive. The introduction of apparel companies jockeying for the right to found their brand loyalty simply detracts from the overall priority of player development, at least in the current manner in which that takes place.

Unintended consequences, like sponsorship dollars hurting player development, are a theme that pervades youth sports in America. But for athletes all over America, all too often, these unintended consequences are inadequate basketball training (in multiple ways) and inadequate schooling. The AAU has very little incentive to ensure the academic or personal development of players. For instance, after all of these histrionics involving DC Assault, no one ever bothered to assess Curtis Malone's abilities as a

basketball coach and teacher. As a result of his turbulent upbringing through basketball, Michael Beasley's career has seemingly mirrored the rise of DC Assault and Montrose Christian, as a shooting star that burns bright but fades quickly. This brings to mind Judge Huvelle's comments at Malone's hearing: "the irony is the very community [he] sought to help, [he] hurt."[354] That mordant criticism falls not only on to the shoulders of Curtis Malone, but more broadly on the "essentially unregulated youth basketball world."[355] These problems are passed on through the players to the NCAA, which is not immune from these types of infractions. The most telling part of the Kevin Ross story can be found in the way Ross speaks about his son, Kevin Shorter, who played for Ohio State, and himself: "Kevin can read. Kevin can play basketball. He ain't going to college being half a person like I was. He's in college. He's a full person because he can do both."[356] A man who played Division I NCAA basketball, something to which millions aspire, thought of himself as less than a full person because he never had an education. He certainly should not feel this way. Independent of basketball, one cannot lead successful or fulfilling life if they feel like "half  a person."[357] Considering basketball, the marriage of high-level basketball and scholastic institutions should enrich the academic experience of the athletes, not subdue it. This too, is an instance in which individual development was set aside for winning. Creighton could have redshirted Ross and educated him one year, he did, after all, learn how to read at a college level in nine months. However, they put him on the court as soon as possible, ignoring his obvious need for academic assistance.

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[354] Ibid. Giannotto, Mark.
[355] Ibid.
[356] Ibid. ESPN Page 2 – Outside the Lines: Unable to Read
[357] Ibid.

In finding the roots of these issues, we can trace back to the mission statement of

Arkansas Wings Elite: "To inspire young men and women via the game of basketball to

be winners both and off the court, empowering them to obtain their dreams of attending

college."[358] First, one can see that the mission is not to develop good people and good

players, rather to inspire people to become "winners." While the term, 'winner' can be

broad, it presents a clear dichotomy to each member of the Wings Elite that winning is

success and losing is failure. In a sport fraught with losses, this frame of mind is

extremely counterproductive, especially to young athletes. This mission statement also

stands as a great example of the oddly arranged incentives in place in youth basketball.

For the average American, being accepted to college is achieved through academic

progress. Here, Ron Crawford sells the academic goal of attending college through

athletic achievement, which presents a clear mismatch of process and the goal at the end

of the process. If one arrives in college solely through athletic achievement, they may

not necessarily be academically prepared to attend college. This deduction has proved

true for far too many athletes, like Kevin Ross and Derrick Rose. The fact that

Crawford has served in many capacities and on many committees for the AAU serves to

signal where the expertise of the AAU sits: in the arena of business, not basketball or

scholastics. There are AAU coaches all over the basketball as business spectrum, from

coach and teacher Steve Turner, to businessman Ron Crawford. But at the end of the

day, the incentives in place will always favor clubs that win championships at all levels

to gain the competitive edge of an apparel company's backing. Nothing is wrong with

that phenomena per se, but when the school fails to teach and the athletics fail to

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[358] Ibid. Mission Statement - Wings Elite

develop, what are athletes really getting?

Because of the lucrative business opportunities that have arisen in the arena of youth basketball, closely related to apparel companies attempting to recruit future endorsers, there are as many businesspeople running AAU and high school programs as basketball coaches and educators.[359] While players in these systems have to remain amateur to play in the NCAA, the organizations which are charged with developing these players cannot be. In awarding the most funding to the programs which win most at the youth level, the American youth development system has unintentionally incentivized away from development. To reiterate, unintended consequences are the prevailing theme of American youth sports, as funding from businesspeople has simply landed in the hands of a coaching class which is comprised of coaches, marketers, and other businesspeople. Unfortunately, each of these groups, as a whole, are undereducated in both the science and art of coaching. Furthermore, there is no requirement or incentive for one to improve these skills. Some wonder where all of these young athletes end up meeting these apparel reps, agents, and boosters, while they watch the Under Armour Basketball's Elite 24 live from Brooklyn or the Nike EYBL Select Teams battle it out in the Bahamas. Given the current nature of professional basketball, players should meet the people with whom they will need to do business in the future, but in the right context. These events are such that nothing official can happen, which is exactly their detriment. Unofficial events and agreements are typically unregulated, which is far less than optimal when hinging on the decision-making ability and total awareness level of teenagers. As one versed in the United States youth

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[359] Ibid. Bev Smith Thesis Interview

basketball scene might expect, a 2000-word ESPN article outlining how Nike's EYBL program would "revolutionize the travel basketball circuit" mentions neither the word 'practice' nor the word 'training.'[360] Certainly that type of revolution has already taken place, spurred by Michael Jordan. After all, it was Jordan's junior varsity coach that cut him from the team and Nike that made him a star, so why would a young player not follow that path? If an organization has a flashy name involved, like Deion Sanders, and the newest athletic attire, it will attract ambitious youth athletes, who try to fashion themselves like the pros they want to become.

As a whole, youth sports sponsorship has emulated professional business sponsorship, in which teams cater to the needs of businesses. However, in order to provide good youth development through youth sports requires the needs of the athletes to be central. Due to the comparative budget of youth team outfits, there is less room to accomplish both ends. Though sponsorship dollars can create and exacerbate issues with youth basketball, these dollars are not the root of the problem. The same goes for players like Michael Jordan, or even, as some have suggested, Stephen Curry, and the impact of their dominance. The main issue is that while basketball attracts a huge amount of sponsorship dollars, at the lower levels, these dollars are not directed with the right basketball structure because USAB and NBA have no issues competing with the rest of the world. In soccer, the MLS has partnered with sponsors like Nike and adidas to build better youth development infrastructure. However, American basketball market is far more developed than American soccer market, decreasing the incentive of apparel companies to invest in proper youth development. Given that the NBA and USA

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[360] Lawlor, Christopher. "EYBL May Change Travel Basketball." ESPN. ESPN Internet Ventures, 8 Apr. 2010. Web. 10 May 2016.

Basketball will remain on top of the global basketball scene for the immediate future, there exists little short-term incentive for these top-level stakeholders to address these problems. However, this was once the case with England in multiple sports. Once kings of cricket, rugby, and soccer, the English now find themselves lucky to compete at the international stage of any of these sports. Given the incredibly small fraction of humans genetically suited to play professional basketball, USA Basketball should try to maximize the talent of every single one of those players.

As has been shown in the Bundesliga academy system and Canada's LTAD, the best results for players can be achieved when top-level stakeholders tackle these problems together. After all, the interests of national associations, professional leagues, and apparel companies align with respect to player development. Dallas Mavericks owner Mark Cuban expressed that, "[he has] been pushing for it. But because of the [amateurism] rules, it's up to the NBA to make happen."[361] However, outside of existing amateurism rules, which make a true academy system difficult to construct, there are other obstacles. The biggest of which is that the NBA does not have a direct incentive to improve its own development pipeline. The NBA and its member teams do not compete for the world's top players, so domestic player development is not as important in American basketball as in German or American soccer. The likelihood of the costs of foreign players soaring too high for NBA teams is low, especially given that the majority of players would prefer to play at the highest level. The establishment of international leagues as legitimate competitors to the NBA is decades away and would likely require European teams to increase their scouting reach into Africa and Asia.

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[361] Cuban, Mark. "Researching NBA Player Development." Message to Connor Williamson Apr. 2016. E-mail.

However, should the NBA get ahead of such developments, it could stand to grow its revenue through transfer fees for American players from foreign clubs. Furthermore, considering the NBA's lukewarm success rate, yet perpetual flirtation with expansion, controlling and codifying the its development pipeline can solidify in the league's scalability. Even without considering expansion, through improving its talent pipeline, the league can improve its on-court product. This pleases fans and creates revenue. Despite these huge incentives, Cuban further explained that the neither the owners nor the NBA Players Association have prioritized domestic player development enough for the issue to be discussed during upcoming negotiations over the league's collective bargaining agreement during the summer of 2016.[362] Since the Players Association only represents current, and not future, players, it has little incentive to take a stance on the issue. This dynamic is evident in the union's approval of rookie-scale salary slots, which severely limit the earning potential of rookie players. However, NBA Commissioner Adam Silver remains hopeful that the league will raise the minimum salaries in the D-League, making it a more attractive option for American players not ready for the NBA.[363] Moreover, the amount of players that give back to their communities remains high, with stars and non-stars starting foundations, AAU teams, and basketball camps.[364]

Given the obvious desire of players to give back to the youth basketball community, and their close relationship with apparel companies, a realistic solution may be found through a joint effort on the part of players and their sponsors. Nike,

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[362] Ibid.
[363] Ibid. Lowe Post – Adam Silver.
[364] Detailed figures of average European youth soccer academy cost available in Appendix C

adidas, and Under Armour already sponsor major youth tournaments across the country, as well as Jr. NBA initiatives. Nike's long-standing relationship with USA Basketball, as well as its vast knowledge about athlete development research, create a natural youth development partnership. Here, one can see that while the NBA needs to be involved in an ideal structure, it is not necessary to make improvements to the youth structure. Individual NBA players and apparel companies, since they already fund a great deal of youth basketball, can assist USA Basketball in enforcing coaching licensing requirements and proper development techniques. Here, these top-level stakeholders can leverage the lack of a top-down youth structure, by improving certain fragments of the system which are already in place, like the AAU and YMCA. It is well known that young athletes, when they are highly talented, will receive special attention. In the words of Bev Smith, "athletics sometimes can be an arrogant field because you get this free pass because you can throw a football or shoot a basketball...You're going to be a good person a lot longer than you're going to be a good basketball player."[365] However, there needs to be a structure in place to provide these athletes with the proper kind of special attention consistently, which can help the NBA through better players, a more entertaining on-court product, and a more avid fan base. An improved structure can also help to cement the place of United States basketball at the top of the ranks, and at the top of the global player market, which may serve as a potential revenue stream in the future.

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[365] Ibid. Bev Smith Thesis Interview.

# Appendices
## Appendix A: Win Shares Produced by Rookie Scale Contracts

Data from Basketball Reference

| Player | WS/YR | 2015Av$ | ActualAv$ | 1Y Salary | 2Y Salary | 3Y Option | 4Y Option |
|---|---|---|---|---|---|---|---|
| Karl-Anthony Towns | 4.4 | 8.3 | 5,358,341 | 4,753,000 | 4,966,800 | 5,180,700 | 6,532,863 |
| D'Angelo Russell | -0.1 | -0.2 | 4,795,412 | 4,252,600 | 4,444,000 | 4,635,300 | 5,849,749 |
| Jahlil Okafor | 1.2 | 2.3 | 4,308,432 | 3,818,900 | 3,990,700 | 4,162,600 | 5,261,526 |
| Kristaps Porzingis | 3.2 | 6.1 | 3,885,436 | 3,443,100 | 3,598,100 | 3,753,000 | 4,747,545 |
| Mario Hezonja | 0.4 | 0.8 | 3,520,182 | 3,117,900 | 3,258,200 | 3,398,600 | 4,306,026 |
| Willie Cauley-Stein | 1.9 | 3.6 | 3,198,016 | 2,831,900 | 2,959,300 | 3,086,800 | 3,914,062 |
| Emmanuel Mudiay | -2.2 | -4.2 | 2,920,833 | 2,585,200 | 2,701,500 | 2,817,900 | 3,578,733 |
| Stanley Johnson | 0.9 | 1.7 | 2,677,092 | 2,368,300 | 2,474,900 | 2,581,500 | 3,283,668 |
| Frank Kaminsky | 1.6 | 3.0 | 2,462,076 | 2,177,100 | 2,275,000 | 2,373,000 | 3,023,202 |
| Justise Winslow | 0.9 | 1.7 | 2,339,401 | 2,068,100 | 2,161,200 | 2,254,200 | 2,874,105 |
| Myles Turner | 1.5 | 2.8 | 2,250,376 | 1,964,800 | 2,053,200 | 2,141,600 | 2,841,903 |
| Trey Lyles | 0.8 | 1.5 | 2,163,760 | 1,866,500 | 1,950,500 | 2,034,500 | 2,803,541 |
| Devin Booker | 1.3 | 2.5 | 2,080,243 | 1,773,200 | 1,853,000 | 1,932,800 | 2,761,971 |
| Cameron Payne | 1.3 | 2.5 | 2,000,153 | 1,684,600 | 1,760,400 | 1,836,200 | 2,719,412 |
| Kelly Oubre | 0.4 | 0.8 | 1,922,615 | 1,600,200 | 1,672,200 | 1,744,200 | 2,673,859 |
| Terry Rozier | -0.3 | -0.6 | 1,827,023 | 1,520,300 | 1,588,700 | 1,657,100 | 2,541,991 |
| Rashad Vaughn | -0.4 | -0.8 | 1,736,393 | 1,444,200 | 1,509,200 | 1,574,200 | 2,417,971 |
| Sam Dekker | 0.0 | 0.0 | 1,650,345 | 1,372,000 | 1,433,800 | 1,495,500 | 2,300,079 |
| Jerian Grant | 0.0 | 0.0 | 1,576,782 | 1,310,300 | 1,369,200 | 1,428,200 | 2,199,428 |
| Delon Wright | -0.1 | -0.2 | 1,514,321 | 1,257,800 | 1,314,400 | 1,371,000 | 2,114,082 |
| Justin Anderson | 0.0 | 0.0 | 1,470,552 | 1,207,500 | 1,261,800 | 1,316,200 | 2,096,707 |
| Bobby Portis | 0.4 | 0.8 | 1,428,231 | 1,159,300 | 1,211,400 | 1,263,600 | 2,078,622 |
| Rondae Hollis-Jefferson | 0.8 | 1.5 | 1,386,908 | 1,112,900 | 1,163,000 | 1,213,100 | 2,058,631 |
| Tyus Jones | -0.1 | -0.2 | 1,346,503 | 1,068,400 | 1,116,400 | 1,164,500 | 2,036,711 |
| Jarell Martin | -0.1 | -0.2 | 1,307,255 | 1,025,700 | 1,071,800 | 1,118,000 | 2,013,518 |

| | | | | | | |
|---|---|---|---|---|---|---|
| Nikola Milutinov | | 0.0 | 1,264,416 | 991,600 | 1,036,300 | 1,080,900 | 1,948,863 |
| Larry Nance Jr. | 1.4 | 2.6 | 1,228,190 | 963,000 | 1,006,400 | 1,049,700 | 1,893,659 |
| R.J. Hunter | 0.2 | 0.4 | 1,220,964 | 957,200 | 1,000,200 | 1,043,300 | 1,883,157 |
| Chris McCullough | | 0.0 | 1,212,060 | 950,200 | 992,900 | 1,035,700 | 1,869,439 |
| Kevon Looney | | 0.0 | 1,203,275 | 943,300 | 985,700 | 1,028,200 | 1,855,901 |
| Cedi Osman | | | 500,000 | | | | |
| Montrezl Harrell | 0.6 | 1.1 | 500,000 | | | | |
| Jordan Mickey | 0.1 | 0.2 | 500,000 | | | | |
| Anthony Brown | -0.3 | -0.6 | 500,000 | | | | |
| Willy Hernangomez | | | 500,000 | | | | |
| Rakeem Christmas | | | 500,000 | | | | |
| Richaun Holmes | 1.4 | 2.6 | 500,000 | | | | |
| Darrun Hilliard | 0.0 | 0.0 | 500,000 | | | | |
| Juan Pablo Vaulet | | | 500,000 | | | | |
| Josh Richardson | -0.1 | -0.2 | 500,000 | | | | |
| Pat Connaughton | -0.2 | -0.4 | 500,000 | | | | |
| Olivier Hanlan | | | 500,000 | | | | |
| Joseph Young | 0.2 | 0.4 | 500,000 | | | | |
| Andrew Harrison | | | 500,000 | | | | |
| Marcus Thornton | | | 500,000 | | | | |
| Norman Powell | -0.1 | -0.2 | 500,000 | | | | |
| Arturas Gudaitis | | | 500,000 | | | | |
| Dakari Johnson | | | 500,000 | | | | |
| Aaron White | | | 500,000 | | | | |
| Marcus Eriksson | | | 500,000 | | | | |
| Tyler Harvey | | | 500,000 | | | | |
| Satnam Singh | | | 500,000 | | | | |
| Sir'Dominic Pointer | | | 500,000 | | | | |
| Dani Diez | | | 500,000 | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Cady Lalanne | | | 500,000 | | | | |
| Branden Dawson | 0.0 | 0.0 | 500,000 | | | | |
| Nikola Radicevic | | | 500,000 | | | | |
| J.P. Tokoto | | | 500,000 | | | | |
| Dimitrios Agravanis | | | 500,000 | | | | |
| Luka Mitrovic | | | 500,000 | | | | |
| Andrew Wiggins | 2.2 | 4.2 | 5,177,134 | 4592200 | 4798900 | 5005500 | 6,311,936 |
| Jabari Parker | 1.6 | 2.9 | 4,633,273 | 4108800 | 4293700 | 4478600 | 5,651,993 |
| Joel Embiid | | 0.0 | 4,162,714 | 3689700 | 3855800 | 4021800 | 5,083,555 |
| Aaron Gordon | 1.9 | 3.5 | 3,754,054 | 3326700 | 3476400 | 3626100 | 4,587,017 |
| Dante Exum | -0.1 | -0.2 | 3,401,130 | 3012500 | 3148100 | 3283600 | 4,160,321 |
| Marcus Smart | 2.1 | 4.0 | 3,089,846 | 2736100 | 2859200 | 2982400 | 3,781,683 |
| Julius Randle | 0.2 | 0.3 | 2,822,076 | 2497800 | 2610200 | 2722600 | 3,457,702 |
| Nik Stauskas | 0.2 | 0.4 | 2,586,556 | 2288200 | 2391200 | 2494200 | 3,172,622 |
| Noah Vonleh | 0.8 | 1.5 | 2,378,857 | 2103500 | 2198100 | 2292800 | 2,921,027 |
| Elfrid Payton | 1.8 | 3.3 | 2,260,313 | 1998200 | 2088100 | 2178000 | 2,776,950 |
| Doug McDermott | 0.6 | 1.1 | 2,174,257 | 1898300 | 1983700 | 2069200 | 2,745,828 |
| Dario Saric | | 0.0 | 2,090,609 | 1803400 | 1884600 | 1965700 | 2,708,735 |
| Zach LaVine | 0.3 | 0.5 | 2,009,854 | 1713200 | 1790300 | 1867400 | 2,668,515 |
| T.J. Warren | 1.7 | 3.1 | 1,932,511 | 1627600 | 1700900 | 1774100 | 2,627,442 |
| Adreian Payne | -0.3 | -0.5 | 1,857,603 | 1546100 | 1615700 | 1685200 | 2,583,412 |
| Jusuf Nurkic | 0.8 | 1.4 | 1,765,272 | 1468900 | 1535000 | 1601100 | 2,456,087 |
| James Young | 0.3 | 0.5 | 1,677,714 | 1395400 | 1458200 | 1521000 | 2,336,256 |
| Tyler Ennis | -0.2 | -0.4 | 1,594,514 | 1325600 | 1385300 | 1444900 | 2,222,256 |
| Gary Harris | 0.5 | 0.9 | 1,523,462 | 1266000 | 1322900 | 1379900 | 2,125,046 |
| Bruno Caboclo | -0.1 | -0.2 | 1,463,172 | 1215300 | 1270000 | 1324700 | 2,042,687 |
| Mitch McGary | 0.6 | 1.1 | 1,420,855 | 1166700 | 1219200 | 1271700 | 2,025,818 |
| Jordan Adams | 0.2 | 0.4 | 1,379,970 | 1120100 | 1170500 | 1220900 | 2,008,381 |
| Rodney Hood | 2.7 | 5.0 | 1,340,038 | 1075300 | 1123700 | 1172100 | 1,989,054 |

| | | | | | | |
|---|---|---|---|---|---|---|
| Shabazz Napier | 0.4 | 0.7 | 1,300,950 | 1032200 | 1078700 | 1125100 | 1,967,800 |
| Clint Capela | 1.4 | 2.6 | 1,263,060 | 991000 | 1035600 | 1080200 | 1,945,440 |
| P.J. Hairston | 0.6 | 1.1 | 1,221,618 | 958100 | 1001200 | 1044300 | 1,882,873 |
| Bogdan Bogdanovic | | 0.0 | 1,186,654 | 930500 | 972300 | 1014200 | 1,829,617 |
| C.J. Wilcox | -0.1 | -0.1 | 1,179,660 | 924800 | 966400 | 1008000 | 1,819,440 |
| Josh Huestis | | 0.0 | 1,171,091 | 918000 | 959400 | 1000700 | 1,806,264 |
| Kyle Anderson | 1.0 | 1.9 | 1,162,572 | 911400 | 952400 | 993400 | 1,793,087 |
| Damien Inglis | -0.1 | -0.2 | 500,000 | | | | |
| K.J. McDaniels | 0.3 | 0.5 | 500,000 | | | | |
| Joe Harris | 0.1 | 0.2 | 500,000 | | | | |
| Cleanthony Early | -0.2 | -0.4 | 500,000 | | | | |
| Jarnell Stokes | 0.3 | 0.5 | 500,000 | | | | |
| Johnny O'Bryant III | -0.1 | -0.2 | 500,000 | | | | |
| DeAndre Daniels | | | 500,000 | | | | |
| Spencer Dinwiddie | 0.1 | 0.2 | 500,000 | | | | |
| Jerami Grant | 1.1 | 2.1 | 500,000 | | | | |
| Glenn Robinson III | 0.4 | 0.7 | 500,000 | | | | |
| Nikola Jokic | 3.3 | 6.2 | 500,000 | | | | |
| Nick Johnson | -0.1 | -0.2 | 500,000 | | | | |
| Walter Tavares | 0.1 | 0.2 | 500,000 | | | | |
| Markel Brown | 0.2 | 0.3 | 500,000 | | | | |
| Dwight Powell | 1.5 | 2.8 | 500,000 | | | | |
| Jordan Clarkson | 1.7 | 3.2 | 500,000 | | | | |
| Russ Smith | -0.1 | -0.2 | 500,000 | | | | |
| Lamar Patterson | 0.2 | 0.4 | 500,000 | | | | |
| Cameron Bairstow | -0.1 | -0.1 | 500,000 | | | | |
| Alec Brown | | | 500,000 | | | | |
| Thanasis Antetokounmpo | | | 500,000 | | | | |
| Vasilije Micic | | | 500,000 | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Alessandro Gentile | | | 500,000 | | | | |
| Nemanja Dangubic | | | 500,000 | | | | |
| Semaj Christon | | | 500,000 | | | | |
| Roy Devyn Marble | -0.1 | -0.2 | 500,000 | | | | |
| Louis Labeyrie | | | 500,000 | | | | |
| Jordan McRae | | | 500,000 | | | | |
| Xavier Thames | | | 500,000 | | | | |
| Cory Jefferson | 0.5 | 0.9 | 500,000 | | | | |
| Anthony Bennett | 0.0 | -0.1 | 5,002,094 | 4,436,900 | 4,636,600 | 4,836,300 | 6,098,574 |
| Victor Oladipo | 2.3 | 4.3 | 4,476,550 | 3,969,800 | 4,148,500 | 4,327,100 | 5,460,800 |
| Otto Porter | 1.8 | 3.3 | 4,021,963 | 3,565,000 | 3,725,400 | 3,885,800 | 4,911,651 |
| Cody Zeller | 3.1 | 5.9 | 3,627,107 | 3,214,200 | 3,358,800 | 3,503,500 | 4,431,928 |
| Alex Len | 1.6 | 3.0 | 3,286,121 | 2,910,600 | 3,041,600 | 3,172,600 | 4,019,684 |
| Nerlens Noel | 2.9 | 5.5 | 2,985,361 | 2,643,600 | 2,762,600 | 2,881,500 | 3,653,742 |
| Ben McLemore | 1.3 | 2.4 | 2,726,609 | 2,413,300 | 2,521,900 | 2,630,500 | 3,340,735 |
| Kentavious Caldwell-Pope | 2.8 | 5.4 | 2,499,091 | 2,210,900 | 2,310,400 | 2,409,800 | 3,065,266 |
| Trey Burke | 1.8 | 3.3 | 2,298,366 | 2,032,300 | 2,123,800 | 2,215,200 | 2,822,165 |
| C.J. McCollum | 1.8 | 3.5 | 2,183,846 | 1,930,600 | 2,017,500 | 2,104,300 | 2,682,983 |
| Michael Carter-Williams | 1.0 | 1.9 | 2,100,735 | 1,834,100 | 1,916,700 | 1,999,200 | 2,652,938 |
| Steven Adams | 3.5 | 6.7 | 2,019,874 | 1,742,400 | 1,820,800 | 1,899,200 | 2,617,098 |
| Kelly Olynyk | 3.1 | 5.9 | 1,941,936 | 1,655,300 | 1,729,800 | 1,804,300 | 2,578,345 |
| Shabazz Muhammad | 1.3 | 2.4 | 1,867,146 | 1,572,600 | 1,643,300 | 1,714,100 | 2,538,582 |
| Giannis Antetokounmpo | 3.5 | 6.6 | 1,794,821 | 1,493,800 | 1,561,000 | 1,628,300 | 2,496,184 |
| Lucas Nogueira | 0.3 | 0.5 | 1,705,536 | 1,419,200 | 1,483,100 | 1,546,900 | 2,372,945 |
| Dennis Schroder | 1.1 | 2.0 | 1,620,938 | 1,348,200 | 1,408,900 | 1,469,500 | 2,257,152 |
| Shane Larkin | 0.9 | 1.7 | 1,540,625 | 1,280,800 | 1,338,400 | 1,396,100 | 2,147,202 |
| Sergey Karasev | 0.2 | 0.4 | 1,471,932 | 1,223,200 | 1,278,200 | 1,333,200 | 2,053,128 |
| Tony Snell | 1.5 | 2.9 | 1,413,676 | 1,174,200 | 1,227,000 | 1,279,900 | 1,973,606 |
| Gorgui Dieng | 3.2 | 6.0 | 1,372,780 | 1,127,200 | 1,177,900 | 1,228,700 | 1,957,319 |

| | | | | | | |
|---|---|---|---|---|---|---|
| Mason Plumlee | 4.2 | 8.0 | 1,333,286 | 1,082,200 | 1,130,900 | 1,179,600 | 1,940,442 |
| Solomon Hill | 1.5 | 2.8 | 1,294,671 | 1,038,900 | 1,085,700 | 1,132,400 | 1,921,683 |
| Tim Hardaway | 1.4 | 2.6 | 1,256,984 | 997,300 | 1,042,200 | 1,087,100 | 1,901,338 |
| Reggie Bullock | 0.0 | 0.1 | 1,220,376 | 957,500 | 1,000,600 | 1,043,700 | 1,879,704 |
| Andre Roberson | 1.7 | 3.2 | 1,180,332 | 925,700 | 967,400 | 1,009,000 | 1,819,227 |
| Rudy Gobert | 4.1 | 7.8 | 1,146,535 | 899,000 | 939,500 | 979,900 | 1,767,740 |
| Livio Jean-Charles | | 0.0 | 1,139,747 | 893,500 | 933,700 | 973,900 | 1,757,890 |
| Archie Goodwin | 0.3 | 0.5 | 1,131,444 | 887,000 | 926,900 | 966,800 | 1,745,074 |
| Nemanja Nedovic | -0.4 | -0.8 | 1,123,260 | 880,600 | 920,200 | 959,800 | 1,732,439 |
| Allen Crabbe | 1.3 | 2.4 | 500,000 | | | | |
| Alex Abrines | | | 500,000 | | | | |
| Carrick Felix | 0.0 | 0.0 | 500,000 | | | | |
| Isaiah Canaan | 0.8 | 1.5 | 500,000 | | | | |
| Glen Rice | -0.1 | -0.2 | 500,000 | | | | |
| Ray McCallum | 0.8 | 1.5 | 500,000 | | | | |
| Tony Mitchell | 0.2 | 0.4 | 500,000 | | | | |
| Nate Wolters | 0.5 | 0.9 | 500,000 | | | | |
| Jeff Withey | 1.5 | 2.9 | 500,000 | | | | |
| Grant Jerrett | -0.1 | -0.2 | 500,000 | | | | |
| Jamaal Franklin | 0.0 | 0.0 | 500,000 | | | | |
| Pierre Jackson | | | 500,000 | | | | |
| Ricky Ledo | -0.3 | -0.6 | 500,000 | | | | |
| Mike Muscala | 0.9 | 1.6 | 500,000 | | | | |
| Marko Todorovic | | | 500,000 | | | | |
| Erick Green | 0.0 | 0.0 | 500,000 | | | | |
| Raul Neto | 0.6 | 1.1 | 500,000 | | | | |
| Ryan Kelly | 1.1 | 2.0 | 500,000 | | | | |
| Erik Murphy | -0.1 | -0.2 | 500,000 | | | | |
| James Ennis | 1.0 | 1.9 | 500,000 | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Romero Osby | | | 500,000 | | | | |
| Lorenzo Brown | -0.1 | -0.1 | 500,000 | | | | |
| Colton Iverson | | | 500,000 | | | | |
| Arsalan Kazemi | | | 500,000 | | | | |
| Joffrey Lauvergne | 0.7 | 1.2 | 500,000 | | | | |
| Peyton Siva | -0.2 | -0.4 | 500,000 | | | | |
| Alex Oriakhi | | | 500,000 | | | | |
| Deshaun Thomas | | | 500,000 | | | | |
| Bojan Dubljevic | | | 500,000 | | | | |
| Janis Timma | | | 500,000 | | | | |
| Anthony Davis | 8.8 | 16.6 | 4,832,919 | 4,286,900 | 4,479,800 | 4,672,700 | 5,892,275 |
| Michael Kidd-Gilchrist | 3.0 | 5.7 | 4,325,192 | 3,835,600 | 4,008,200 | 4,180,800 | 5,276,170 |
| Bradley Beal | 2.9 | 5.4 | 3,885,940 | 3,444,400 | 3,599,400 | 3,754,400 | 4,745,562 |
| Dion Waiters | 1.2 | 2.3 | 3,504,431 | 3,105,500 | 3,245,200 | 3,385,000 | 4,282,025 |
| Thomas Robinson | 0.9 | 1.7 | 3,174,984 | 2,812,200 | 2,938,700 | 3,065,300 | 3,883,735 |
| Damian Lillard | 7.7 | 14.5 | 2,884,410 | 2,554,200 | 2,669,100 | 2,784,100 | 3,530,239 |
| Harrison Barnes | 3.8 | 7.2 | 2,634,433 | 2,331,700 | 2,436,600 | 2,541,600 | 3,227,832 |
| Terrence Ross | 2.4 | 4.5 | 2,414,549 | 2,136,100 | 2,232,200 | 2,328,300 | 2,961,598 |
| Andre Drummond | 6.7 | 12.7 | 2,220,661 | 1,963,600 | 2,052,000 | 2,140,300 | 2,726,742 |
| Austin Rivers | 0.4 | 0.8 | 2,110,008 | 1,865,300 | 1,949,200 | 2,033,200 | 2,592,330 |
| Meyers Leonard | 1.8 | 3.5 | 2,029,683 | 1,772,100 | 1,851,800 | 1,931,600 | 2,563,233 |
| Jeremy Lamb | 1.8 | 3.4 | 1,951,608 | 1,683,500 | 1,759,300 | 1,835,000 | 2,528,630 |
| Kendall Marshall | 0.3 | 0.5 | 1,876,208 | 1,599,300 | 1,671,300 | 1,743,200 | 2,491,033 |
| John Henson | 2.6 | 4.9 | 1,803,996 | 1,519,400 | 1,587,800 | 1,656,100 | 2,452,684 |
| Maurice Harkless | 1.6 | 3.0 | 1,734,104 | 1,443,300 | 1,508,200 | 1,573,200 | 2,411,716 |
| Royce White | 0.0 | 0.0 | 1,647,854 | 1,371,200 | 1,432,900 | 1,494,600 | 2,292,716 |
| Tyler Zeller | 2.9 | 5.4 | 1,566,103 | 1,302,600 | 1,361,200 | 1,419,800 | 2,180,813 |
| Terrence Jones | 3.1 | 5.9 | 1,488,552 | 1,237,500 | 1,293,200 | 1,348,900 | 2,074,608 |
| Andrew Nicholson | 0.8 | 1.5 | 1,422,207 | 1,181,800 | 1,235,000 | 1,288,200 | 1,983,828 |

| | | | | | | |
|---|---|---|---|---|---|---|
| Evan Fournier | 1.9 | 3.5 | 1,365,884 | 1,134,500 | 1,185,600 | 1,236,600 | 1,906,837 |
| Jared Sullinger | 3.4 | 6.3 | 1,326,338 | 1,089,100 | 1,138,100 | 1,187,100 | 1,891,050 |
| Fab Melo | 0.0 | 0.0 | 1,288,202 | 1,045,600 | 1,092,700 | 1,139,700 | 1,874,807 |
| John Jenkins | 0.6 | 1.1 | 1,250,897 | 1,003,800 | 1,049,000 | 1,094,100 | 1,856,688 |
| Jared Cunningham | 0.1 | 0.2 | 1,214,469 | 963,600 | 1,007,000 | 1,050,300 | 1,836,975 |
| Tony Wroten | -0.3 | -0.6 | 1,179,082 | 925,100 | 966,700 | 1,008,400 | 1,816,128 |
| Miles Plumlee | 1.8 | 3.4 | 1,140,411 | 894,400 | 934,600 | 974,900 | 1,757,745 |
| Arnett Moultrie | 0.9 | 1.6 | 1,107,782 | 868,600 | 907,700 | 946,800 | 1,708,027 |
| Perry Jones | 0.6 | 1.1 | 1,101,226 | 863,300 | 902,100 | 941,000 | 1,698,505 |
| Marquis Teague | -0.4 | -0.8 | 1,093,188 | 857,000 | 895,600 | 934,100 | 1,686,051 |
| Festus Ezeli | 2.0 | 3.8 | 1,085,314 | 850,800 | 889,100 | 927,400 | 1,673,957 |
| Jeff Taylor | 0.4 | 0.8 | 500,000 | | | | |
| Tomas Satoransky | | | 500,000 | | | | |
| Bernard James | 0.6 | 1.2 | 500,000 | | | | |
| Jae Crowder | 3.3 | 6.2 | 500,000 | | | | |
| Draymond Green | 5.1 | 9.6 | 500,000 | | | | |
| Orlando Johnson | 0.8 | 1.4 | 500,000 | | | | |
| Quincy Acy | 1.3 | 2.5 | 500,000 | | | | |
| Quincy Miller | 0.0 | -0.1 | 500,000 | | | | |
| Khris Middleton | 3.5 | 6.6 | 500,000 | | | | |
| Will Barton | 1.2 | 2.3 | 500,000 | | | | |
| Tyshawn Taylor | -0.5 | -0.9 | 500,000 | | | | |
| Doron Lamb | 0.1 | 0.1 | 500,000 | | | | |
| Mike Scott | 2.0 | 3.7 | 500,000 | | | | |
| Kim English | 0.2 | 0.4 | 500,000 | | | | |
| Justin Hamilton | 0.9 | 1.6 | 500,000 | | | | |
| Darius Miller | 0.4 | 0.8 | 500,000 | | | | |
| Kevin Murphy | -0.3 | -0.6 | 500,000 | | | | |
| Kostas Papanikolaou | 0.2 | 0.3 | 500,000 | | | | |

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| | | | |
|---|---|---|---|
| Kyle O'Quinn | 1.6 | 3.0 | 500,000 |
| Izzet Turkyilmaz | | | 500,000 |
| Kris Joseph | -0.1 | -0.2 | 500,000 |
| Ognjen Kuzmic | 0.1 | 0.2 | 500,000 |
| Furkan Aldemir | 1.4 | 2.6 | 500,000 |
| Tornike Shengelia | -0.1 | -0.2 | 500,000 |
| Darius Johnson-Odom | -0.2 | -0.3 | 500,000 |
| Tomislav Zubcic | | | 500,000 |
| Ilkan Karaman | | | 500,000 |
| Robbie Hummel | 1.0 | 1.8 | 500,000 |
| Marcus Denmon | | | 500,000 |
| Robert Sacre | 0.5 | 1.0 | 500,000 |
| | | | |
| | | | |
| Average | 1.1 | 1.9 | 1,315,339 |
| Standard Dev. | 1.4 | 2.7 | 1,108,810.02 |

**Appendix B: Breakdown of Foreign-Trained Players' NBA Contributions**

'Foreign-trained' defined as a player who received regular training outside of the U.S. before reaching the American professional or college level.

2015-16 Qualified Players (MP>750)

2015-16 Qualified Players (MP>750)
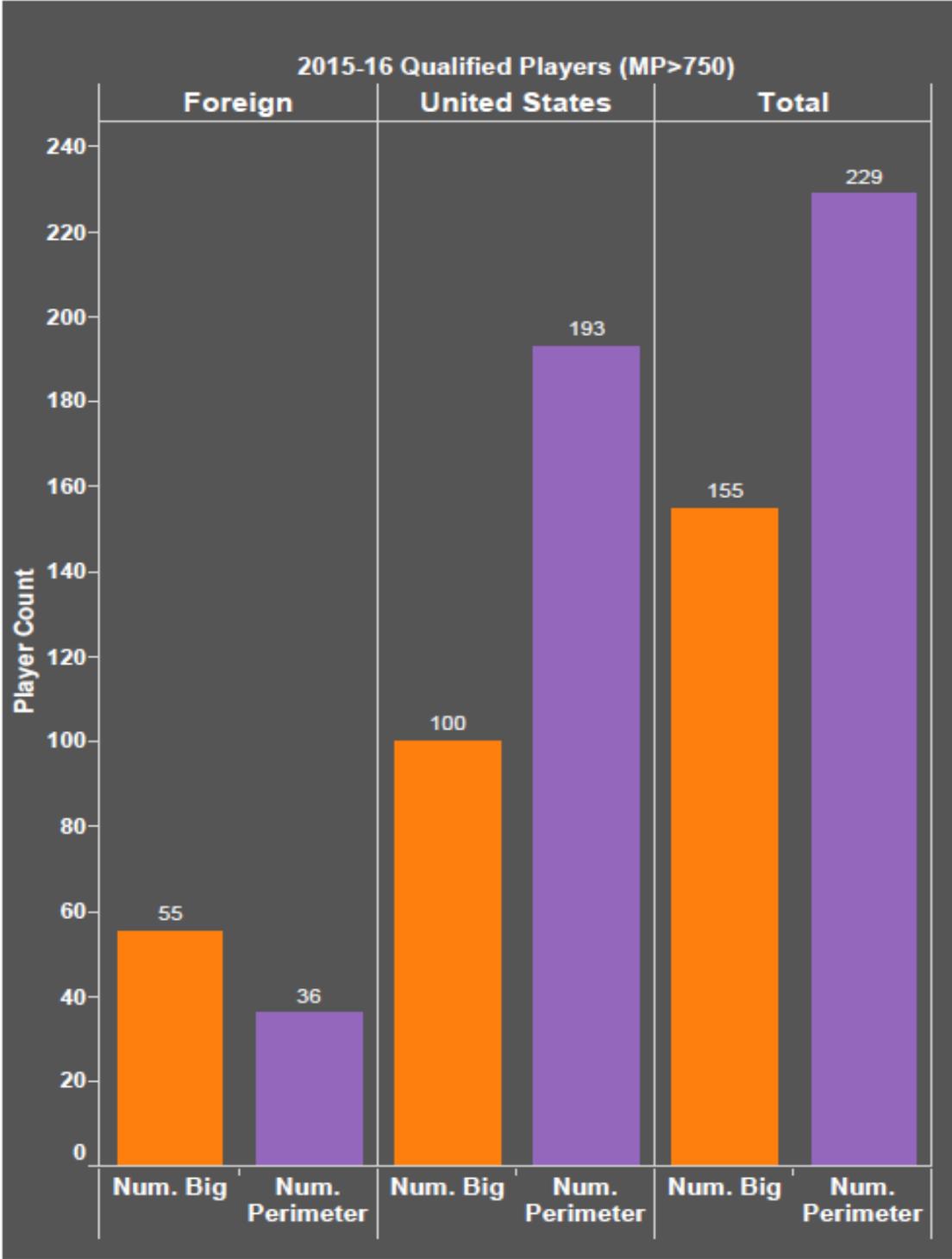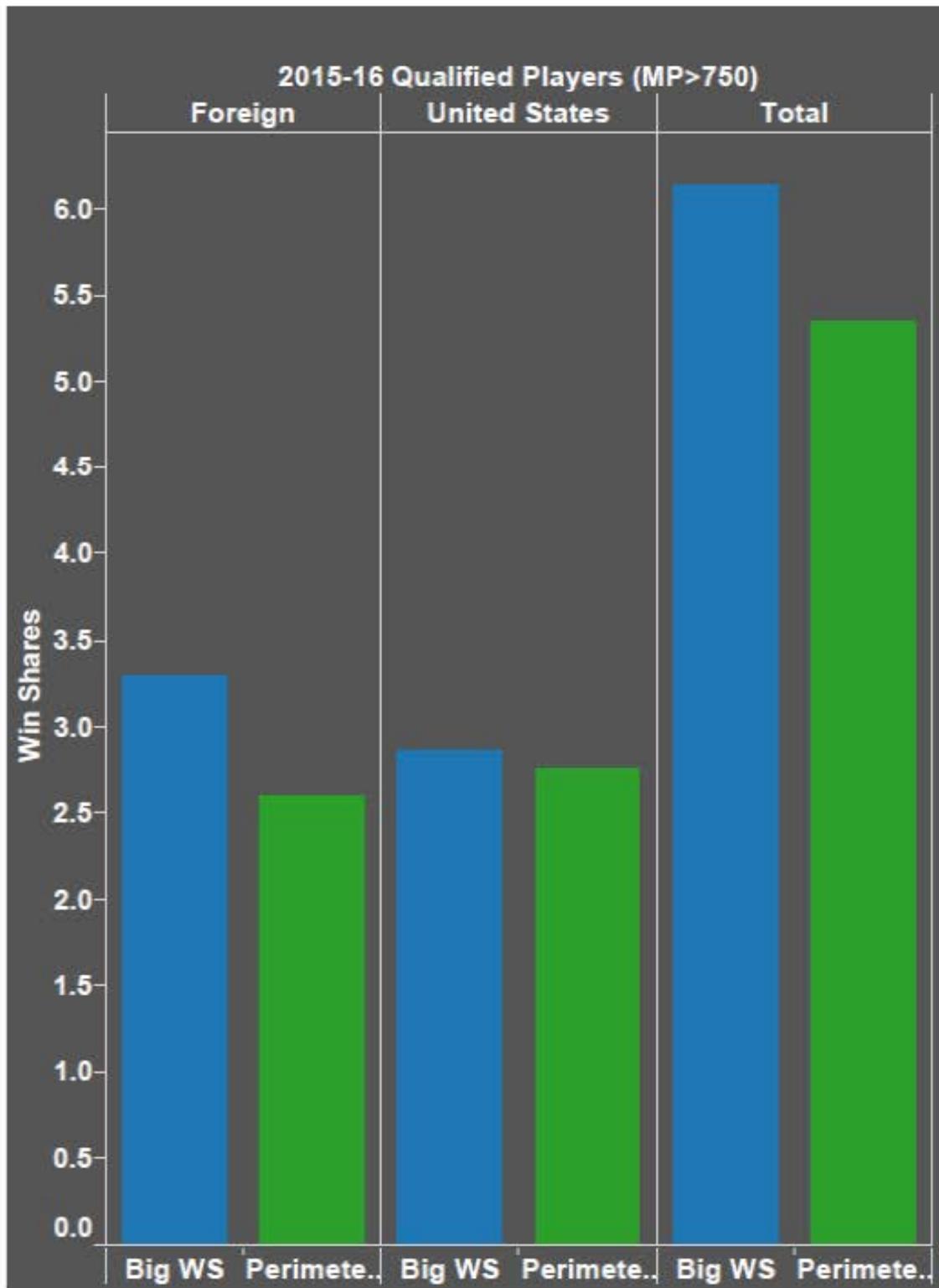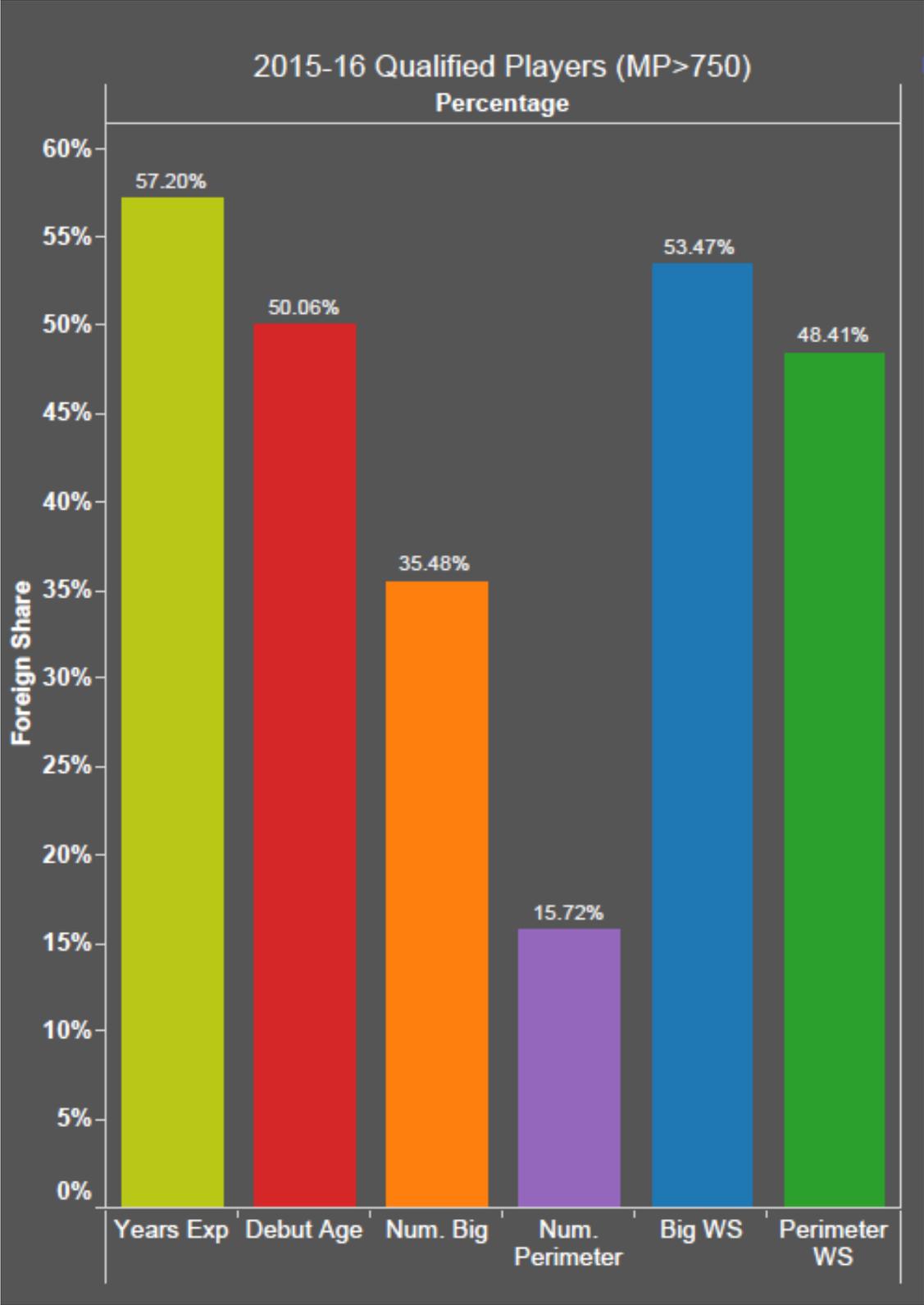
**Appendix C: Selected Graphs from ECA Academy Survey:**

## Budget of the Youth Academies (in k€)



missing 6%
less than 250 11%
250 - 499 13%
500 - 749 11%
750 - 999 4%
1000 - 1249 6%
1250 - 1490 1%
1500 - 1999 8%
2000 - 2499 9%
2500 - 2999 2%
more than 3000 29%
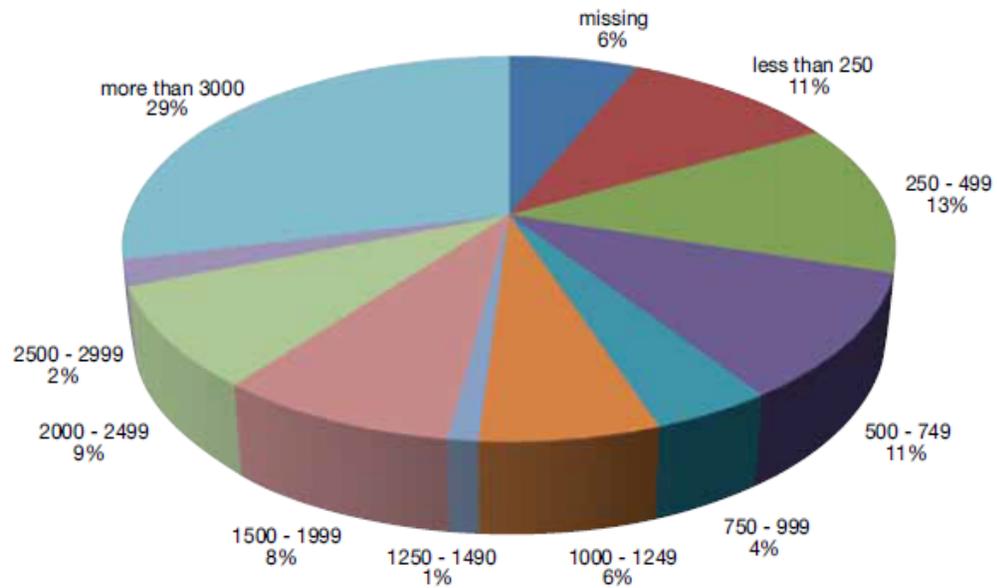
## Share (%) of Youth Academy budget in overall club budget



missing 11%
less than 2% 7%
2 - 3.9% 16%
4 - 5.9% 26%
6 - 7.9% 7%
8 - 10% 18%
more than 10% 15%
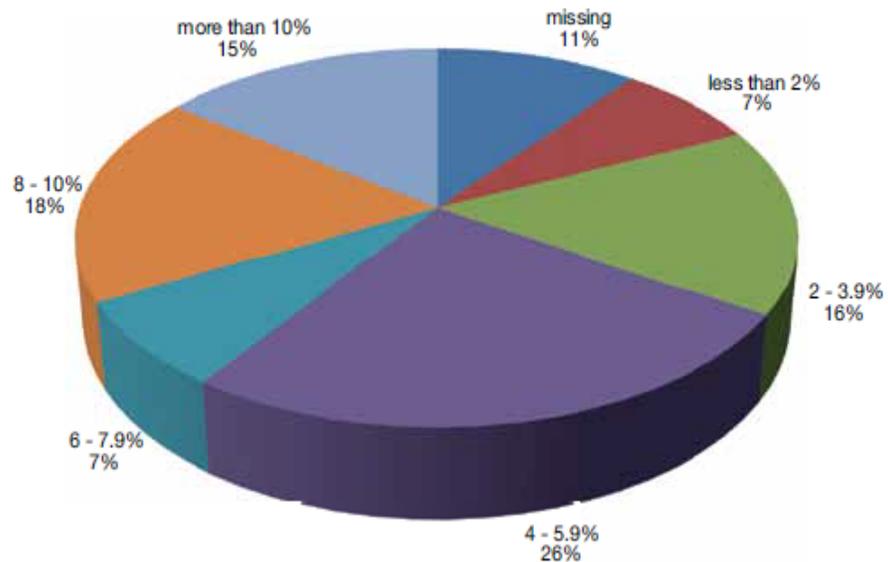
## Significant incomes of Youth Academies (Top 3)
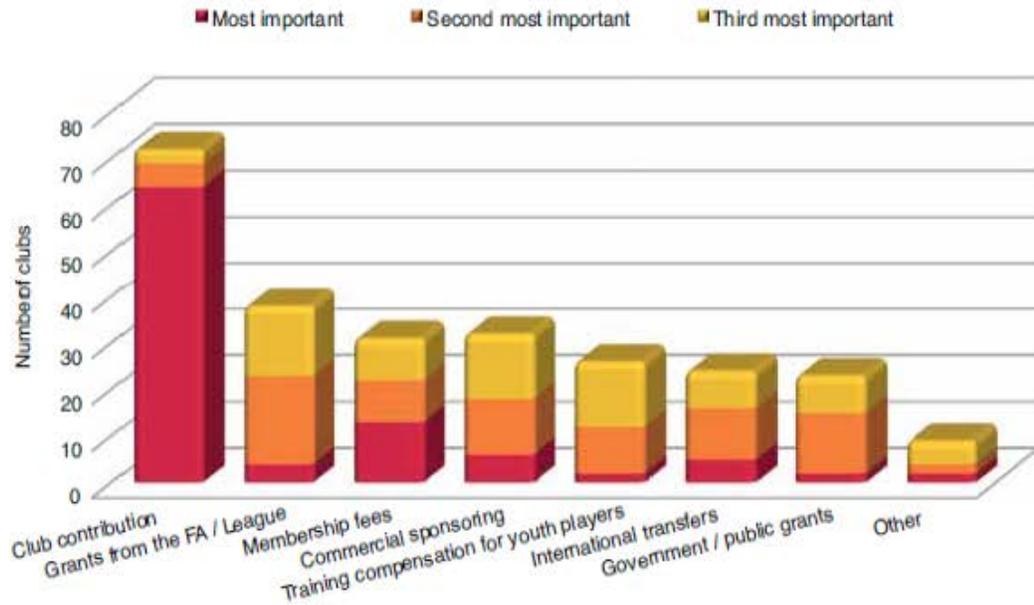


## Significant costs of Youth Academies (Top 3)
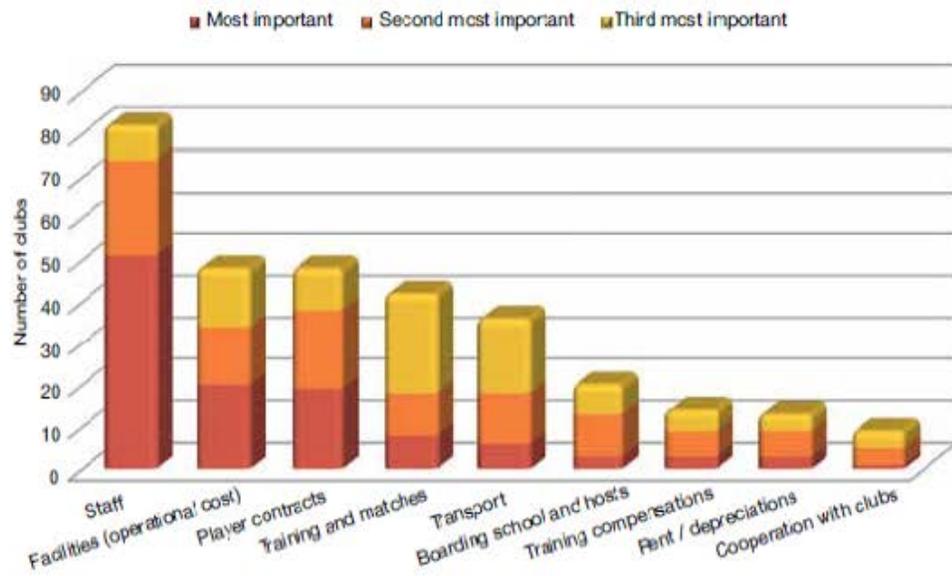
## Strategy regarding transition of youth players to the first team



| | |
|---|---|
| role of academy defined | 87,2 |
| transition strategy | 98,9 |
| ... reserve team is part of strategy | 79,8 |
| ... satellite clubs are part of strategy | 50,0 |
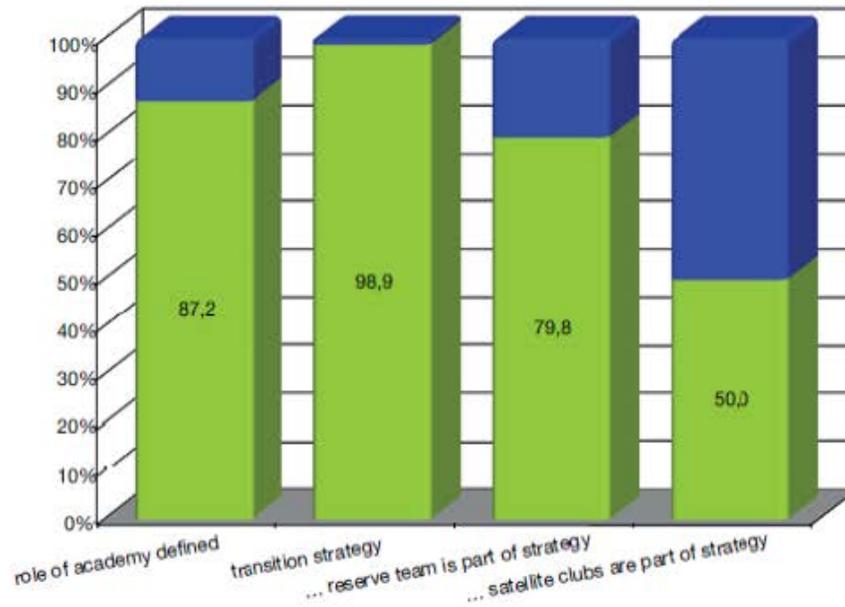
## How is the academy seen at club level? Where does the focus lie?



| separate entity | 7,6 | 92,4 | integral part of the club |
| cost factor | 40,7 | 59,3 | source of income |
| social capital | 34,1 | 65,9 | economic capital |
| regional players | 21,3 | 78,7 | future professionals |
| for internat. market | 13,7 | 86,3 | for 1st team/ nat. market |
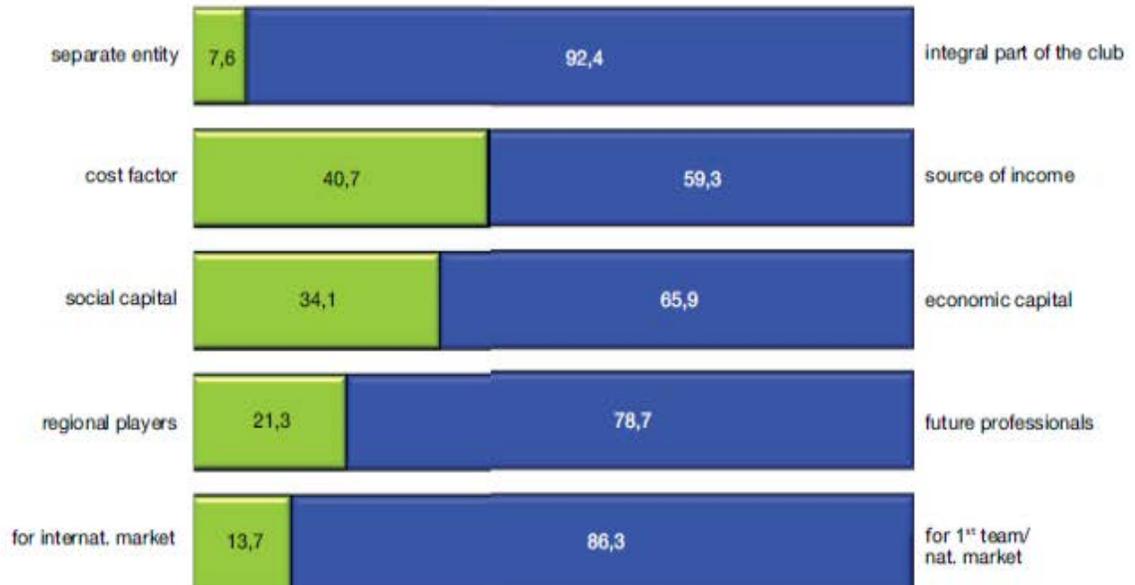
## Objectives of the academy: performance targets in terms of...



Bar chart with values: players for the 1st team 88,3; players for professional football 74,5; financial assets / economic added value 48,9; results with the youth teams 40,4
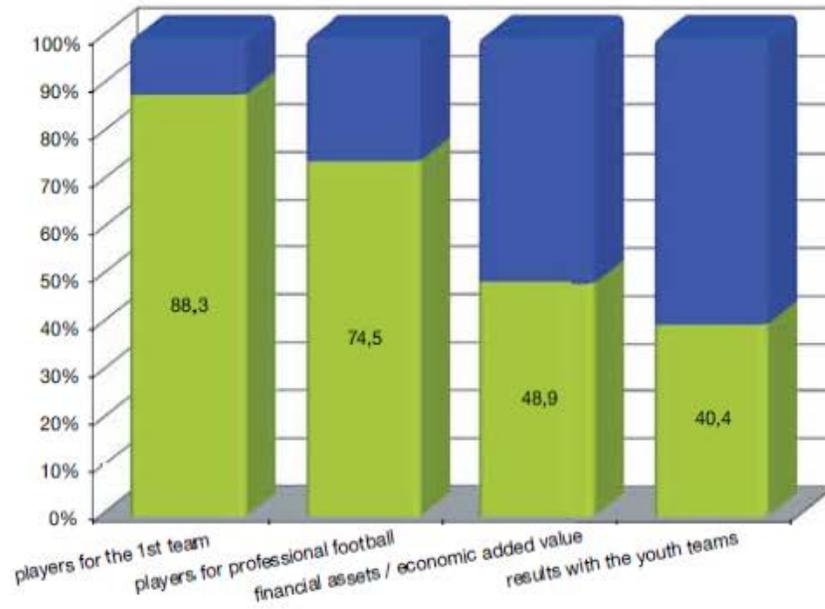
## Involvement of the academy in the technical heart (TH)/ board (TB)* of the club



Bar chart with values: YA represented in TH/TB 79,8; by YA director 67,0; by head of youth coaching 40,4; by reserve team coach 36,2; by other person(s) 6,4
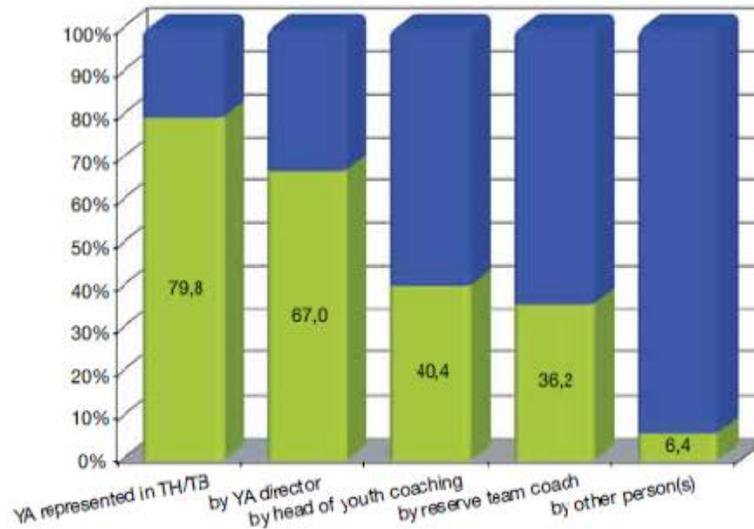
\* The technical heart/board is the department responsible for giving technical advice and support to the club board in developing football philosophy and providing technical guidance to the Academy Manager for the development of the Academy Performance Plan.

## Coaching sessions

### Volume of Team Sessions /Week



### Daytime Coaching /Week



Phase 1: <=U9 Phase 2: U10-U12 Phase 3: U13-U15 Phase 4 >=U16
Vertical lines show the range (min - max)

## Game time

### Number of (regular) Competition Matches / Season



### Game Time (Min.) / Week



Phase 1: <=U9 Phase 2: U10-U12 Phase 3: U13-U15 Phase 4 >=U16
Vertical lines show the range (min - max)

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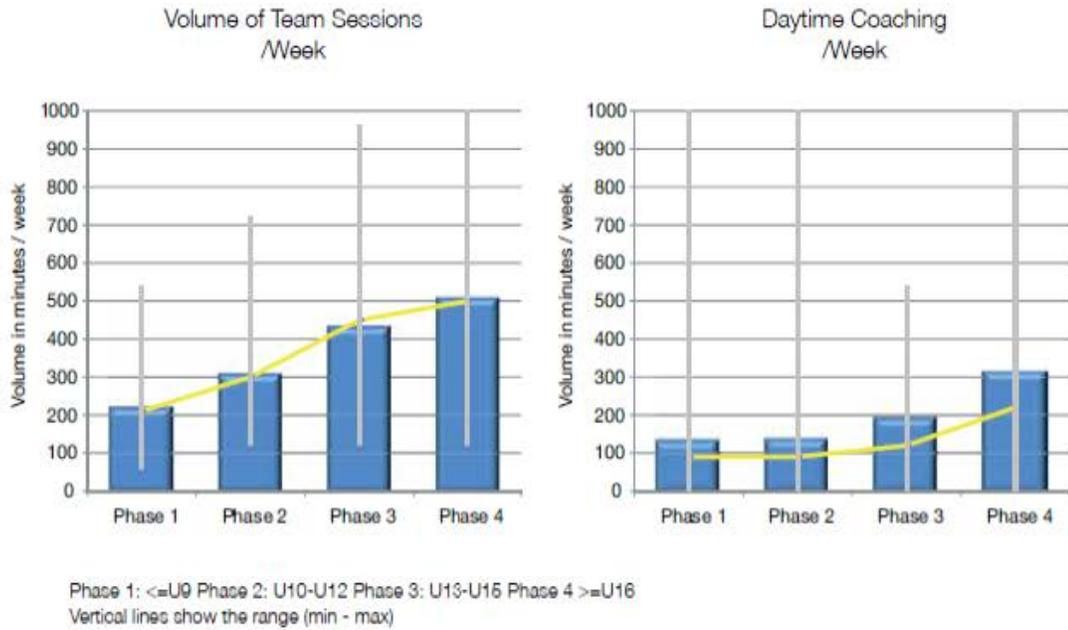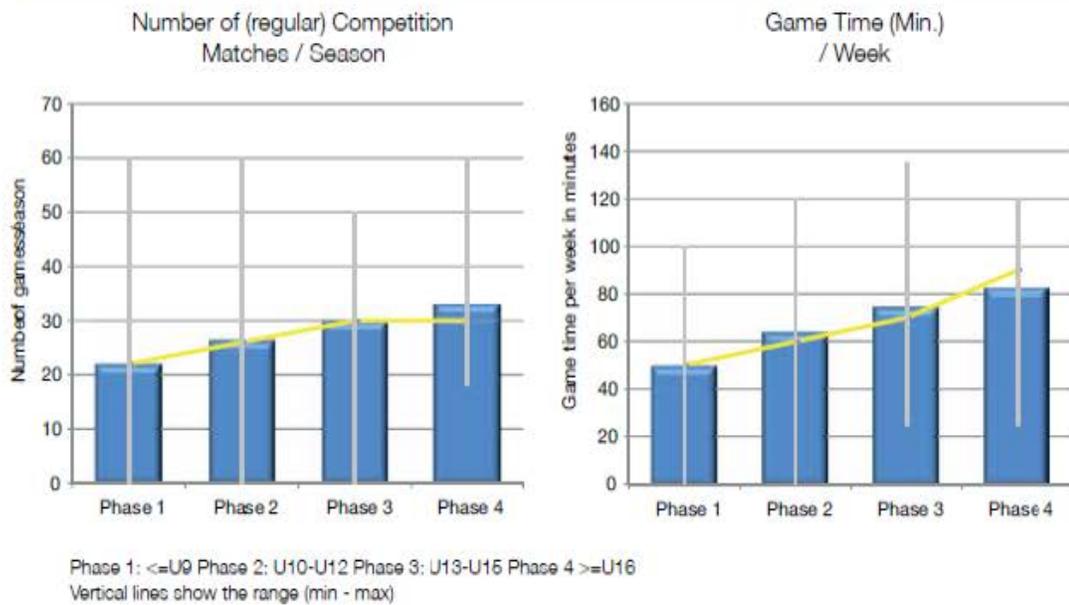
# Medical staff: availability of other staff



| | sport scientist(s) | data analyst(s) | nutricianist(s) | podiatrist(s) | pediatrist(s) |
|---|---|---|---|---|---|
| | 60,6 | 59,6 | 47,9 | 38,3 | 18,1 |
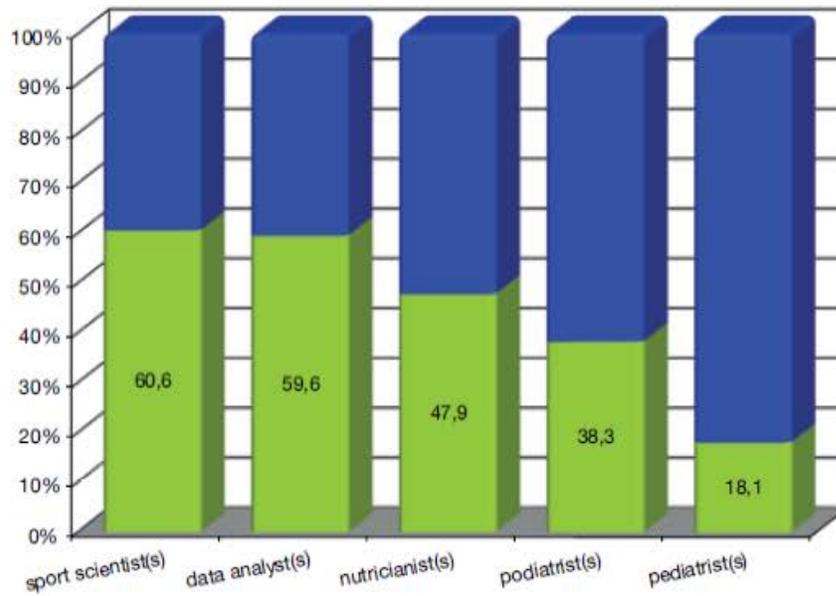
# Psychological support

## 54,3% of clubs have a psychologist



| psychologist | ... involved in coaching programme | ... involved in screening | ... involved in training of coaches |
|---|---|---|---|
| 54,3 | 34,0 | 39,4 | 38,3 |
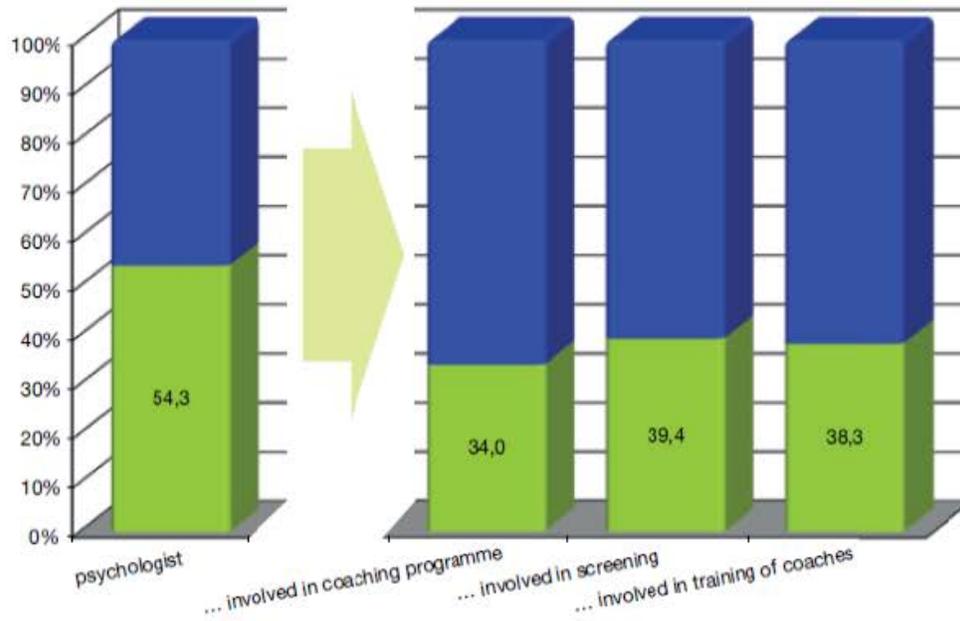
## Do clubs organise a social, academic and lifestyle support?
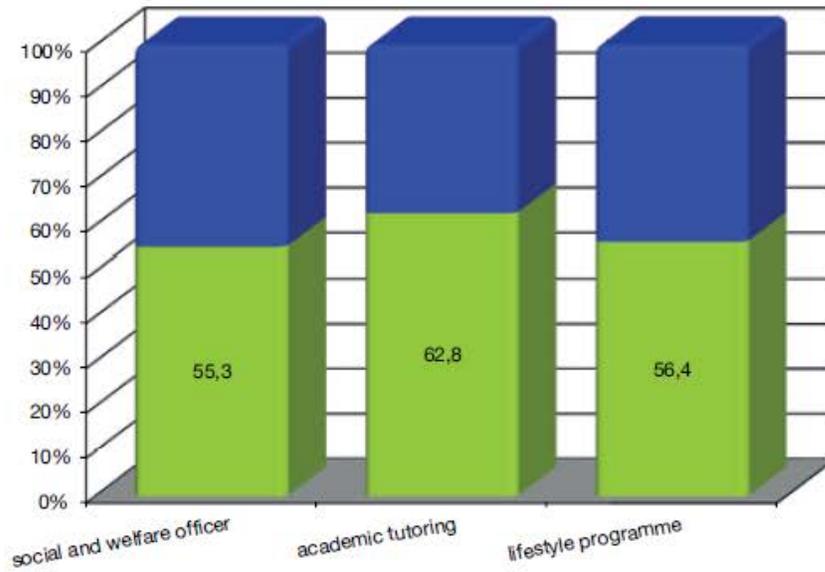


## Partnership with schools / education programme*
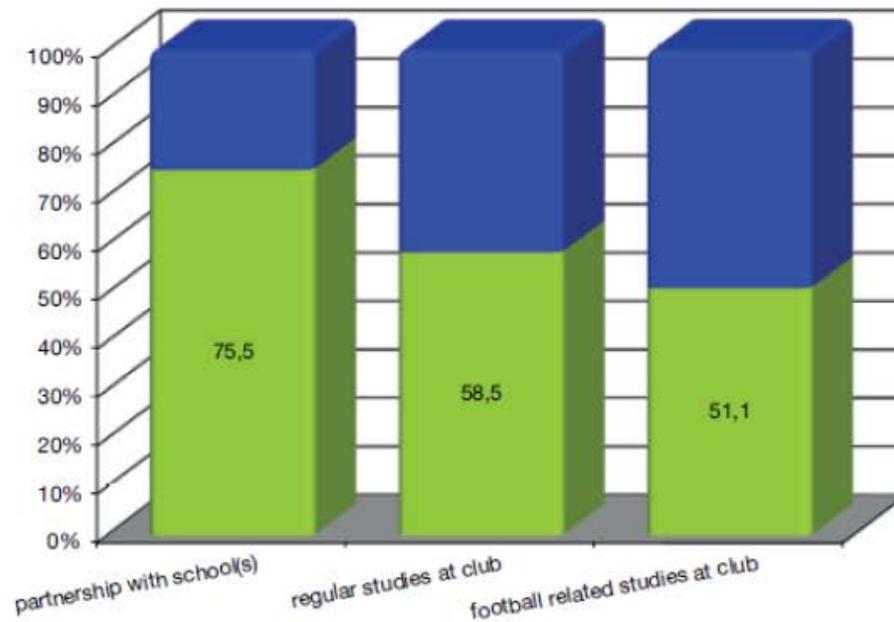


* Football specific school program in which normal studies are combined with a football intensive education

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## Local partnership
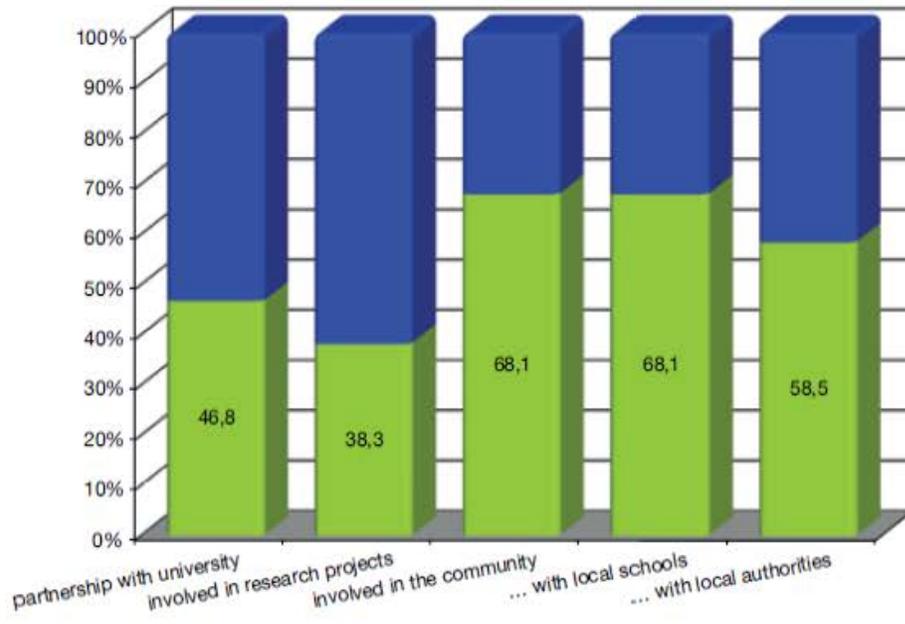


## Academy training centre
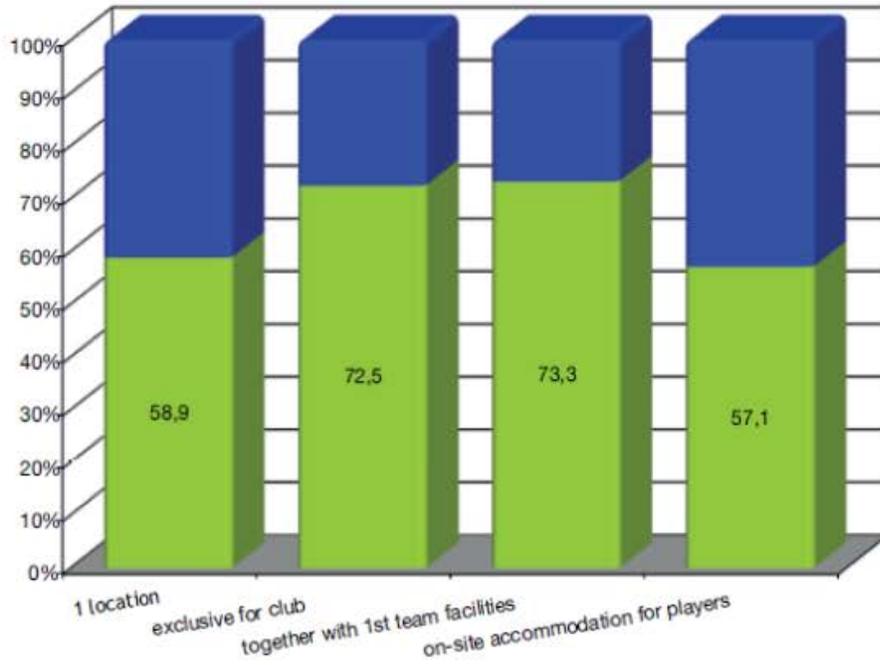
## Team / game size per age group
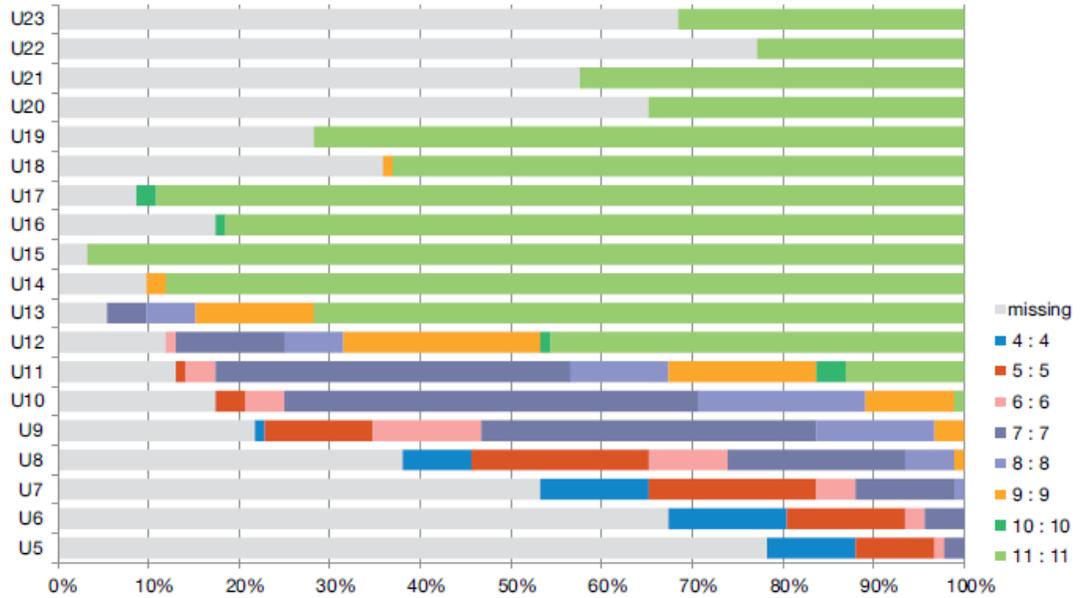


## Appendix D: Assorted Graphs from DFB Report on Ten Years of Youth Academies

## **Proportion of German players** in the professional game

since the Bosman ruling



148
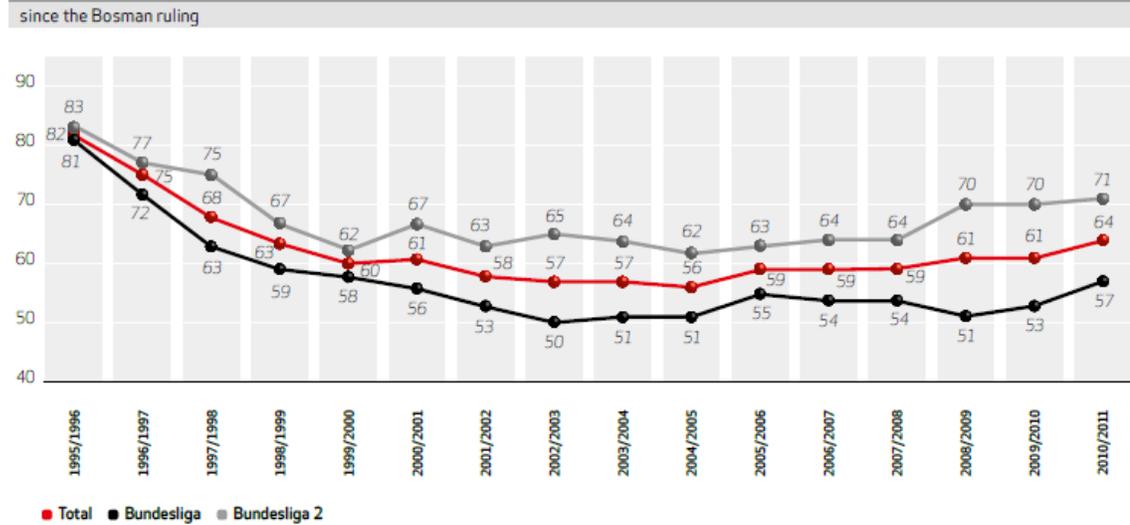
# Average age of Bundesliga players since 2001/2002

in years



| | 2001/2002 | 2002/2003 | 2003/2004 | 2004/2005 | 2005/2006 | 2006/2007 | 2007/2008 | 2008/2009 | 2009/2010 | 2010/2011 |
|---|---|---|---|---|---|---|---|---|---|---|
| | 27.09 | 27.12 | 26.65 | 26.55 | 26.53 | 26.12 | 26.24 | 26.23 | 25.73 | 25.77 |
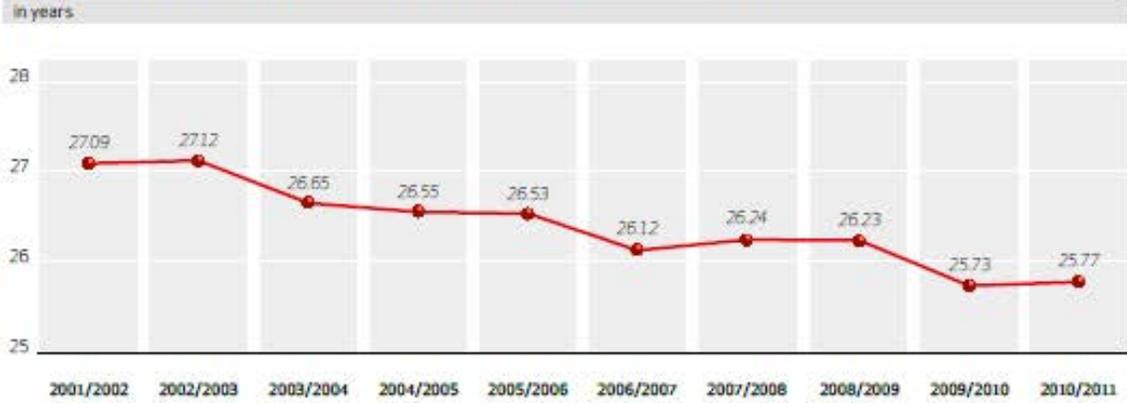
## Qualifications of coaches at the academies of the Bundesliga

| | Full-time | Part-time | Pro | A licence | B licence | C licence | No licence | Total clubs |
|---|---|---|---|---|---|---|---|---|
| **Academy Sporting Director** | 26 | 0 | 15 | 8 | 0 | 1 | 2 | 18 |
| **Coach, U23s** | 27 | 3 | 15 | 13 | 1 | 1 | 0 | 18 |
| **Coach, U18s/19s** | 20 | 10 | 15 | 12 | 1 | 2 | 0 | 18 |
| **Coach, U16s/17s** | 22 | 21 | 10 | 26 | 5 | 2 | 0 | 18 |
| **Development coach, U14s/15s** | 18 | 29 | 3 | 22 | 14 | 4 | 4 | 18 |
| **Development coach, U12s/13s** | 3 | 39 | 0 | 20 | 17 | 5 | 0 | 18 |
| **Academy goalkeeping coach** | 19 | 23 | 3 | 12 | 6 | 14 | 7 | 18 |
| **Total** | 135 | 125 | 61 | 113 | 44 | 29 | 13 | 18 |

## Qualifications of coaches at the academies of the Bundesliga 2

| | Full-time | Part-time | Pro | A licence | B licence | C licence | No licence | Total clubs* |
|---|---|---|---|---|---|---|---|---|
| **Academy Sporting Director** | 26 | 1 | 12 | 9 | 1 | 2 | 3 | 17 |
| **Coach, U23s** | 15 | 7 | 10 | 8 | 2 | 1 | 1 | 17 |
| **Coach, U18s/19s** | 14 | 10 | 1 | 19 | 3 | 1 | 0 | 17 |
| **Coach, U16s/17s** | 5 | 38 | 0 | 25 | 14 | 1 | 3 | 17 |
| **Development coach, U14s/15s** | 7 | 37 | 2 | 24 | 13 | 3 | 2 | 17 |
| **Development coach, U12s/13s** | 3 | 34 | 2 | 9 | 16 | 8 | 2 | 17 |
| **Academy goalkeeping coach** | 7 | 22 | 0 | 6 | 4 | 8 | 11 | 17 |
| **Total** | 77 | 149 | 27 | 100 | 53 | 24 | 22 | 17 |

*17 clubs, since the youth academy of one of the clubs is still being set up.

## Qualifications of coaches at the academies of the licensed football clubs

Effective from: 2010/2011 season

| | Full-time | Part-time | Pro | A licence | B licence | C licence | No licence | Total clubs* |
|---|---|---|---|---|---|---|---|---|
| **Academy Sporting Director** | 52 | 1 | 27 | 17 | 1 | 3 | 5 | 35 |
| **Coach, U23s** | 42 | 10 | 25 | 21 | 3 | 2 | 1 | 35 |
| **Coach, U18s/19s** | 34 | 20 | 16 | 31 | 4 | 3 | 0 | 35 |
| **Coach, U16s/17s** | 27 | 59 | 10 | 51 | 19 | 3 | 3 | 35 |
| **Development coach, U14s/15s** | 25 | 66 | 5 | 46 | 27 | 7 | 6 | 35 |
| **Development coach, U12s/13s** | 6 | 73 | 2 | 29 | 33 | 13 | 2 | 35 |
| **Academy goalkeeping coach** | 26 | 45 | 3 | 18 | 22 | 22 | 18 | 35 |
| **Total** | 212 | 274 | 88 | 213 | 97 | 53 | 35 | 35 |

*35 clubs, since the youth academy of one of the clubs is still being set up.

**Appendix E: Canadian NBA Draft History of Last 20 Year, Per Basketball Reference**



| Player | Year | Pk |
|--------|------|----|
| Steve Nash | 1996 | 15 |
| Todd MacCulloch | 1999 | 47 |
| Jamaal Magloire | 2000 | 19 |
| Samuel Dalembert | 2001 | 26 |
| Denham Brown | 2006 | 40 |
| Andy Rautins | 2010 | 38 |
| Cory Joseph | 2011 | 29 |
| Tristan Thompson | 2011 | 4 |
| Andrew Nicholson | 2012 | 19 |
| Kris Joseph | 2012 | 51 |
| Robert Sacre | 2012 | 60 |
| Anthony Bennett | 2013 | 1 |
| Kelly Olynyk | 2013 | 13 |
| Andrew Wiggins | 2014 | 1 |
| Dwight Powell | 2014 | 45 |
| Nik Stauskas | 2014 | 8 |
| Tyler Ennis | 2014 | 18 |
| Olivier Hanlan | 2015 | 42 |
| Trey Lyles | 2015 | 12 |

Canadian Draftees vs. Draft Slot Average — Average WS Per Draft Slot

**Appendix F: Canadian Basketball LTAD Stages (Direct Quote)**

**Canada Long-Term Athlete Development Model - Basketball**

*Active Start - (Ages 0-6)*

**Active Start To-Do List**

• Provide organized physical activity for at least 30 minutes a day for toddlers and at least 60 minutes a day for preschoolers.

• Provide unstructured physical activity - active play - for at least 60 minutes a day and up to several hours per day for toddlers and preschoolers. Toddlers and preschoolers should not be

sedentary for more than 60 minutes at a time except when sleeping.

• Provide physical activity every day regardless of the weather.

• Starting in infancy, provide infants, toddlers and preschoolers with opportunities to participate in daily physical activity that promotes fitness and movement skills. Provide parents and caregivers with age-appropriate information.

• Ensure that children acquire movement skills that build towards more complex movements. These skills help lay the foundation for lifelong physical activity.

• Encourage basic movement skills - they do not just happen as a child grows older, but develop depending on each child's heredity, activity experiences and environment. For children with a disability, access to age and disability appropriate adapted equipment is an important contributor to success.

• Focus on improving basic movement skills such as running, jumping, twisting, wheeling, kicking, throwing and catching. These motor skills are the building blocks for more complex movements.

• Design activities that help children to feel competent and comfortable participating in a variety of fun and challenging sports and activities.

• Ensure that games for young children are non-competitive and focus on participation.

• Because females tend to be less active than males and children with disabilities less active than their peers, ensure that activities are gender-neutral and inclusive so that active living is equally valued and promoted for all children.

*FUNdamental Stage - (Ages 6-8 females, 6-9 males)*

The goal at this level is to learn fundamental movement skills through basketball in a positive fun way. The participants will be introduced to very basic fundamental basketball skills. It is not to win, but rather to have fun while playing sports and ensuring success. It is the coach's duty to guarantee success for every participant. The intended emphasis should be focused on giving children the basic fundamental movement skills; agility, balance, coordination and speed; thereby making them physically literate. Providing these basic athletic skills will build a base for the child that will enable him or her to develop to their full physical potential in later years. Players should learn good practice technique. Enjoyment of the experience is paramount and to aid this, coaches will strive to make certain that all the children will be successful in accomplishing given tasks.

*Points of Emphasis*

• Fundamental movement skills

     • Agility

     • Balance

- Coordination (throwing and catching)

- Proper running technique - forwards, sideways and backwards

- Change of speed and direction

- Jumping and landing

- Starting and stopping (jump stop, stride stop)

- Pivoting-front and reverse

- Fundamental Basketball Skills

  - With and without ball

  - Ready Position

  - Offence - triple threat stance

  - Vision - play with eyes up

- Ball Handling

  - Ball control

  - Stationary dribbling (low, high, wide)

  - Movement while dribbling (running, sliding, walking, change of direction,

starts, stops, low, high)

- Passing Skills

  - Stationary passing

  - Moving passing

  - Passing to a teammate

  - Receiving the ball - absorbing

  - Catching on the move

  - Catching the ball with 2 hands, 2 eyes, 2 feet

- Shooting Skills

  - Squaring feet and shoulders to sight the target

  - Push with both legs

  - Follow through (release) - first without ball/then with ball

  - Close range shots

  - Lay-up progression

*Playing Principles - Basic Offensive Concepts*

- Advancing the ball towards your offensive basket

• Shooting the ball into the basket to score

• Spacing of players (ideal spacing is 3 to 4 m)

• Cutting of players (away from the ball or towards the ball)

*Playing Principles - Basic Defensive Concepts*

• Recognition of knowing when you are on defence

• Recognition of the person he/she is defending

• When defending the ball, stay between the person you are guarding and the basket

• When defending away from the ball, stay between the person you are guarding and the basket

**Game Modifications**

To properly develop basketball players, we must alter the training environment of this group of athletes in order to suit their needs. The following modifications are recommended:

• Play with a smaller-sized basketball either a size 3 or 5. Small hands require small basketballs;

• Play at lower hoops. It is much easier for young players to learn to shoot correctly on hoops that are within their range. (2.60 metres is recommended);

• Reduce the number of players when scrimmaging as this allows everybody more opportunity to handle the ball. (3-on-3 or 4-on-4);

• Play player-to-player defence;

• There will be many rules violations (e.g. double dribbles, travels and other violations). Let many of them go, but explain the infraction as learning opportunity for the entire group;

• Have players play an equal amount of time of during the modified games;

• Players should be taught balanced spacing on the court. Avoid designating set positions that limit players having the opportunity to handle the ball;

• Coaches must use creative scoring principles in order to encourage learning. For example, a team scores a point for every pass completed;

• It is not recommended to keep a visible score at this time. The focus is on play and not finding the winner of the game.

**Developmental Characteristics**

*Physical Development - Basic Characteristics*

• Larger muscle groups are more developed than smaller ones;

• The cardiovascular system is still developing;

• Basic motor patterns become more developed near the end of this phase and balance is maturing;

• Females develop coordination faster than males;

• Fast twitch muscle fi bre (those parts of the muscle that are responsible for athlete quickness) recruitment can contribute to future speed capacities. Speed work must be part of warm-ups

when players are fresh.

*Physical Development - Performance Capabilities*

• The child's aerobic system (for activity that lasts longer than 2 minutes) is trainable but emphasis should be on the anaerobic system (for quick activities or bursts of activity that last up to 10 seconds);

• Children are more skilful in gross movements involving large muscle groups than in precisely coordinated movements involving interaction of small muscles;

• The body is very susceptible to injuries through stress or heavy pressure;

• There is improvement in speed, agility, balance, coordination and flexibility towards the end of this phase.

*Physical Development - Performance Indicators*

• The child demonstrates the ability to perform correct running, jumping, catching and throwing skills;

• The child demonstrates the ability to perform the basic movement skills of starting, stopping, change of direction, change of speed;

• The child demonstrates a progression in developing the ABC's of Athleticism (agility, balance, coordination and speed);

• The coach monitors body alignments (ankle, hip, shoulder, back). This is explained in NCCP Community Coach and Introduction to Competition;

• The child participates in as many activities as possible, ideally 4 per week (2 are basketball, 2 are other sports or activities and should be physically active for the other three days of the week).

*Physical Development - Implication for Coach*

• Basic athletic skills should be developed during this phase;

• Short duration, anaerobic activities and alactic (short bursts of energy) activities should be planned. Endurance must be developed through play and games;

• Use slow progressions in hopping and bounding. Strength training limited to the body weight of the athlete, Swiss balls and medicine balls;

• Activities should emphasize coordination and kinaesthetic sense;

• Gymnastics, diving and athletics are excellent for the development of young athletes. Obstacle courses and relays are activities that improve the child's athleticism;

• Work on speed (ability to react to stimuli and move as fast as possible to desired destination) when children fresh;

• Children should be active (not necessarily basketball) at least 4 times per week for improvements to be made.

*Physical Capacities*

The framework of the Five S's of Training and Performance will be used throughout the Athlete Development Model to describe the trainability of the various training and performance factors, namely:

  • Stamina (or endurance)

  • Strength

  • Speed

  • Skill

  • Suppleness (or flexibility)

• The Principles of Training and Performance during the FUNdamental Stage:

  • Stamina - At this stage, the trainability of the aerobic system is good. Aerobic training should take place in the form of games with an aerobic component. Young athletes usually have a fairly short attention span so a variety of games presented one after the other is ideal.

Aerobic games on and off court should be emphasized.

  • Strength - Strength gains during pre-adolescence are possible. It appears that children are as trainable as adolescents or young adults but strength gains for this age group are mainly in relative strength (percentage improvements) rather than in absolute

strength. Strength gains before puberty occur through improvements in motor coordination, and through morphological and neurological adaptations. Exercise and increased muscle activation will also increase

strength. It is important to remember that structural changes, such as muscle hypertrophy (muscle shrinkage), should not be expected for this age group. Strength training can be introduced at a very early training age using the athlete's own body weight, Swiss balls and medicine balls in exercises that are fun. Swiss ball exercises contribute to core stabilization (strengthening the muscles of the mid-section so that the centre of gravity is maintained over the base of support during movement - these result in efficient movement) and upper and lower body strength development and help to develop balance. The development of core stabilization is very important at all training ages.

• Speed - two sensitive windows of time are identified in the scientific literature as potential periods for accelerated adaptation to speed training (Viru et al., 1998/1999) are:

° Females 6 to 8 years and 11 to 13 years

° Males 7 to 9 years and 13 to 16 years

The first window for speed training for both females and males is not energy system but rather Central Nervous System (CNS) training (agility, quickness, change of direction). The volume and duration of training is very low but the CNS and to some extent, the anaerobic alactic system (the system used in activities of less than 10 seconds) should be challenged. Anaerobic alactic, power and capacity should be trained by interval training (a series of short sprints). This training should only begin during the second window of accelerated adaptation to speed training which occurs in the Train to Train stage.) Interval training is not recommended for the FUNdamental stage.

• Skill - the primary importance of this stage is to develop physical literacy, including the ABC's of Athleticism - Agility, Balance, Coordination and Speed; the ABC's of Athletics - run, jump, throw. The introduction to these activities is crucially important for future athletic development. These basic fundamental movement skills should be mastered during this stage.

Physical literacy is most trainable from the ages of 5-12. It is important to note that skill trainability gradually declines after 11-12 years of age or more precisely after the onset of the growth spurt.

• Suppleness - the introduction to the basics of flexibility training should be done through fun and games. The use of dynamic follow-the-leader-type activities where the children move their bodies in all directions, twisting and turning the body in different planes are desirable.

Flexibility is a key training and performance factor. Optimal individual and sport-specific flexibility should be established at a very early training age. Flexibility training should be done 5 to 6 times per week if flexibility needs to be improved. 2 to 3 sessions of flexibility training each week or flexibility training every other day will maintain current flexibility levels. Static stretching (stretching that is done very slowly, in which a body part is held for 15-20 seconds) should be removed from warm ups. Static stretching does not prevent injuries, however fitness does. In principle, static stretching and PNF (proprioceptive neuromuscular facilitation - a limb is actively and slowly taken to its end point) should be performed 2 hours prior or 2 hours after training and/or competition activities.

*Mental and Cognitive Development - Basic Characteristics*

• Children must be active because attention spans tend to be short;

• Children have a limited reasoning ability;

• Children should repeat movements;

• Children have blossoming imaginations.

*Mental and Cognitive Development - Performance Capabilities*

• Children cannot sit and listen for long periods of time;

• Children like and need to be led;

• Children should be able to experiment and create.

*Mental and Cognitive Development - Performance Indicators*

• The children will become restless and easily distract when listening;

• There will be hesitation in following the instruction;

• The child may have a look of confusion.

*Mental and Cognitive Development - Implication for Coaches*

• Use short clear, simple instructions. Children want to move and to participate in actions;

• Coaches should adopt a "follow me" approach;

• Coach must be able to provide a correct demonstration and correction of skills;

• Coaches should encourage input from children.

*Mental and Cognitive Development - Psychological Skills*

• The coach should provide a positive environment, based on positive reinforcement;

• The coach should provide enormous encouragement;

• The coach should keep things simple, and have a good demonstration of skills;

• The coach should encourage and promote self expression and self discovery;

• The coach should utilize activities that challenge and promote fun and success;

• The coach should emphasize effort verses outcome;

• The coach should combine males and females together in activities;

• The coach should encourage interaction with peers;

• The coach should provide an environment in which the children have fun while learning, playing and developing.

*Mental and Cognitive Development - Performance Indicators*

• The player should demonstrate enthusiasm and desire to play and learn in a positive environment;

• The player should demonstrate the ability to deal with simple problem-solving tasks that arise out of activities;

• The player should demonstrate the ability to understand the concept of team, as well as the concept of cooperation, respect and fair play;

• The player should focus on being the best he/she can be by trying to give his/her best effort;

• The player has fun while learning, playing and developing.

*Emotional Development - Basic Implications*

• The child's self concept is developing through experience and comments from others;

• Children like to be the center of focus and attention;

• Influence of peers becomes very strong;

• The child wants challenges and opportunities to experiment with all kinds of activity and movement. There is a limited fear attitude;

• The child understands the need for rules and structure.

*Emotional Development - Performance Capabilities*

• Children perceive athletic experiences as a form of self expression;

• If a situation becomes threatening children tend to lose confidence;

• Children enjoy playing simple games with simple rules.

*Emotional Development - Performance Indicators*

• The child will be excited to try new activities;

• Children will ask the coach to observe what he/she has done;

• Children participate with enthusiasm in an activity;

• There will be no arguing about the rules;

• Everyone is participating, no one is left out.

*Emotional Development - Implications for Coaches*

• The coach needs to provide positive reinforcement on a regular basis;

• The coach needs to structure all activities so success is guaranteed;

• The coach must be able to properly assess the basic skills and provide a varied repertoire of practical opportunities for the technical and tactical development and improvement of players;

• The coach should endeavour to make children feel comfortable enough to try a variety of activities. Do not worry about mistakes of a technical nature

*Emotional Development - Ancillary Capacities*

• Activity elements of warmup and cool down need to be introduced and implemented regularly by the coach so that the children can establish their own routines;

• Proper gym and activity apparel are important elements of sports;

• Introduction and development of healthy nutrition and hydration habits are guidelines set forth by the coach. This information should be provided to players and parents;

• Players should be introduced to a simple debriefing procedure. The coach can ask the players simple questions:

    ° What did you do well today?

    ° What did you learn?

      &deg; What did you like best about today's practice?

      &deg; It is best to draw from the players and not tell them what you observed as a coach. This should be done after the players have a chance to speak.

**Practical Applications for the FUNdamental Phase**

• The various stages of physical, cognitive and emotional development are predictable, but the rate or tempo of that development is individually and genetically determined. Thus, athletes will go through the same development but at different rates;

• As many sports as possible should be included in the athlete's development. Sports such as gymnastics and athletics should be high on the list since the ABC's are taught and learned in these sports;

• Speed and power training are essential during these years to teach the central nervous system how to fire properly. This type of training should be done at the beginning of practice sessions

while players are fresh;

• Use body weight for strength, endurance, agility and speed development. Keep it fun and stay within the training guidelines to avoid overtraining and burnout;

• Make everything into a game;

• Technical and tactical development should be constructed in a way that ensures success for players. Tactical solutions must be based on technical abilities;

• Remember that 3 training sessions per week is maintenance only. For young players to improve, they must be active 4 times per week (ideally, 2 are basketball, 2 are other sports or activities and should be physically active for the other 3 days of the week).

• A sample practice plan for players aged 6-9 years:

      • 60 minutes in length

      • Warm-up including speed work and agility 5-10 min

      • Technical skills and drills 35-40 min

      • Scrimmage and simple tactics 10 min

      • Cool down 5 min

• Emphasis should be placed on:

      • Acquiring the ABC's of Athletics;

      • Basic basketball fundamentals;

    • Playing to have fun;

    • Playing games through which the rules, cooperation and fitness will be developed.

***Learn to Train Stage (L2T) - (Basketball Skills) - (Ages 8-11 females, 9-12 males)***

    This is the major motor learning stage. One of the most important periods of motor development for children is between the ages of 9-12 (Balyi and Hamilton, 1995; Brohms, 1985; Rushall; 1998; Viru et al., 1998 and 1999). During this time, children are developmentally ready to acquire the fundamental movement skills that are the cornerstones of all athletic development. The fundamental skills described previously as "physical literacy" should be taken to a higher level at this stage. In addition the basic basketball skills should be mastered, but participation in other sports is still encouraged. Young athletes at this stage need to learn how to train at its most basic level. They should be introduced to the basic technical/tactical basketball skills and ancillary capacities including: warmup and cool down, stretching, hydration and nutrition, recovery and regeneration and mental preparation. Parents should be educated in this information (See www.ltad.ca; Developing Physical Literacy: A Guide for Parents of Children Ages 0 to 12

and Steve Nash Youth Basketball Parent's Guide.) This knowledge base is developed even further in the later stages of athlete development. This focus on training rather than on competing should be reflected in the annual competition calendar for this group of athletes. Too many competitions waste valuable training time. Conversely, not enough competition inhibits the practice of technical skills (decision making) and learning how to cope with the physical and mental challenges presented by competitions. The key is to find the proper balance. The Competition Review for Canadian Basketball will be tasked with determining the minimum number of competitions that allows the players to apply their skills in a competitive environment and develop games sense, but do not exceed the maximum number of games that will inhibit training and development. Focus on the process not the outcome.

*Points of Emphasis:*

    If fundamental movement skills training are not developed between the ages of 8 to 11 for females and 9 to 12 for males, skills may not be fully recaptured at a later time

(although carefully planned and early remedial programs can contribute to limited success.) For this reason fundamental movement skills and fundamental sport skills must still be stressed during this stage.

• Fundamental Movement Skills
- • Developed and refined
• Fundamental Basketball Skills - Ready Position - Without Ball
- • Develop and refined
- • Movement - change of direction, change of pace and faking
- • Vision - play with eyes up, scanning
• Fundamental Basketball Skills - Ready Stance - With Ball
- • Triple threat
- • Holding the ball
- • Footwork - pivoting (front and reverse), using both feet to pivot on
- • Movement with ball - jump stops, stride stops
- • Starting - being able to push off effectively with both feet. With and without the ball
• Dribbling
- • Stationary dribbling with left and right hand
- • Dribbling while moving with left and right hand in all directions
- • Speed dribble, control dribble, change of direction dribble with left and right hand
- • Vision - be able to handle the ball while scanning the floor
• Passing and Catching
- • Introduction or refinement of the basic stationary passes (chest, bounce, overhead, baseball)
- • Passing and catching on the move
- • Passing and catching against an opponent
• Shooting
- • Introduce BEEF (Balance, Eyes, Elbow, Follow through), concepts of shooting should become more exact
- • Introduce or refine technique for lay-ups from both sides

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- Developing One on One Skills

    - Triple threat stance, squaring up to the basket

    - Reading the defence

    - Ball fakes and foot fakes (small and quick)

    - Getting Open

    - Moving to get open

    - Coming to the pass

    - Pivot to be an offensive threat

- Defensive Stance on the Ball

    - Introduce stance

    - Moving in your defensive stance while staying between the player you are guarding and    the basket

    - Guarding the ball - maintain a gap between the defender and ball handler

- Defensive Stance Away from the Ball

    - Staying between the player you are guarding and the basket

    - Seeing the player you are guarding and the ball

    - Helping your teammates

    - Recover to the player you are guarding as he/she receives the ball

*Playing Principles - Offensive Concepts*

- Playing with the purpose of scoring

- Playing 1-on-1

- Spacing 3 to 4 metres

- Give and go

- Cut and replace/fill

- Read the defence to attack and score

Note: More time should be spent on offensive concepts than defensive concepts in this stage.

*Playing Principles - Defensive Concepts*

- On the ball strategies - staying in stance between the player being defended and the basket

- Off the ball strategies - staying near the player being defended but always seeing the

ball

• Towards the end of stage introduce defensive triangle (ball-youman)

• Sprinting back on defence

**Game Modifications**

Use a smaller ball:

• Baskets should be 2.60 metres to 2.74 metres high;

• Play more 1-on-1, 2-on-2, 3-on-3, 4-on-4 as this allows more touches of the ball then 5-on-5;

• Play player-to-player defence;

• Everyone should play every position;

• Allow some violations to occur, but explain the rules;

• Equal playing time;

• Adjustments to the court size, substitutions and the length of the game;

• Early in this stage it is not recommend that a visible score be kept. Progress to keeping score towards the end of the stage;

• Rules that encourage the use of the basic skills over-elaborate tactics and strategies are recommended. For example, whoever rebounds the ball must advance the ball up the floor.

**Developmental Characteristics**

*Physical Characteristics - Basic Characteristics*

• Strength training using the athlete's own body weight should be used. Hopping and bounding can also be safely implemented;

• Speed can be trained during this stage, and this should be done during the warm-up phase of practise sessions;

• Stretching exercises should become a routine. Dynamic stretching should become a routine during the beginning of this phase, while PNF (proprioceptive neuromuscular facilitation) can be

implemented towards the end of the phase;

• The central nervous system (CNS) is almost fully developed.

*Physical Characteristics - Performance Capabilities*

• Speed, agility, balance and coordination are still improving rapidly, and are fully trainable;

• A change in the center of gravity, length of limbs and core strength will determine the content of training.

*Physical Characteristics - Implications for Coaches*

• A combination of biological and chronological age should be used to group players;

• Short duration of anaerobic (short bursts of energy) activities is recommended;

• Use warm up to further develop CNS activities.

The Five S's of Training and Performance during the Basketball Skills Stage:

Since this is the major SKILL learning stage, motor development should be emphasised. Accelerated adaptation to motor skills and coordination development, is from 8-11 years for females and from 9-12 years for males. It should be noted that this is a sensitive period. If the fundamental and basic sport specific skills are not established before ages 11 and 12 respectively, then athletes may not reach their optimal or genetic potential. Skills will always be trainable but
skills trainability gradually declines after 11 and 12 years of age. It should be developed before the onset of the growth spurt.

Stamina, Strength, Speed and Suppleness should be further improved by well sequenced training. Although there is less interference between the various training adaptations during FUNdamental and L2T two stages of training, a well laid-out training, competition and recovery program will optimize the various training effects.

Training competition ratios: 75 percent training to 25 percent competition ratio is recommended by experts during the L2T stage (4:1 training competition ratio vs. the 1:1 ratio that prevails presently). More training time allows for development of fundamental movement
skills, fundamental sport skills, fundamental basketball skills, decision making and physical preparation. The competition review will address this topic. At this stage, players should train in game like situations in the form of short scrimmages or competitive games and drills. Athletes/teams in the L2T stage following the 4:1 practice to competition ratio will be better prepared for competition in both the short and long-term, than players who focus solely on competition and winning.

*Mental and Cognitive Development - Basic Characteristics*

• Athletes are excited to be participating;

• Athletes are eager to perfect skills.

*Mental and Cognitive Development - Performance Capabilities*

• Players have a strong fear of failure;

• Individual and specific direction and structure in the learning process is required. A variety of methods to measure success is important to maintain motivation.

*Mental and Cognitive Development - Implication for Coaches*

• Create optimum learning environment, match skill and drill levels;

• The coach's ability to demonstrate specific skills is important;

• Positive reinforcement is imperative.

*Mental and Cognitive Development - Psychological Skills*

• Players have the ability to recall specific information from memory;

• Players have the ability to use knowledge to interpret and draw conclusions;

• Players must feel it is OK to make mistakes. They cannot be afraid to try something for fear of failure;

• All players must learn to become team players.

*Performance Indicators for Psychological Skills*

• The player demonstrates the ability to absorb and apply coaching information to deal with a variety of situations;

• The player demonstrates ability to perform as a team player;

• Emphasis should be on learning and performing to the best of ability - not on winning.

*Emotional Development - Basic Characteristics*

• Players can accept responsibility;

• Players enjoy cooperation both with coach and teammates.

*Emotional Development - Performance Capabilities*

• Values and attitudes are created and reinforced by the group;

• Some players may be less responsive due to a fear of failure.

*Emotional Development - Implications for Coaches*

• Coach must provide strong direction. Supervision should be exercised by coach;

• Coach should gradually give players responsibility;

• Coach must not play favourites. Early matures often become leaders and (written negatively)    excel in physical performance. It is important to treat all players as equals.

*Emotional Development - Ancillary Capacities*

• Players can learn about communication skills and values such as respect, honesty, and integrity values in dealing with others;

• Players begin to understand and apply, in conjunction with the coach:

      ° Warm up and cool down

      ° Hydration

      ° Nutrition

      ° Respect for environment and equipment

      ° Health awareness

      ° Recovery and regeneration

**Train to Train Stage (T2T) - (Ages 11-15 females, 12-16 males)**

*Train to Train, Phase 1: Females 11-13 and males 12-14*

      The physical capacities that need to be trained are now completely dependent on the developmental age of the individual. Coaches must be aware of the differences in maturation rates and allow for appropriate accommodation. The goal at this stage is to continue to build the athletic base. Many skills will be introduced here and these skills will be emphasized. Avoid the

temptation to compensate for the lack of skills with higher level tactics. The use of zones and presses will be introduced in the second phase, at the end of this stage, when players have acquired a complete grounding in the basic skills. We want to develop basketball players as

opposed to positional players. This stage can still be an entry level for many players. Recognize this fact and be aware of the stage below in order to assist the athlete in accelerating his/her learning.

*Points of Emphasis*

• Fundamental Movement Skills

      • Refine skills previously identified in FUNdamentals

• Fundamental Skills - Ready Stances - Without Ball

- Develop and refine
- Refine defensive stance
- Vision - play with eyes up, scanning
- Fundamental Skills - Ready Stance - With Ball
    - Refine footwork-pivoting (front and reverse), using both feet for pivots
    - Early decision making before the catch
    - Refine movement with ball - jump stops, stride stop
    - Ball handling - becoming comfortable with the ball, ball protection, vision, handling ball under defensive pressure and refining ball movements
- Dribbling/Ball Handling
    - Expand the dribbling repertoire
    - Refine and develop speed, control, change of direction, retreat, and change of pace with the right and left hand
    - Refine and develop the concept of dribbling against a guided defender
    - Making proper reads and reactions
    - Refine ability to handle the ball while scanning the floor
- Passing and Catching
    - Expand the passing repertoire. Add variations to the basic passes (ex. chest, bounce, overhead, baseball)
    - Increasing the speed at which the ball can be passed and received
    - Developing ball and pass faking concepts
    - Passing and catching in guided defensive situations
    - Making proper reads and reactions
- Shooting
    - Review and refine the BEEF (balance, elbow, eyes, follow through) concepts of shooting
    - Execution of the "perfect" form shooting
    - Develop shot-ready techniques - catch and shoot from a pass in a variety of directions
    - Develop catch and shoot off a dribble - in a variety of directions

- Review and refine a layup repertoire (ex. baby hook, reverse, right hand, left hand, power, zigzag)

- Develop free throw shooting routine

- Shooting and lay-ups with a guided defender and making the proper reads

- Expand shooting repertoire (ex. off dribble, off catch, different angles, different speed, range). The emphasis should be on the above progressions

- Getting Open
  - Using change of direction, change of pace, sealing and a teammate
  - Read and react to guided defence
  - Move to the pass
  - Get open in a variety of positions (ex. wing, post, guard, top, baseline)

- Developing 1-on-1 Skills
  - Squaring to the hoop aggressively to be a scoring threat
  - Develop a one-on-one repertoire (ex. off dribble, jab fakes, shot fakes, combinations)
  - Read and react to guided defence
  - Play from a variety of positions

- Multi-Player Manoeuvres
  - Develop and refine
  - Pass and catch
  - Penetration principles
  - Pick (ball screen)
  - Screen away from the ball
  - Playing without the ball
  - Read and react to guided defence
  - Play from a variety of positions
  - Emphasize ball movement (reversals)

- Transition Offence
  - Develop the concept of lanes and outlets
  - Recognize advantages while attacking the basket
  - Read and react to guided defence

- • Emphasize all players playing all positions
- • Emphasize ball movement
- • Defence
  - • Introduce the concept of ball, ball-side and help-side defence
- • Defence on the Ball
  - • Refine defensive stance against an offensive player in triple threat with emphasis on ball pressure
  - • Develop and refine maintaining the gap and change of direction against a ball handler with emphasis on ball pressure
  - • Introduce and develop the concept of contesting a shot, pass and dead ball
  - • Introduce the concept of influencing (perimeter and post)
  - • Introduce and develop defending picks (on the ball screens)
- • Defence off the Ball
  - • Refine and develop stance - open and closed
  - • Introduce the concept of influencing (perimeter and post)
  - • Introduce and develop denial - open and closed
  - • Introduce and develop help, rotate and recovery
  - • Introduce and develop defending off the ball screens
  - • Moving from one defensive stance to another (ball stance to help stance, help stance to deny stance, etc)
- • Rebounding
  - • Introduce and develop skill of defensive rebounding (boxing out)
  - • Introduce and develop the skills of offensive rebounding
- • Transition Defence
  - • Introduce and develop the concept of team defensive balance (offensive rebounding and safeties)
  - • Defending the basket, ball and lanes in transition
  - • Sprinting to recovery

*Playing Principles - Offensive Concepts*
- • Reading and reacting to the defence
- • Playing 1-on-1

• Penetration principles - using the dribble and pass wisely, movement without the ball

• Spacing of 3 to 4 metres

• Cutting - basket cuts, ball cuts and spacing cuts (replacement)

• Introduce and develop ball screen (pick) and screens away from the ball

• Emphasize ball movement (reversals) and player movement without the ball

• Rebounding

• Communicate with teammates

*Playing Principles - In Transition*

• Attacking from the middle

• Outlet passes, catching and passing the ball to the person ahead who has an advantage

• Running fast and wide

• Communicate with teammates

*Playing Principles - Defensive Concepts*

• On the ball strategies - staying in stance; staying between the person being guarded and the basket (maintaining the gap), maintaining ball pressure, defending picks

• Off the ball strategies - staying near the player being guarded but always seeing the ball, using the defensive triangle, defending screens

• Concept of influencing (perimeter and post)

• All players have a responsibility in team defence

• Challenging all shots

• Rebounding

• Communicate with teammates

*Playing Principles - In Transition*

• Defending the basket, defending the ball and defending a player

• Communicate with teammates

*Technical Skills - Offence*

• 1-on-1 attack to finish/to set up team-mate

• Expand on reading defender - with and without ball

• Post play - sealing

• Getting open

• Passing-entry versus pressure, post entry

• Expand ball reversal

• Pass, cut, replace

• Concepts of passing angles/lanes and create lanes

• Purposeful and efficient dribble

• Introduction of shooting footwork (right, left, etc)

• Introduction: shot selection and time/score

• Offensive spacing: 3-point line - balance out

• Rebound - follow shot

• Making use of 3-on-3 to demonstrate and practice these concepts

*Technical Skills - Team Defence*

• Introduce and review defensive stances - ball, deny and help

• Individual "D" to team "D"

• Concepts - deny cutter, shift/react to the ball

• Communicate your actions (cue words - ex. ball, shot, help, etc)

• Protect basket - take a charge

• Attack penetration with help

• Refine - see the ball

• Challenge shooter under control: close-out, contest

• Concept of recovery

• Footwork: shuffle to run (help)

• Full court 1-on-1 pressure

• Rebound (contact)

• Play "D" without fouling

*Technical Skills - Transition Defence*

• Floor recognition

• Stop advancing of ball

• Protect basket

• Defensive responsibility

° Communicate

° Definition of roles

° Ball, basket

• Sprint to passing lanes

• Sprint to half court and turn to face oncoming ball

• Stop ball, pick up checks

*Game Modifications*

• No zone defence or zone presses;

• Practice to game ratio of 4:1;

• Use a number 5 or 6 ball;

• Baskets should be 10 feet;

• Train by playing 1-on-1, 2-on-2, 3-on-3 so players can touch the ball more.

*Train to Train, Phase 2: (13-15 females, 14-16 males)*

*Points of Emphasis*

• Fundamental Movement Skills

  • Refine same skills as FUNdamentals stage

• Fundamental Basketball Skills - Basic Motor Movement Skills - Without Ball

  • Stances - offensive ready, defensive

  • Movement - starting, stopping, change of direction

  • Footwork - Agility, Balance and Coordination (ABC's)

  • Vision - scanning

• Fundamental Basketball Skills - Basic Motor Skills with Ball

  • Stances - triple threat, ready, shot ready

  • Footwork - pivoting, balance, explosions

• Dribbling - Stationary and Moving

  • Push-Pull

  • Behind back

  • 2 ball

  • Maravich drills

  • Inside out to cross over

  • Between legs

  • Stutter

  • Hop back - to go and to shot

  • Spin

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- • Combination moves
- • Off hand
- • Dribbling versus pressure
- • Passing and Catching
  - • Outlet passes
  - • Full court passes
- • Shooting
  - • Form shooting, wall shooting
  - • Ready to shoot
  - • Shot preparation
  - • After a cut into 1,2 footwork
  - • Jump shot
  - • 3-point shot
  - • Free throws
  - • Under pressure
- • Lay-Up Skills
  - • From 1 foot
  - • From a pro hop/power layup (2-foot take off)
  - • Reverse
  - • Decision on type of finish
- • Perimeter Movement with Ball (1-on-1)
  - • Shot fake and go
  - • Shot fake and cross-over
  - • Shot fake and pull-up
  - • Jab step and shoot
  - • Jab step and go
  - • Jab step and cross-over
  - • Combinations of the above
- • Perimeter Movement without the Ball
  - • V-cut
  - • L-cut

- • Blast cut

- • Backdoor cut

• Post Movement without the Ball

- • Sealing

• Post Movement with Ball

- • Drop step

- • Gather step

- • Turnaround Jumper

• Introduce Screening Situations late in the stage

- • Cross

- • Down

- • Ball

• Defensive Stance on the Ball

- • Ready, point, dead

- • Run-glide-run

- • Hip turns

- • Help

- • Deny

- • Ball influence

- • Guarding screens - "don't get screened"

- • Rebounding

- • Box outs

- • 2 hands on the ball

- • Outlet the ball/break out dribble

*Playing Principles - Offensive Transition*

• Secure possession

• Attack the basket

• Outlet or breakout dribble

• Space the floor vertically and horizontally

*Playing Principles - Defensive Transition*

• Box-out

- Keep ball out of middle of floor

- 1st man back defends basket

- Stop ball

- Match up with checks by communicating with teammates

*Playing Principles - Offensive Concepts*

- Attack the basket

- Spacing is paramount

- Read the defence, read your teammates

- Be patient

- Be quick but don't hurry

- Penetration and Kick Principles

    - Pushing and pulling off penetration

- Use of Dribble

    - To advance the ball

    - To attack the hoop

    - To improve passing angles

    - To get the ball out of trouble

- Defence in the Half Court (man to man)

    - Stop penetration

    - Force (funnel) the ball

    - Turn the ball

    - Help side must see ball and man

    - Help the helper (help, fill and rotate)

    - Challenge all shots

    - Defend all screening situations (late in the stage)

*Technical Offence*

- Communication: verbal/non-verbal cues

- Expand on reading the defender

    ° On/off ball

    ° Back cuts

    ° Reading overplays

       ° On passing to post

• Screen on ball

• Pick and roll or pick and cut

• React to defence

• What do other players do

• 5-on-5 offence

• Concept based - attack the basket, spacing, penetration principles, passing and cutting and sealing

• Options and sequencing - spacing and balancing (3-point line)

• Screen options introduced late in the stage

• 1-on-1 - Shooting

     • Decisions on second line of "D." Decision when meeting second line of defence (ex. pull up, floater, tear drop, etc)

     • Shooting off screen

     • Concept of freeing shooters - off screens: screen, shot and pass

• Team Defence

     • Communication: cues and team awareness

     • Talk to teammates

     • Rotation - help and recovery

• Post "D" specific

     • Screens - on and off the ball

     • Hedge and recover, stab and retreat

     • Concept of influencing (perimeter and post)

• Improve or Refine

     • Concept of area coverage: Progression

     • Emphasis on not reaching and controlled defensive body position

     • Guarding ball in post

     • Gap as related to quickness and skill i.e. good shooter, play tight

     • Trapping, double team, run & jump

     • Rebounding off rotation

     • Understand offensive abilities

- Offensive Transition
    - Define responsibilities
    - Rebounder, outlet, 2nd outlet
    - Anticipate possession
    - Decision making
        ° Individual strength
        ° Advantages: time and score
    - Advancing ball: pass, dribble
- Responsibilities after transition ends
    ° Balance out and spacing - 3-point line
    ° Set up offence
- Defensive Transition
    - Communication
        ° Awareness
        ° Pointing
    - Guarding/covering the entire court
        ° Stop ball earlier
        ° Rebounder
        ° Deny outlet
        ° Defend lanes (ball u man)
    - Safety - 1st player back
        ° Communicate "traffic controller"
- One Attack Concepts

    Zone offensive and defensive concepts plus zone press and press break concepts will be introduced late in this stage after the players have acquired the necessary player to player defensive and offensive concepts. Coaches are reminded that the goal is to develop "global
basketball players" rather than positional players.
    - Using player-to-player concepts to attack zone
    - Handle double teams, run & jump
    - Passing to enable offensive efficiency

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- Expand use of dribble
  - ° Advance ball, pass to post, improve angle, penetrate, retreat, control
- Zone Offensive Concepts
  - Using player-to-player concepts to attack zone (proper spacing, penetration principles, cutting, sealing, picks and screens)
  - Passing to enable offensive efficiency (ball reversal, fakes)
  - Introduce and develop specific zone concepts (overload, flatten the zone, use of gaps and seams)
- Zone Defensive Concepts
  - Introduce zone defensive concepts as opposed to zone defensive systems

Press and Press Breaks
  - Introduce and develop pressing pick up points
  - Introduce trapping concepts (pressure defence)
  - Introduce concepts to breaking traps and pressing defences (press breaks and pressure releases)

*Game Modifications*

Regulation game (this includes the introduction of the shot clock) with the following modifications:

1. The aim is to ensure that athletes are able to use the basic skills in a competitive environment. When this aim is achieved coaches can then move into more complex tactical concepts such as zone defences and presses;

2. Coaches need to be aware that during this stage there is a great variation in physical ability due to maturation rates. This will greatly effect the decision that a coach makes in competitive situations. i.e. who is matched up against who in a game and what tactics you employ?

3. Coaches need to ensure that late maturing children entering the sport late are given opportunities to play;

4. Use a number 5 or 6 ball;

5. A smaller court may be considered.

**Developmental Characteristics**

*Physical Characteristics - Basic Characteristics*

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• Significant changes in muscle, bone and fat tissue;

• Females begin their growth spurt between the ages of 12.5 and 14 years, while males begin between 12.5 and 15;

• The onset of menarche for females can be anywhere from 10-16 years;

• Smaller muscle groups become more developed;

• Various parts of the body are not growing at the same rate;

• Stamina can be developed here through the use of aerobic drills by using the full length of the court. It should be noted that it is sometimes difficult to implement continuous running programs due to a lack of motivation on the part of the athletes;

• Strength training using the athletes' body weight should be continued.

*Physical Characteristics - Performance Capabilities*

• Early in this phase, females are faster and stronger than males. Later in this phase males become faster and stronger;

• After the onset of menarche, iron levels of females should be monitored regularly. Watch for fatigue, dizziness, irritability, headaches and dry skin;

• Speed, agility, balance and coordination are still improving rapidly, and are fully trainable;

• A change in the centre of gravity, length of limbs and core strength will determine the content of training;

• Oxygen transport system is still developing and aerobic endurance continues to increase.

*Physical Characteristics - Implications for Coach*

• Monitor training carefully and individualize the content of training to ensure adaptation;

• Chronological age is not the most appropriate way to group players. Biological age should be used;

• Situations which cause anxiety about sexual development should be avoided;

• All basic skills need to be developed. Athletes should learn how to train during this phase;

• Some of the previously learned skills will need to be refined (relearned), since the growth of limbs will impact techniques;

• Short duration of anaerobic activities is recommended;

• Individualized training to meet the developmental needs of the athlete;

• Use warm up to further develop CNS (Central Nervous System) activities and energy systems.

*Physical Capacities*

The Five S's of Training and Performance during the Training to Train Stage:

Stamina - the onset of PHV contributes to accelerated adaptation in the aerobic system. This is the time at which the athlete's aerobic system is best trained. The 11-15 year old female and 12-16 year old male athletes should be grouped during training according to biological maturation rather than chronological age, since young adolescents may be 4-5 years apart within each chronological age group.

Physical training should be organized so that early, average and late maturing athletes each have their own training group. With the onset of the growth spurt a training priority should be the aerobic system using different activities. Although the aerobic system is a priority, strengths, speed, skill and suppleness should be developed further/maintained. This is building the foundation of the aerobic base of a basketball player.

Measuring PHV - In order to estimate PHV, the University of Saskatchewan has developed a PHV calculator which requires the athlete birth date, height, sitting height and weight. The calculator provides protocols for measuring and can be used to predict adult height. See the following webpage: http://athena.usask.ca/growthutility/phv_ui.cfm?type=1

Strength - the peak of the growth spurt (defined below) is the reference point for implementation of strength training programs. The sensitive periods of accelerated adaptation to strength training will occur towards the end and immediately after PHV for females. The sensitive period for males will most likely occur 12-18 months after PHV for males. Coaches should monitor their players for the growth spurt of the PHV and the peak of PHV. These measurements accurately indicate the proper time to implement free weight programs. Standing height, sitting height and arm span should be measured quarterly after the onset of the growth spurt.

Proper weight training technique should be introduced during the "skill hungry years." This will prevent injuries from improper lifting techniques. Appropriate progressive overload procedures should be observed when implementing such programs. The training of core strength should always be a priority when training athletes of any age.

Speed - the second speed window for accelerated adaptation is 11-13 years of age for females and 13-16 years for males (Viru, 1995; Viru et al., 1998 and 1999). Although CNS training is still very important, anaerobic training should be introduced to females during the first
part of this stage and to males during the second part of the stage. Proper progressive overloading should be ensured. Linear, lateral and multi-directional movement speed should be trained by proper sequencing of speed work with other training activities.

Speed work should be done all year round regardless of the different phases and objectives of the annual cycle. It should be done at the end of the warm up, when there is no metabolic or nervous system fatigue present and the training load should be very low (ex. speed layups from half, no more than 10 seconds of speed work).

This speed work should be in the form of anaerobic alactic power and capacity. This is energy system training (versus CNS training) and the duration of the intervals should be between 5 to 15 seconds. Agility, quickness and change of direction should be trained at the end of the warm up, avoiding accumulation of fatigue.

Skill - due to the rapid growth of athletes during adolescence, including changes in the centre of gravity, length of the arms, trunk and legs, movement skills and fundamental basketball skills should be revisited. Coaches should be patient with the players during and immediately after their growth period because different parts of the body grow at different rates. This may have a temporary adverse effect on an athlete's movement and technical skills.

Suppleness - flexibility should be monitored carefully in this stage. Static stretching and Proprioceptive Muscular Facilitation (PNF) should be used to maintain or improve flexibility. The scheduling of a stretching session that is separate from other training activities is recommended during this and the next stage of athlete preparation.

Dynamic mobility and pre-habilitation (exercises that prevent injury) routines should replace static stretching in warm ups.

Flexibility training should be done 5 to 6 times per week if flexibility needs to be improved, and 2 to 3 sessions of training each week to maintain current flexibility levels.

Special attention should be given to flexibility during this stage due to sudden growth.

Training Competition Ratios - Approximately 66% training to 33% percent competition ratio (3:1 training to competition ratio) is recommended by experts during the Training to Train stage. These percentages vary according the individual/team needs. Emphasis is on individual improvement over team improvement. Again, players/teams undertaking this type of preparation will be better prepared for competition in both the short and long term than players who focus solely on games. These training to competition ratios will be further evaluated by the competition review working group.

*Mental and Cognitive Development - Basic Characteristics*

• Players develop a new form of egocentric thought. Much emphasis is placed on self-identity;

• Players are eager to perfect skills.

*Mental and Cognitive Development - Performance Capabilities*

• Decision making through more complex technical training should be introduced;

• Athletes have a strong fear of failure;

• Individual and specific direction and structure in the learning process is required. A variety of methods to measure success is important to maintain motivation.

*Mental and Cognitive Development - Implication for the Coach*

• Create optimum learning environment, match skill and drill levels. Introduce simple coping strategies, concentration and mental imagery;

• Decision making on tactical and strategic solutions should be based upon the skill level of the athlete;

• The coach's ability to demonstrate specific skills is important. If the coach cannot demonstrate the skill, it is important to find someone who can - perhaps a player;

• Audio/visual material and video feedback will help to create mental images;

• Positive reinforcement is imperative.

*Mental and Cognitive Development - Psychological Skills*

• Players have the ability to set long term, short term and daily training goals, which are to be personally established and progressively monitored;

• Players realize that there are a variety of procedures that can be used to achieve activation controls (ideal performance state) and that they have the ability to use them appropriately;

• These include: breathing techniques, visualization and concentration techniques;

• Players begin to understand that they must be motivated, self disciplined and dedicated to reach their full potential;

• A player's competitive spirit begins to develop. They must learn to be positive, hard working and confident;

• Players begin to maintain balance and focus while under varying amounts of pressure;

• Players must feel as though it is okay to make mistakes. They cannot be afraid to try something for fear of failure;

• Players must be given opportunities to lead;

• All players must learn to become team players.

*Mental and Cognitive Development - Performance Indicators for Psychological Skills*

• Player demonstrates ability and understanding of what constitutes acceptable individual/personal best effort capabilities;

• Player begins to use goal setting, visualization imagery, mental toughness strategies and emotional control strategies;

• Player demonstrates the ability to absorb and apply coaching information to deal with a variety of situations;

• Player demonstrates ability to analyze their own levels of performance and effort. Demonstrates ability to perform as a team player;

• The athlete is able to maintain a positive self-concept through all aspects of training and competition;

• The athlete understands that the coaching emphasis is on learning and performing well as opposed to "winning."

*Emotional Development - Basic Characteristics*

• Players are influenced significantly by their peers;

• Players can accept responsibility;

• Players enjoy cooperation;

• Tension exists between adults and children;

• Physical, mental, and emotional maturity do not necessarily develop at the same rate.

*Emotional Development - Performance Capabilities*

• Values and attitudes continue to be created and reinforced by the team;

• Some players may be less responsive due to a fear of failure;

• Communication channels should be kept open by the adult because all teenagers need help although they often do not recognize the need for it;

• Social activities are important events for this age group.

*Emotional Development - Implications for the Coach*

• The coach must provide strong direction and supervision;

• The coach must have open communication with the athletes;

• The players need role models;

• The coach is usually more readily accepted than other adults and should endeavour to keep the lines of communication open;

• The coach must not play favourites. Early matures often become leaders and excel in physical performance. Everyone must be treated as equals.

*Emotional Development - Ancillary Capacities*

• Athletes must have a passion for learning;

• Athletes can learn about having healthy lifestyles;

• Athletes can learn about communication skills such as respect, honesty and integrity in dealing with others;

• Athletes can be positive role models and set good examples through their actions;

• Athletes are expected to understand:

    ° Warm up and cool down

    ° Hydration

    ° Nutrition

    ° Respect for environment and equipment

° Health awareness

° Recovery and regeneration

° Taper and peak

***Train to Compete Stage (T2C) - (Ages 15-18+/- females, 16-18+/- males)***

During the Train to Compete stage, high intensity individual and sport-specific training is provided to athletes year round. The major objective of this stage is to learn to compete under any kind of circumstance. Athletes who are now proficient at performing both basic and sport-specific skills, learn to perform these skills under a variety of competitive conditions during training. Consideration must also be given to athletes who are late entering into the sport. A coach must be aware that these athletes may be at the Train to Compete stage in regards to physical skills but at lower stages in terms of basketball skills. With proper coaching these late entry athletes can be brought successfully into the basketball system. Special emphasis is placed on optimum preparation by modelling training and competition. Fitness programs, recovery programs, psychological preparation and technical development are now individually tailored to a greater degree. This emphasis on individual preparation addresses each athlete's individual strength and weaknesses.

At this stage of development the serious athlete will be focused and determined to be the best player he/she can become. Athletes need significant amounts of technical and tactical feedback if they are to properly develop skills. Athletes must train at a high level of intensity and must be challenged to improve by the coaching staff.

Fundamental Skills:

• Dribbling - Stationary and Moving

    • Against disadvantage situations (2-on-1, 4-on-2, 4-on-3)

• Passing and Catching

    • Post entry passes (dribble and stationary)

    • Skip passes

• Shooting

    • After a curl cut

    • After a fade cut

    • 3-point shot

- Jump shot off the dribble
- Lay-up Skills
    - Making shots with contact
    - Creative finishes
- 1-on-1
    - Attacking one on one - sweeps, cross over
    - Control one on one - jab series, shot fake
    - One on one off the dribble
    - Hop back
    - Combination moves
- Post Moves (taught towards end of the stage)
    - Jump hook
    - Up and under
    - Double pivots
    - Face up and go
    - Short corner shots, cuts
    - High post shots, cuts
    - Crab dribble series
- Perimeter - Movement without the Ball
    - Pass into post and relocate
    - Blast cut
- Movement without the Ball - Post
    - Make contact defender's body
    - Feet active, arms high
- Introduce Other Screening Situations
    - Flare
    - Staggered
    - Double
    - Pin
- Defensive Stance on the Ball
    - Closeouts

• Post defence - footwork (fronting, staying ball side, movement around offensive player)

• Rebounding

• Breakout dribble

*Playing Principles - Offensive Transition*

• 1st post goes to front of the rim

• Trail post goes to the 3-point line

*Playing Principles - Defensive Transition*

• Refinement of previous skill sets

*Playing Principles - Conceptual Offence*

• Spacing is paramount (3.5 metres to 4.5 metres) - allow for penetration

• Play off teammates penetration

• Look for cutting opportunities

• Look for screening opportunities

• Look for opportunities to improve passing angles and make use of relay passes

• After screening move in the opposite direction of the person being screened for (2nd cutter)

• Be patient

• Be quick but don't hurry

*Playing Principles - Intelligent Movement is Based on:*

• Players' ability to read and react to defensive positioning

• Location of the ball

• Players should not watch ball until ready to receive it-they should watch their defender

• Movement of defence

*Playing Principles - Penetration and Kick Principles*

• Move and slide to an open area on penetration

• Baseline drive-baseline drift, or fill in behind driver

• Middle drive-slide to optimum position

• Penetrate pass pass

• Post movement off penetration

*Playing Principles - Reading Screens*

• Being patient and make correct reads (showing hands when ready for ball)

• Using of second cutter

*Playing Principles - Press Break*

• Spacing

• 3 passing options (middle, back, sideline)

• Working against double teams

• Vertical attack - throwing over the top

*Playing Principles - Principles of Zone Offence*

• Attacking GAPS of the zone

• Taking defence away from their positions

• Ball reversals

• Use of the high post

• Posts must look for screening, sealing and exit cut opportunities

*Playing Principles - Defence in the Half Court - Player-to-Player*

• Attack penetration (help principles)

• Keep the ball out of post (both low and high)

• Defend all screening situations

• Deny post position

• Deny ball reversal

*Playing Principles - Principles of Zone Defence*

• Communicate on every pass

• Everyone moves on every pass

• Hands up, take up space

• Keep ball out of high post

• Proper spacing (never 2 players guarding 1)

*Strategic/Tactical Skills - Offence Communicate - 5-on-5*

• What is the point of attack?

    ° Mismatches - attack the weakness of a defender

    ° Attack the weakness of the defence

    ° Take advantage of the team's strengths

    ° Isolation - take advantage of a player's strength

- Role identification
- Time/score
    - ° Specific end-of-game situations
    - ° Shot selection
- Special plays
    - ° Quick hitters
    - ° Sideline out of bounds (SLOB), baseline out of bounds (BLOB)
    - ° Foul line
- Zone attack concepts
- Prepare for junk defence
    - ° Box + 1, triangle + 2
- Offensive rebounding
    - ° Establish plan on who will rebound
    - ° Offensive block out, spin, etc.
- Emphasize possession of ball and value of it
- Flow and the awareness of the shot clock
    - ° Early clock
    - ° Mid clock
    - ° End of clock

*Strategic/Tactical Skills - Defence Communicate*

- Expansion and repetition of previous stage
- Recovery strategies
- Rebounding emphasis in all areas and defensive breakdown situations
- "Complete the defensive play" - that is, putting it all together
- Multiple defensive programs
    - ° Combo "D", zone presses

*Strategic/Tactical Skills - Transition Communicate- Principles*

- Decision making
    - ° Time/score situations
    - ° Player personnel
    - ° Advance ball

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- Advantages & disadvantages
- Angles
    - Tempo
- Roles
    - Runners
    - 2nd outlet - new roles if 2nd outlet is used
    - Trailers - where do they go?

*Strategic/Tactical Skills - Transition Offence*

- Spacing/balancing out
- Post/perimeter into offensive positions
- Ball reversal - half court reversal

*Strategic/Tactical Skills - Transition Defence - Communication*

- More specifics
- Cue/action words - expand to full court
- Awareness of teammates - Where? Responsibilities?

*Strategic/Tactical Skills - Transition Defence - Timing*

- Knowing when to switch
- Depends on situation

*Strategic/Tactical Skills - Transition Defence - Options within Transition*

- Trapping - recovery
- Forcing
- Turning
- Run + jump
- Influencing - who has ball and where?
- Playing out of a scramble/disadvantage

**Developmental Characteristics**

*Physical Characteristics - Basic Characteristics*

- The circulatory and respiratory systems reach maturity;
- Increases in height and weight slow, and stabilization occurs in the muscular system;
- Skeletal maturation occurs in females and continues in males;

• By age 17 females have reached adult proportions whereas males do not reach such proportions until several years later.

*Physical Characteristics - Performance Capabilities*

• Circulatory and respiratory systems are generally capable of giving maximum output;

• Muscles have grown to their mature size but strength continues to increase towards its peak in the late twenties;

• Connective tissues are still strengthening;

• Females generally gain more weight than males during this phase.

*Physical Characteristics - Implications for the Coach*

• Aerobic and anaerobic systems can be trained for maximum output. Full sport specific energy system training should be implemented;

• Strength training can be maximized to improve overall strength development. Neuromuscular training should be optimized during this stage;

• Progressive overloading in training should be continued;

• Coaches should be aware how to deal with the subject of weight gain in an appropriate manner;

• Athletes should learn how to compete including all technical, tactical and ancillary components.

*Physical Characteristics - Physical Capacities*

The Five S's of Training and Performance during the Training to Compete Stage:

Stamina - 8-12 weeks of training are needed to induce a significant improvement of the aerobic system. This should be done during the General Preparatory Phase (GPP). Training should be done 3-4 times per week using a variety of training methods in addition to on court practices. These training methods are:

Long Slow Distance: When using this for improvement, the exercise should last between 30-60 minutes at 70% of maximum heart rate.

Fartlek: When using this method, the duration of the exercise should be 30-45 minutes, the whole time alternating 3 minutes of "slow jogging" with 3 minutes of intense training.

Interval training: This is work or training followed by a prescribed period of rest.

Ultra-short interval training: This form of training is based on the principle that suffi ciently short intervals of intense work do not produce lactic acid accumulation. It is appropriate for developing alactacid and aerobic endurance and provides the opportunity for specific skill training at competition intensity.

Strength - Strength training at this stage should be monitored very closely as athletes' bodies are changing rapidly. Also for late maturing athletes, coaches should refer to the T2T stage strength training as these athletes are still the sensitive periods of strength trainability.

Diagnostics/testing will determine the content and extent of the strength program. At this stage this should be fully individualized. 2-3 sessions should be conducted during the pre-season and 1 or 2 in-season for maintenance. Core and hamstring maintenance should be done 3 times a week. Core strength training should be a priority and should be adjusted to the athletes' needs.

Speed - Fatigue interferes with speed development. Speed should be trained at the end of the warm-up when there is no metabolic or nervous system fatigue present at every single training session. Speed training should be properly periodized within the annual training program. The type of speed that is required in basketball involves acceleration, change of direction and faking or deceiving without the ball. Short distances of 3-10 metres should be used when training speed including changing direction (linear and lateral) and chaotic speed. Two important details of speed are proper running technique and speed dribbling with a basketball.

Suppleness (Flexibility) - Young athletes experience sudden increases in height and body mass, therefore it is important that flexibility be trained and monitored closely and regularly.

In principle, athletes are now fully trainable in all of the Five S's of training. It is helpful to use performance tests (performance, laboratory or field tests) to identify individual needs of athletes. Identifying the strengths and weaknesses of the athletes (physical, technical, tactical, mental and ancillary capacities) will help decision making regarding training priorities.

Training Competition Ratios - The training to competition and competition specific training ratio now changes to 3:1. 40% of training is devoted to the

development of technical and tactical skills, and fitness improvements, and 60% is devoted to competitions and competition-specific training. These training to competition ratios will be further evaluated by the competition review working group.

Performance Indicators - Athletes must have sport-specific training 6 times per week. The importance of individualized (this should include offensive and defensive skills) and small group work (by position and with players from different positions) is crucial to the continual development of the athlete. Individualized fitness and mental training must also be included.

There are a number of tests that can be used to measure an athlete's level of fitness. These include:

1. Vertical jump and standing long jump
2. Beep tester (Leger Boucher Test)
3. Bridges
4. Sit and reach
5. Speed and agility tests
6. Chin ups/push ups/bench press

Athletes also need to have their fundamental movements accessed before beginning strenuous training programs. Proper technique in single leg/double leg squats, lunging and balance for example, are crucial to prevent injuries; foot, ankle, knee, hip shoulder and spine alignment should be monitored and treated if necessary.

*Mental and Cognitive Development - Basic Characteristics*

• Generally by age 16, the brain has reached its maximum size but continues to mature neurologically for several more years;

• Critical thinking is well developed during this phase.

*Mental and Cognitive Development - Performance Capabilities*

• Players can cope with multiple strategies and tactics, particularly during the end of this phase;

• The capacity of self-analysis, self-correction and correction by the coach are developing.

*Mental and Cognitive Development - Implications for Coach*

• Coaches should encourage the refi nement of all technical and tactical skills;

• Decision-making should be developed further through technical, tactical development.

*Mental and Cognitive Development - Psychological Skills*

• Highly specific goal setting is recommended - on a team and individual basis;

• Goal setting should be reviewed and goals should be recommitted to at certain points during the season;

• Opportunities should be provided for athletes to develop and to apply effective mental management of imagery, focus control, attentional control, and activation arousal control;

• Athletes should begin to realize what their IPS (Ideal Performance State) is and how to achieve this;

• Athletes should begin to become very competitive and start to understand what this encompasses. Winning starts to become a goal but intensity and competitiveness is still the priority. Athletes begin to understand that they can compete hard against other players while maintaining friendly relationships;

• Players should be able to accept constructive criticism to improve abilities. Coaches should constantly provide feedback and help. From a female perspective, athletes will undergo physical changes. The coach can provide information and mental strategies to help deal with these changes;

• Encourage to develop self-control in highly demanding and pressure situations;

• Leaders should begin to emerge and opportunities should be provided for them to lead;

• This is the optimum time to introduce a sports psychologist.

*Mental and Cognitive Development - Performance Indicators of Psychological Skills*

• Players begin to demonstrate the application of developing personal values and mental training to enhance basketball performance in both training and competitive activities;

• Players demonstrate the ability to apply the acquired mental management tools and skills to improve performance;

• Players demonstrate ability to understand the meanings of motivation, dedication and discipline;

• Players have the ability to set realistic short and long-term goals;

• Players demonstrate the ability to use independent thinking to problem solve;

• Players demonstrate the ability to compete hard, playing to win, but keep wins and

losses introspective;

• Players demonstrate the ability to apply mental toughness strategies to overcome pressure situations;

• Players demonstrate the ability to accept and apply constructive criticism to improve performance;

• Players demonstrate ability to accept roles.

*Emotional Characteristics - Basic Characteristics*

• Peer group influence is still a powerful force;

• Players are searching for a stable, balanced self-image;

• Activities and interaction with the opposite sex are important during this phase and become a distracting influence.

*Emotional Characteristics - Performance Capabilities*

• Independent decision-making and leadership skills are becoming more developed;

• Self-concept is still very much influenced by success and failure. Coping techniques are useful;

• Male players must be aware that female athletes now face a problem of femininity versus sport development. Female players must be aware that male athletes now face a problem of relating

performance to masculinity.

*Emotional Characteristics - Implications for the Coach*

• Athletes should be given the opportunity to develop through participation in appropriate leadership or responsible role (i.e. team captain), but strong dedication and discipline must be

maintained;

• Positive evaluation of performance and positive reinforcement are imperative.

*Emotional Characteristics - Ancillary Capacities*

• Players must refine knowledge learned in the Train to Train stage;

• Players must begin to master the aspects of:

    ° Warm-up,

    ° Cool down,

    ° Hydration,

° Nutrition,

　　　　° Personal health,

　　　　° Injury prevention,

　　　　° Recovery and regeneration,

　　　　° Taper and peak,

　　　　° Integrated pre and post competition routines

　　　　° Environmental awareness

　　　　° Health awareness

　　　　° Socio-cultural

• Players must also begin to master the effects of management of media, public speaking, balance of sport and academics, and organizational skills must be introduced and refined.

**Practical Applications for the Train to Compete Phase**

The Train to Compete Stage aims:

　　　• To provide high intensity training and specificity of training all year round;

　　　• To teach players to perform under stressful, competitive situations;

　　　• To ensure that the athletes' training and competition programs and sport-specific technical-tactical activities are fully integrated with sport science and sport medicine programs;

　　　• To provide training that is team and individual oriented. There will be a significant emphasis on skill development and refinement in this phase;

　　　• Athletes begin to take ownership of their own training;

　　　• To provide sport-specific training with both physical and mental skill emphasis. Specificity is the emphasis of this stage.

*Practice/Game Modifications*

• Position-specific training;

• Emphasis of concepts, zone principles, presses and a greater emphasis on strategies;

• Players should be encouraged to work on skill development on their own time;

• The off-season training of athletes should be emphasized;

• The use of appropriate questioning and games approach in training will enhance the decision making and understanding of the game by the players.

***Learn to Win Stage (L2W) - (Ages 18-23+/-females, 18-25+/-males)***

      At this point the athlete should have a very good understanding of all the basketball specific and position specific skills that are needed to be successful and the sport-specific fitness that is required to play. The athlete should understand that a great deal of time must be spent refining these skills in order to be competitive at the highest levels. The athletes must also understand that they must train at a high level of intensity under game/pressure situations in order to continue to improve.

*Fundamental/Technical Skills*

The following skills must be reviewed, emphasized, developed and refined:

    • Dribbling

    • Passing and catching

    • Shooting form

    • 1-on-1 skills - post and perimeter

    • Cutting to get open in the post and on the perimeter

    • Setting and reading screens

    • Defensive stance and guarding the ball

    • Defensive stance away from the ball

    • Rebounding skills - offensive and defensive

*Playing Principles - Offensive Concepts*

• Transition

• Half court offence (set plays) including playing without the ball

• Concept-based offence

• Penetration and kick passes

• Setting and reading screens

• Passing and relocating

• Effective use of dribble

• Attacking pressure defence

• Principles of zone offence

• Entering ball to the post

• Post movement

*Playing Principles - Defensive Concepts*

• Organization of transition

• Half court concepts - man and zone

• Tactical considerations to defend opponents strengths

• Full court principles

• Forcing the ball

*Developmental Characteristics - Physical Characteristics*

After 10-15 years of training, it is practically impossible to increase the volume of training for an athlete. Therefore the quality/intensity and sport/individual specificity of training should be increased. Research and practical experiences have shown that for the elite athlete, the key to improvement lies in the optimal manipulation of the intensity and frequency of training.

*Physical Characteristics - Basic Characteristics*

• Physiologically the body reaches maturity during this phase;

• Final skeletal maturation occurs at age 17-19 for females and approximately 3 years later for males.

*Physical Characteristics - Performance Capabilities*

• All physiological systems are fully trainable.

*Physical Characteristics - Implications for the Coach*

• Coaches should use advanced physical training techniques and programs to ensure maximum adaptation and to minimize injuries;

• Coaches should ensure that all muscle groups and body alignments are well balanced, and complemented by optimum flexibility ranges;

• Coaches, when designing training programs, should use state of the art sport science and medicine information, including results of appropriate and timely testing and monitoring. Coaches need to stay current by accessing the most up to date information. Being involved with the provincial and national sport governing body will assist in this regards;

• Coaches should be careful to monitor training to ensure that overtraining and over-stress are eliminated;

• Regular appropriate medical monitoring should be conducted with additional blood tests for female athletes to prevent iron deficiency.

*Physical Characteristics - Physical Capacities*

The Learn to Win stage of athletic development takes the Train to Compete stage one step further.

Stamina - The aerobic system is highly fragile and its maintenance is imperative. It is recommended that 3 aerobic sessions per week should be conducted in addition to other training and competition activities to ensure the maintenance of established aerobic power and capacity. There are several ways to accomplish this:

• Long, slow distance running can be used after training sessions in order to remove by-products of training. For more information visit www.ltad.ca;

• During sport-specific training sessions aerobic drills or interval drills can be conducted;

• Ultra-short interval training;

• Fartlek or interval sessions can be implemented as complementary training sessions;

• Non-weight bearing activities such as pool (running with a belt or swimming), stationary bike, cycling, stair climbers or rowing machines can also be utilized (especially for the very tall players).

Strength - Once an athlete has learned the proper techniques for weight training the use of heavier weights will increase neuromuscular development, rather than larger muscle mass. Male and female elite players should implement Olympic-style lifting in their training regimen to enhance strength and power development. The established strength levels can be maintained for up to 10 weeks by conducting only one training session for players every 7 to 10 days, although core and upper body strength training should be performed twice per week. Now that the entire athlete's physical, technical, tactical, mental and ancillary capacities are fully established, the focus of training has shifted to the optimization of performance. Implementing longer lower intensity periods is not beneficial for elite players. Intensity and frequency are the two key factors in the preperation of elite athletes.

Speed - Speed should be trained throughout the year and throughout a player's career. The preconditions of speed training include a rested or fully recovered nervous system so speed training must be carefully planned and sequenced within the weekly

training program. Although speed is important in basketball, equally important is speed while in control of the ball.

During the competition period, the warm-up provides an excellent opportunity to fi ne tune the player's speed capacities. It makes sense to place speed training at the end of the warm up because there is no metabolic or nervous system fatigue present, thus the conditions are right to train speed.

Suppleness - Static (holding), dynamic (active or ballistic) and PNF (proprioceptive neuromuscular facilitation or contact) are the more common methods of maintaining or improving flexibility. Dynamic stretching should be a part of the stretching protocol when preparing for high-intensity practical situations like pre-training warm up and pre-game warm-ups. Static stretching should not be done as part of the warm up. Only light static stretching is recommended after high intensity training. Stretching is recommended either 2 hours before exercise or 2 hours after exercise. To improve flexibility, stretching should be done 6 times per week. Stretching should begin when light sweating has commenced.

*Physical Characteristics - Performance Indicators*

• The player demonstrates continuous progression in establishing a high level of conditioning and strength practical to the game of basketball and continues to maintain, if not optimize, this fitness, throughout a competitive career

• Testing

• Several tests can be performed to monitor team and individual fitness

• Vertical jump and standing long jump

• Chin ups/push ups/bench press

• Crunches

• Leger Boucher test

• Sit and reach

• Speed and agility tests

• Medical examinations

*Mental Characteristics - Basic Characteristics*

• Neurologically the brain matures when athletes are between 19 and 20 years of age;

• There is significant understanding and acceptance of the need for rules, regulations and structure.

*Mental Characteristics - Performance Capabilities*

• Athletes are capable of self-analysis and can correct and refine skills themselves;

• Athletes can analyze and conceptualize virtually all facets of their sport;

• Well developed information processing skills help to improve the athlete's ability to visualize verbal instructions;

• For the young adult, the rules and structure of training and competition must be perceived as clearly defined and fair.

*Mental Characteristics - Implications for the Coach*

• Optimal performance becomes the major objective, but still not at the cost of player development;

• Principles of adult learning should be implemented;

• Athletes should be involved in decision-making and in the planning of team or group activities.

*Mental Characteristics - Psychological Skills*

• Long term, short term and daily goals must be established;

• Players have the appropriate levels of maturity and knowledge in order to effectively use and apply the mental skills of imagery, focus control and activation/arousal control;

• Players need to focus on competing to win by focusing on effort and execution (process not outcome);

• Players must be able to compete under stressful and pressure situations that will occur during a game, therefore these situations must be duplicated in practice;

• Players begin to establish a balanced and stable self concept;

• Self-assessment strategies provide athlete with information on training and competition patterns;

• Players must be able to demonstrate self-control in demanding, pressure situations, therefore the use and practice of relaxation and visualization techniques are highly recommended;

• Players are ready to assume leadership roles, therefore the coach must understand this and provide leadership opportunities;

• The coaches should promote effective communication skills between players and coaches;

• It may still be difficult for some athletes to accept specific roles and these should be continuously communicated;

• Opportunities should be provided for athletes and coaches to strategize and exercise problem solving skills.

*Mental Characteristics - Performance Indicators*

• Players demonstrate the ability to effectively apply mental training skills to enhance performance by:

     ° Goal setting

     ° Focus and distraction control

     ° Activation/arousal control

     ° Emotional stability

     ° Positive self talk

     ° Imagery

     ° Self assessment

• Players demonstrate the progressive understanding of the importance of establishing strong and positive personal values to enhance their personal development;

• Players demonstrate the understanding and importance of role acceptance;

• Players demonstrate an understanding of the importance of team building to enhance individual and team performance.

*Emotional Characteristics - Basic Characteristics*

• There is a need to be self-directed and independent;

• Self-actualization and self-expression are important;

• Major decisions about career, education and lifestyles become a priority during this phase;

• Interaction with the opposite sex continues to be a priority and lasting relationships develop.

*Emotional Characteristics - Performance Capabilities*

• The athletes are ready to assume responsibility and to accept the consequences of their actions;

• Major changes in interest, hobbies and physical activities may occur during this phase.

*Emotional Characteristics - Implications for the Coach*

• Goal setting should be strongly emphasized to give definite direction and purpose to the athletes' overall development;

• The athletes need to be treated with respect, given direction and, provided with structure;

• Professional guidance should be made available to help athletes to make decisions about off-season and educational pursuits;

• Athletes must have ample opportunities for independent social interaction.

*Emotional Characteristics - Ancillary Capacities*

• All ancillary capacities learned in the T2C stage must be refined;

 ° Warm up

 ° Cool down

 ° Stretching (when, what and how)

 ° Hydration

 ° Nutrition

 ° Recovery and regeneration

 ° Taper and peak

 ° Integrated pre-game and post-game routines

 ° Health awareness

 ° Environmental awareness

 ° Socio-cultural

• Advanced ancillary capacities of time management need to be continually refined to meet the changing demands of balancing sport, education, family and professional development.

**Practical Applications for the Learn to Win Stage**

• High intensity, basketball-specific training sessions of shorter duration are recommended during this phase. Careful planning these sessions with recovery and regeneration methods will provide the training necessary for major tournaments;

• Players must have 9-15 years of training before embarking upon this stage;

• Players at this stage must be fully prepared (physically, technically, tactically, and mentally) based upon the foundation that has been built during the earlier stages;

• The concept of "more is better" is a recipe for disaster. Quality over quantity must be the goal;

• The emphasis is on attaining the player's optimal capacity and on optimal performance.

***Train to Win Stage (T2W) - (Ages 23+/- females and 25+/- males)***

All facets of the game have already been introduced, emphasized, developed and refined. An emphasis on refi nement must still exist as it will always as improvements can be made on all technical and tactical areas throughout an athlete's career. There will be many new strategies, offensive and defensive sets and philosophies that will depend on the individual coach. A successful player will be able to adapt and accept the desired philosophy.

As in Learn to Win, the athlete can still make gains in terms of strength and endurance. While in the areas of speed, skill and suppleness, training must still occur for these systems to remain effective. Without the proper training of these areas, these capacities will begin to degenerate. Athletes at this stage face conditions that are very often unique:

      • Playing for the Canadian National team:

          ° The continual pursuit of performance excellence; becoming a world-class athlete and representing Canada at the highest level of international competition.

          ° The commitment and passion to play for multiple years.

          ° Accepting different roles within the team.

      • Taking personal responsibility for the continual development and implementation of:

          ° Yearly training plans (Y.T.P.)

          ° Personal improvement plans (P.I.P.)

      • Adjusting to the lifestyle of a professional athlete:

          ° Playing in a foreign country.

&deg; Accepting the responsibilities, expectations, and dealing with the pressures.

&deg; Dealing with agents.

&deg; Cultural adjustments; language, food, and local customs.

• Financial planning.

• Social aspect of their lives; family, friends, and personal relationships.

• Preparing to make the transition from being a high performance player to some other aspect of the game; coach, referee, administrator or an active for life player.

• Continual lifelong involvement in the growth and development of basketball in Canada.

• Being a mentor to others.

More detailed information will be developed in these areas as the Athlete Development Model matures.

**Appendix G: College and NBA DMI Comparisons, Data from Basketball Reference**

| Name | Team | College Usage | CollegeDMI | NBA Usage | nbaDMI | DMIChange |
|---|---|---|---|---|---|---|
| D'Angelo Russell | LAL | 30.2 | 16.9 | 24.1 | 13.9 | 3.0 |
| Rashad Vaughn | MIL | 30.8 | 16.3 | 13.5 | 3.9 | 12.4 |
| Jahlil Okafor | PHI | 27.6 | 13.7 | 27.3 | 17.1 | -3.4 |
| Stanley Johnson | DET | 26.6 | 12.6 | 19.6 | 9.2 | 3.4 |
| Bobby Portis | CHI | 24.2 | 12.3 | 20.7 | 7.5 | 4.7 |
| Justise Winslow | MIA | 22.9 | 11.0 | 12.5 | 7.1 | 3.9 |
| Larry Nance Jr. | LAL | 22.8 | 10.2 | 12.6 | 5.2 | 5.0 |
| Frank Kaminsky | CHO | 25.5 | 9.7 | 17.1 | 7.4 | 2.3 |
| Myles Turner | IND | 25.1 | 8.7 | 20.9 | 9.8 | -1.1 |
| Josh Richardson | MIA | 19.0 | 8.5 | 13.8 | 5.9 | 2.6 |
| Karl-Anthony Towns | MIN | 23.7 | 7.9 | 24.8 | 16.1 | -8.2 |
| Devin Booker | PHO | 22.8 | 7.8 | 23.0 | 13.4 | -5.6 |
| Trey Lyles | UTA | 20.8 | 7.6 | 17.9 | 6.0 | 1.6 |
| Willie Cauley-Stein | SAC | 16.9 | 6.7 | 13.2 | 6.0 | 0.7 |
| | | **24.2** | **10.7** | **19.0** | **9.4** | **-0.1** |

## Appendix H: Current and Ideal Development Pathways:

Current model:
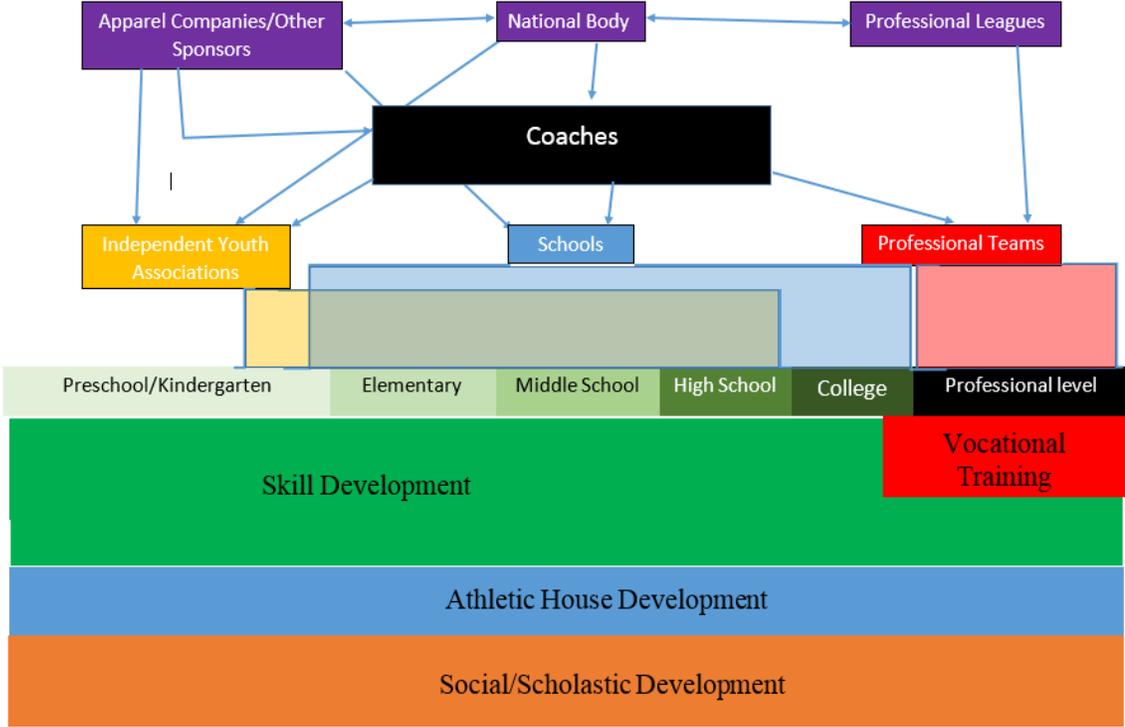
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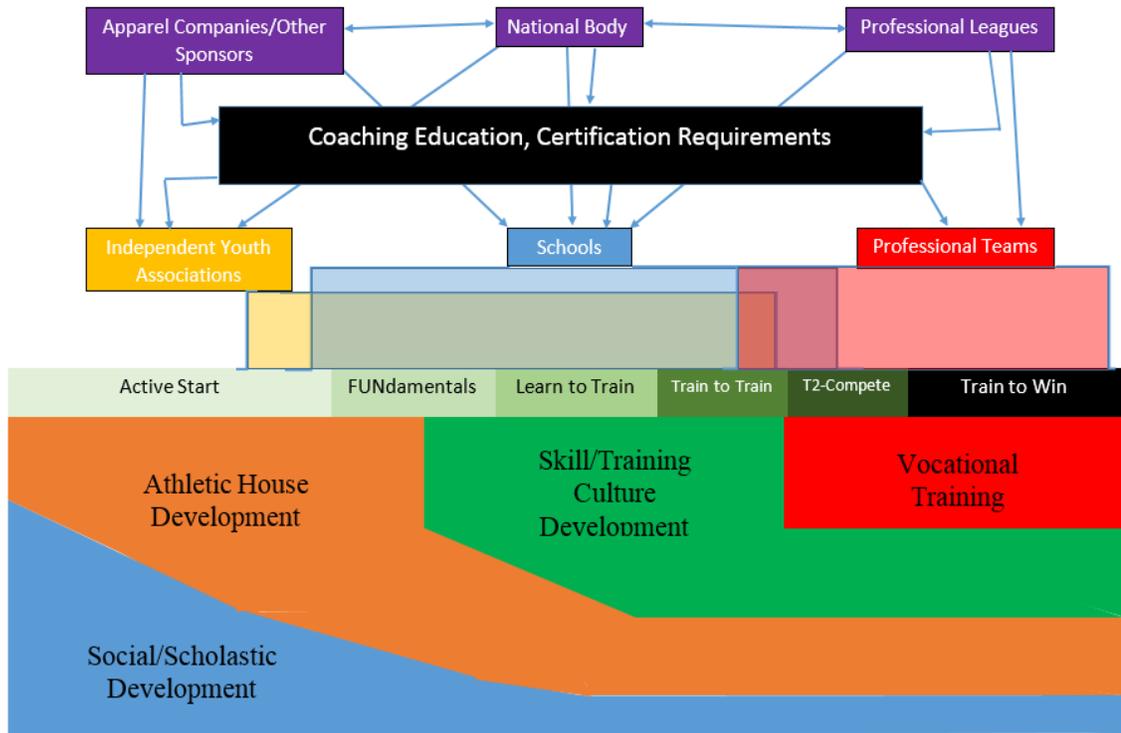
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