

Youth Football Individual and Team Assessment
 By Jack Gregory
 President of YFCA

For years I have been studying and experimenting with different ways to assess the ability of my players and how to improve those natural abilities. When I first started doing this it was purely for the selfish reason of improving the overall performance of the team but as I studied more and more about youth development and the differences between an adult athlete and a young athlete I started taking more of a personal interest in each of my player’s athletic development and how I achieved that improvement.

A few years ago I wrote and designed a Pre-season assessment for measuring a youth football player’s abilities. Although it was rooted in scientific measurements it was not however geared towards a young athlete but instead a watered down version of an adult assessment that I created. For the past few years I have been researching a way to quickly and effectively assess a player on key areas of ability. It seemed to me if I could measure them within my team and with in each player that I could concentrate on “team” weaknesses and “individual” weaknesses within my team and improve those weaknesses. My hope was, originally, to create more “studs” on my team compared to the teams I had to face. The truth of the matter is that most teams only have one or two stud players on them at the youth level (13 and below). The reason being is very simple the “Stud” player is usually a more developed child and closer to puberty then his counterparts. Normally a pre-pubescent athlete has not developed strength but as the young athlete moves into his pubescent years he begins to develop body strength. What does this do you ask? Well with the average youth athlete that hasn’t reached puberty it means that the majority of his athletic abilities come from neuromuscular adaptations, coordination, pre-pubescent muscular strength, and proper form and technique. When you add to that pubescent muscular development it gives that athlete an enormous advantage in POWER. Upon realizing that there was nothing I could really do to create more studs I had to take a hard look at the make up of my football teams. Generally speaking a team of 20 players break down into these categories:

Stud	Puberty or closer to puberty then counterparts. Well Developed reaction and sprinting speed. Well Developed coordination. Veteran player (1 or more years).	5-15% of team make up. (Lucky to have 1 and you might have 2 to 3 by end of season.)
Inexperienced Athlete	Puberty or closer to puberty then counterparts. Well Developed reaction and sprinting speed. Well Developed coordination. First year player.	5-15% of team make up. (Normally these players develop into studs by end of year.)

Experienced Player	Developed reaction and sprinting speed. Developed coordination. Veteran player (1 or more years).	15-40% of the team make up. (Normally this is the core of your team.)
Inexperienced Player	Developed reaction and sprinting speed. Developed coordination. First year player or Limited experience 2 nd year player.	15-35% of the team make up. (This is the other large portion of your team.)
Inexperienced Underdeveloped Player	Usually underdeveloped in one or both of the above. First year player or limited experience 2 nd year player.	10-25% of the team make up. (MPP – Minimum Play Player)

With this knowledge in hand of your team you can see that what you have to do to improve the performance of your team is to quickly improve your inexperienced athletes by getting them football experience. That unfortunately comes with time and usually by end of season they are closer to being studs. You can improve the rate they get there by creating sound practice plans and putting them in positions to learn. The key to developing a great team is developing the last three levels. If you can improve upon these three levels and increase their level of performance by increasing their abilities the team will improve dramatically. The simple truth of the matter is that any improvement you get out of the first two will not have as big an impact on your team as the improvement of the next three levels. The reason being that the first two levels offers no real liability to the team while the bottom three do and by increasing their abilities you decrease their liability to the team. This is a two-fold effect then in that as their ability increases their value to the team as football players increase and as those same abilities increase their liability to the team decrease. That level of liability is much higher for these bottom three levels then the top two especially the MPP's.

What do you need to assess:

Remember you are not dealing with a “small” adult athlete but a young athlete. Just as the game of youth football is completely different from high school, college, and pro-football so is the development of a youth athlete and you must be aware of this at all times.

I have never been a big fan of static testing of flexibility. My logic would always ask what purpose do these tests serve in a dynamic situation. It wasn't until I started working on getting certified in Speed, Agility, and Quickness and trying to learn as much as I could about proper speed and strength development of children that I stumbled onto

Functional Development and Training. One of the core beliefs of their training ideology is that everything needs to be assessed using a dynamic movement or exercise. In other words static flexibility assessment is a waste of time when you are trying to assess a level of flexibility in a player that is always using dynamic movements. Which if you think about it for moment it makes total sense.

It is a sad fact but some kids that come out to play football are just not ready to play a full contact sport or any kind of a sport due to the large amount of inactivity or not being in the proper state of readiness (health, physical, or psychological). You need to be able to assess this as it will be key to the child's well being, the team's well being, and your well being as you will have to coach him and the other players. The below physical assessments are recommended by Brian Grasso, a leading youth development trainer, in assessing a young athlete. I recommend visiting his website www.developingathletics.com . It should be noted that we are looking for indications and not trying to diagnosis problems in the child's ability to perform.

Individual Body Assessment:

KNEELING BACK EXTENSION (Four Point Assessment).

Crawling position, on all fours and the athlete would then raise one arm and the opposite leg straight out and on line with the body. Assessment is performed on both sides.

What to do look for:

Raised foot, lower back, and raised shoulder. Incorrect alignment could indicate tightness or weakness in certain areas.

- Foot not raised – weakness in upper rear leg or lower back. Tightness in upper front leg or abs. Lack of muscular control in those areas..
- Back not lowered – tightness in lower back or gluteus. Weakness in abs. Lack of muscular control in those areas..
- Shoulder not raised – weakness in the rear shoulder or upper back. Tightness in the chest or front shoulder. Lack of muscular control in those areas.

PUSH-UP position.

Legs, Back, Neck, Head all inline with hands shoulder width apart. Feet apart.

What to look for:

Look for hyperextension or extension in the spine (dipping of the back).

- Caused by tightness of muscles in the thigh.
- Gluteus muscles not properly developed.
- Lack of muscular control in the abs.

Look for one or both of the feet being externally rotated (heels pointed inward).

- Caused by tightness in some of the external rotator muscles around the hip.

OVERHEAD SQUAT position.

Squat with feet shoulder width apart and arms straight up over head and out to a rough 45 degree angle. Have him actively perform several squats slowly.

What to look for:

Watch if the feet pronate (arch drops towards the ground) or supinate (arch rises away from the ground).

- Caused by tightness along either the medial or lateral muscles of the leg.

Watch if he comes off his heels and balances entirely on his toes during the squat.

- Caused by lower leg muscles being tight.

Watch the knees if they collapse inward or angle outward during the squat.

- Caused by tightness along the medial or lateral muscles of the upper leg.

Once you identify areas of weakness in each athlete you can then give each player a unique workout program to use at home to develop those areas. I first recommend going over the routine fully so that he understands how to execute it correctly. Technique and correct posture are vital. Reassess after a few weeks. I recommend doing two athletes a night using the above procedure right after practice. That way you can evaluate the two and then create a tailored program for them and go over it with them before practice of the next day. This is a very valuable tool in identifying and correcting weaknesses in your individual players. The best way to do this is first evaluate the players you think have weaknesses. So start from the bottom and work up. The easiest and fastest way to improve your team is to improve the weaker players as their improvement will happen faster and it will have more of an impact on the team as a whole.

SPRINT TEST – 40 YARD

Two sprints – allow for a full rest between each sprint. The first sprint you will have him run right at you. Second sprint is watching the profile (at the side).

Things to watch for and note:

- Head up with eyes looking ahead
- Alignment of head and neck with the rest of the body
- Arms should be relaxed and flexed to 90 degrees at the elbow
- Arm swing should be linear and not travel across the body
- Run on the balls of the foot and not the heels or toes
- The striking foot should land directly underneath the body and not in front or slightly behind

What you're keying on is sound sprint mechanics. You should note discrepancies.

Ability Assessment Test:

The ability assessment test can be utilized for draft purposes or to evaluate your player's athletic ability within your own team. The assessment consists of these tests with a weighted score.

Sprint Speed Test – (linear speed)

Flying 40 Drill: (although I don't recommend the 40-yard dash for kids below the age 13 as I think the 20 yard dash is a better indicator of speed at those ages you should note the time for future reference. It also can be used as an aid with the 20 and 10-yard dashes to indicate speed endurance.)

All players are measured on the same surface using the same watches. You should have marker on the ground that the player has to cross to indicate when time stops. **AS SOON AS HE CROSSES THE LINE YOU STOP THE WATCH.** Of course a Laser/Motion system is the most accurate but they are also quite expensive. You should go over the routine of how to stop and state the times to each person marking time. The more accurate it is the better the assessment.

The test is set up with markers at 10 yards, 20 yards, and 40 yards and a coach with a stopwatch and an assistant with a list of athletes that has boxes to write times at 40/20/10 assisting the stopwatch coaches. On GO from the 40-coach the athlete sprints full speed past the 40-yard marker. Time is measured at the 10, 20, and 40-yard marker. If you have time repeat this twice or three times and keep the best score (full score). This will indicate four things of the athlete in respect to Sprinting Speed – Quickness (10 yards), Speed (20 yards), Long Distance Speed (40 yards), Also if you use the below formula they should be no more than .3 seconds difference between the two numbers if not then the athlete has a speed endurance issue.

40 time – 20 time / 2 // 20 time – 10 time = no more than a .3 second difference between the two numbers = LSE time

40-time
20-time
10-time
LSE-time

You have now tested the athlete for linear quickness, linear speed, and linear speed endurance in one test.

Reaction Speed - (Change of Direction Speed or COD)

20 yard Pro Agility Drill – (this is a very good test to measure COD speed)

All players are measured on the same surface using the same watches. You should have three markers (1,2, and 3) that are in line and 5 yards apart. The athlete will begin by sprinting to his dominant side marker 1 (5 yards) touch it and then sprint to marker 3 (10 yards) and past marker 2 (5 yards). Time stops when he crosses marker 2. If at all possible do the test two to three times and take the best score.

Now note this with his other scores:

Linear Speed:

40

20

10

LSE (no more than .3 difference)

Reaction Speed:

20 PA

COD (no more than .3 difference)

Now take the athlete's 20-yard dash and subtract the 20 PA time. There should be no more than a .3 difference between his sprint time and his pro agility time. If his sprint time is better than .3 then he needs to work on reaction speed. If his sprint times are slower than his Pro Agility times he needs to work on linear speed and more than likely his sprint technique is off.

20 yard dash time – 20 yard pro agility = COD time

You now have measurements on Linear speed and Reaction speed for your players.

Explosive Strength – (Elastic Strength)

The Standing Vertical Jump (SVJ) is the best way to test for explosive body strength in an athlete. It gives a very good indication of how explosive an athlete is compared to his own body weight.

The most affordable and easiest way to execute a standing jump is by using a 10 feet 1 inch conduit pipe that you can drive in the ground for 2 feet (marked in red for the limit). The 8 feet section is marked down to the ¼ inch in Red Permanent marker as well. An athlete comes to the pole stands straight up with one hand straight up and finger tips straight up as well reaching as high as he can up the pole while staying flat on the ground. This measurement is taken at the fingertips and recorded. Then the athlete performs a standing rocket jump and jumps as far up the pole as he can touching the pole with his hand as high as he possibly can. Place colored yard chalk on his fingertips and when he touches the pole it will stick to the position he touched. This will allow you to take an accurate measurement. Try to do this two to three times and take the best score. A coach or parent can hold the pole straight on the opposite side to keep the pole straight. Make sure you have a dust rag on a pole to wipe the chalk off after each jump.

SVS = Standing Vertical Jump – Standing Vertical Reach = Explosive Strength in inches.

Maximum Strength – (the greatest force that is possible in a single maximum contraction)

Since it is very unsafe to test a young athlete by having them execute a single maximum rep we will test them for maximum strength by using push ups.

Procedure – Have the athlete get into a push stance. Legs, back, neck, head on a straight plane along with the shoulders. Hands are shoulder width or a little wider apart. Feet are perpendicular to the ground. One rep is done when the athlete goes all the way down and his nose touches the ground and all the way back up (1 rep). If his back is not straight or his nose does not touch do not count the rep.

Have him execute as many push ups he can and note the time.

To assess Maximum Strength (MS) take the push ups and divide it by the time. This will give you a number. When using time each minute is a whole number. Every 6 seconds is .1, every 3 seconds is .05, every 15 seconds .25, every 20 seconds is .333, and every 10 seconds is .167.

Example a player gets 50 pushups in 2 minutes and 28 seconds or 2.483.

$$50/2.483 = 20.14$$

Example a player gets 50 pushups in 1 minute and 40 seconds or 1.667.

$$50/1.667 = 29.99$$

Obviously the 2nd athlete is stronger. By dividing the pushups by the time this gives a much more accurate assessment of maximum strength.

Coordination Test (the ability to move the body in a smooth progression)

I personally think the fastest way to see if a young athlete is coordinated is to have him execute a bear crawl correctly for a distance. If the athlete appears comfortable, and the movement appears smooth, and he executes in good time then the athlete is coordinated. If the drill is not executed correctly, comfortably, appears choppy or rough, and/or executed in a poor time then the athlete is not coordinated.

I use a 5-10-5 ladder drill that has the athlete execute a bear crawl in a shuttle type exercise for 40 yards. The reason for the distance is that if the athlete's coordination is flawed it will begin to show during or after the 10 yard portion. The ladder drill is executed by having the athlete get in a bear crawl (BC) position on GO he BC's to the 5 yard marker and BC's back. He then BC's to the 10-yard marker and back. He then

BC's to the 5 yard marker and back to finish. Note the time as he crosses the finish marker.

Look for:

Smooth = Yes/No

Comfortable = Yes/No

Good Time = < 30 seconds

If all three are positive he is coordinated.

What do you do with all of this information?

Now for each athlete you should have these figures:

Sprint Speed Test:

40 time

20 time

10 time

LSE time(calculated)

Long Distance Speed

Speed

Quickness

Speed Endurance

Reaction Speed Test:

20 Pro Agility time:

COD time(calculated)

Reaction Speed

COD Speed

Explosive Strength Test:

Standing Vertical Jump height:

Maximum Strength Test:

Push Up Test:

Once you have these numbers you can then begin to compare each of your athletes properly and determine how to best improve upon their abilities as individuals and note team weaknesses as well. This is also a very good tool for assessing abilities in a draft.

The key things to look for as a coach is to note any trends in your team as whole and in your backs and lineman (if in a back restricted league) so that you can create a plan on improving those weak areas in your team.

Note your less able athletes and create programs that will increase their abilities as well. Remember the key to improving your team is improving the weakest links first as they will improve much more rapidly then your more able athletes.

This article only touches on athletic ability and not football ability, which is something completely different. It also does not touch on measuring aggressiveness or toughness both of which are very hard to measure until your athletes are actually in pads and doing

live contact. You can in some way measure these things by watching kids play games. If a kid tends to be more aggressive and/or tough he will stand out. If a kid is timid of contact or afraid of contact that will be apparent as well as you monitor the game. I recommend power ball or deer hunter both are good games to measure these attributes in players. In my experience kids in their first year of football struggle quite a bit unless they are solid athletes and naturally aggressive. So many things are happening at once on a play and first year kids tend to gaze and not act. In most cases if a kid is well coached his 2nd year is a breakout year. This includes moving up in a new division. A 10 year old with four years of football experience that is in his 1st year in a new division will be more reliable than a 10 year old player in his 1st year of football with all things being equal.

I hope that by sharing some of my knowledge that I have gained in studying different ways of examining the abilities of young athletes and football players that I could help other youth football coaches in assessing their players.

Jack Gregory