

Interviewer

So the first question is do you feel the rating of the Academy you are currently working within influences your understanding and application of bio banding?

Interviewee

No, it probably doesn't, and I think that the fact that we are category one allows us to probably have more resources and probably increases our understanding. However, I feel that our coaching staff are very open to the thought of bio banding and I would say we probably don't do it as well as we probably could. But I do think that there's appreciation for where players are when you know when we do our meetings and reviews and all that stuff, so I don't think our category influences our application understanding. I think it's more to do with the resources that we have within that category, allow us to apply and have our influence in the way that we want to have our influence really.

Interviewer

Do you feel like your colleagues' roles maybe influences your motivations when employing bio banding?

Interviewee

Yes, I would say so. At the minute, I think that there is a questioning around it all, all the time and like I said, I think our coaches are in a very good position that they understand that there is you know an effect of where players are in in their maturation status and part of the year born and all the things that come with bio banding do influence how we use it, and I think you know in a really positive way that we probably are not negatively influenced by them. It's definitely in a positive way for sure.

Interviewer

Yeah, and again do you feel like your academic background influences and enables you to employ bio banding techniques? Or is there a lack of say education around bio banding?

Interviewee

I think that there is definitely a lack of education from University courses to professional accreditations. I think education across the board from a sport science strength and conditioning is really poor and it's on the practitioner in themselves to go out and find more about it. I equally think it's really poor from a coaching perspective and I think that the new UEFA physical fitness competence framework obviously tried to address that...it's only in most recently that it's come to light that that's happened, which I think is only a really positive step, but I think you know that there is a massive lack of education for practitioners and coaches around bio banding for sure.

Interviewer

And because of this lack of understanding, do you feel like coaches could almost be reluctant to take bio banding on board?

Interviewee

I wouldn't say there was a reluctance to get on board. I would say there's maybe a reluctance to commit to something because of a lack of full understanding of what it might look like. I think with education we're lucky enough to have practitioners that I would say are fairly up to speed with what bio banding is and how it can work. I think we can implement it. I would say you know even from our sense, our

resources where we're currently at with staff down from recruitment process is still a limited ... but I think our awareness of it is pretty high from myself, coaching manager or equivalent ... Head of coaching is really up to speed with it and I think once we have the resource and the staff that then I think it would be something that we will implement and is very much where we want to be within our physical development framework and kinda coaching framework that bio banding is a big part of it. So I don't think that there's any reluctance to implement it all it's more of well, we can give it more justice could be the biggest barrier at the minute.

Interviewer

So in terms of the 3 different phases within your academy, does the application of bio banding vary at all between each or is it pretty much the same application regardless of what maturation or age the player is showing?

Interviewee

It's pretty similar for all. I would say that It's mostly used in our MDT process where we review each player and each players bio banded maturity status and all of the things that come with bio banding are discussed. But in terms of using it on a day to day basis in coaching sessions, then it's all the same because we do kind limit what we do with it at the minute. But our awareness of players different maturation status is you know, quite at the forefront of most coach's mind during all the sessions.

Interviewer

And so, in terms of the three different phases, which do you feel uses bio banding most efficiently even though it is pretty much similar throughout?

Interviewee

I'm sure they all use it the same, and I think it's as efficient as we need it to be at the minute, although we'd like to make it better. I think everybody uses it fairly efficiently.

Interviewer

So as you mentioned you would like to make it better, is there any different practice you would like to apply to how it is currently ran?

Interviewee

Yeah for sure. So I think we we've discussed in terms of doing bio banding tournaments, and training blocks and I think around when we do eventually play different tournaments, we'd like to have training groups that maybe are in bio banded age groups as opposed to chronological age groups would be beneficial. I think we'd like to schedule it into our program better so we can identify strengths and weaknesses and we use a gradient system of high potential players to almost cross check that we are highlighting the high potential players in the right way because they are say not just the oldest or the biggest at that time. So I definitely think that we need to move further onto it and I think we have cracked our awareness is on it I just don't think again, we necessarily have invested the right amount of time to do it properly.

Interviewer

And just on the flip side to this, how is it you are currently bio banding at your academy?

Interviewee

So what we are doing, we use the Khamis Roche method to understand predicted adult height and then we have current percentage and then we use percentage of predicted adult height and we group them and then when we do our physical testing reporting, we highlight in bio banding age groups as well as chronological age groups and where they fit and we compare them to bio banding benchmarks and chronological benchmarks and then in the MDT process we will talk about a player if he's really struggling the physical coach would then use that bio banding data to make a comment around why that could be if it could be to do with a biological age or chronological age issue.

Interviewer

Yeah no, that's great thank you and that's the first set of questions I have for you completed. But the next questions are based on statements from the survey so the statement are to what extent do you believe that differences in maturation status impact the development of physical, technical, tactical and psycho-social characteristics? And you strongly agreed with all these statements.

Interviewee

Yeah, so I just address all four now? I think that biological age clearly affects all of those different aspects and ultimately when you group people by their biological age and their chronological age, they are viewed as completely different people and in our case footballers. So, if we look at bio banding not just from physical maturity but emotional and psychological maturity, I think that learning from technical and tactical can be affected if you are viewed as the smallest in the group or the youngest from the maturation perspective, yet you are still needed to compete with the oldest. Then I think you can get some real positive gains in that, because as long as there is the mindset from players to still compete and try their best, then all of the different aspects, technical, tactical, psychological, physical can be pushed to the limits, which I think is where I think you need to overload to improve them. However, that stretch for those players can be sometimes too far, so understanding when there are opportunities to make sure that they are the best in the group when we can put them in there biological or bio banded categories can really help with success as well, so I think having stretch is really good and I think bio banding is always viewed as the pinnacle to where we want to be. However, for me bio banding is not the pinnacle I think its periods of stretch and periods of success is what is actually the most beneficial for players, and I think you see it all the time is when players from a chronological age perspective get played up. That's their stretch, and it happens routinely in football, and it's viewed as you know, if they're good, they should be able to vote technically, tactically, psycho-socially and physically. However, I also think with success there is also a good development. So I think Bio banding and grouping people across biological age I really strongly agree it can affect. However, I think that if you always play people in their bio banded age groups, I think I'd strongly agree that would be a negative effect as well as strongly agree it can have a positive effect.

Interviewer

Yeah no, that's great, and the next questions again are based off a survey question and the four components of physical, technical, tactical and psycho-social. The statements were to what extent do you believe that maturity related differences in developmental characteristics impact your ability to accurately assess the competence of a child?

Interviewee

I think from various different ways obviously as they're going through their growth periods, it affects all of the different aspects of physical fitness which you know for me, a technical and tactical action or a skill is just the outcome of performing a physical movement. So if physical movement is affected and it's going to affect that physical skill and then If you can or you cannot complete a physical skill that maybe you could previously complete, then obviously psychosocially that can have an impact on the player as well. Whereas vice versa if you are the only one that has gone through your growth spurt or

not gone through your growth spurt and you are deemed more successful but then subsequently you then go through your growth spurt and then are deemed unsuccessful. I think making judgements around people's biological maturation periods or on a player's ability is really difficult and its one that we really tried not to do here. I think that's you know one of the strengths of a lot of our coaches and our Academy manager is their awareness and understanding of it without really fully understanding bio banding maturation to it's probably highest degree, it's almost like through experience and common sense that they know that players are growing, that they've highlighted that football boots change because their feet are growing, and then they go right, but he's really struggling yet he was a really good player. We grade players on potential where we think potential there is and that's graded over a longer period of time. And then we also grade our players on their current performance. So current performance may be low potential may be high and then we delve into why the reason that could be and obviously with a lot of the U12s to U13s to U15s and U16s groups is usually due to a period of rapid growth which I think really influences that.

Interviewer

Yeah, no, that's great again thank you I feel like you covered a lot there. So the next question is just simply if you could please give me some detail on a positive experience you've had when using bio banding?

Interviewee

I think that our biggest one has been on fitness testing, data reporting and grouping players in their biological benchmarks against biological benchmarks and also providing data against chronological benchmarks, so I think that's vitally important that the coaches see where they're at in the group, but then highlight them that if they were in a different group than actually be viewed as better. I think one of our biggest examples of success was probably a negative for the player in the fact that we had a very small player in our Under 15s on the U16s age group who was offered a scholarship because everybody was like he's really small he's clearly immature, he needs to grow up, and there'll be a lot to come from him physically and technically and tactically. However, using bio banding highlighted that he actually wasn't immature, he was 97 to 98% of his predicted adult height. He was just small and not very well physically development. Although he was mature enough to be and so ultimately it helps make decisions around that although we thought technically tactically, he was probably capable, he was never going to reach the physical level that he would need to compete at this level. So it was the almost push back against people who would use bio banding as a bit of a reassurance that actually no what we need to just have is facts and bio banding helped us have and deliver facts to make a decision rather than the opposite way round, which I think is always useful, is oh give them time, no just give us the objective information we need to make a better informed decision.

Interviewer

Yeah, and I feel like this next question will almost follow on but how has bio banding proven useful for your club?

Interviewee

Yeah, for sure and I think you know there is always going to be situations where players are judged and seem to be better physically, technically, tactically, psycho-socially then maybe they are. But I think you know a success for us are being as a club, looking at all our age groups across the board in terms of recruitment and retaining our players. They are not all early maturers Q1 born, but we have a vast spread across a number of quartiles and maturation levels. In fact we've offered one early scholar to a player who is Q4 and biologically a late player because we know he has potential. Although he's 15

and the smallest and slowest, he's biologically equivalent to the U14s and when he sits in that group he physically, technically, tactically and psycho-socially way above. So we can say with confidence that he has got high potential.

Interviewer

Yeah, and so does this feed into the rationale of why your club uses bio bonding or if not what is the rationale for your club using bio banding?

Interviewee

For sure, it's to make fair and objective decisions about players and taking into account as much information from the multidisciplinary team as possible. So, bio banding we use it and our use of it is to have the most factual information and it is one part of the bigger picture of information we want to use. We try and use objective information from technical, tactical as much as opinion. We like to use opinion from a physical perspective and have subjective expert opinions from coaches and staff. However, we also want objective opinions so it is another layer of objectifying our information of players in addition to our opinion and I think it just helps confirm or refute claims as well as you now another reason for why we'd like to use objective data across the board for different aspects.

Interviewer

And just on the flip sides to the positives you have given me, can you now maybe give me an example of a session where bio banding has provided a new challenge for yourself or even an athlete?

Interviewee

Yeah, I think that those players that always are successful because maybe they are biologically the more mature in their group and suddenly then moved into groups where they are not so advantageous in the physical or technical tasks aspect because of their maturity that they struggle. So the support around it needs to be high through the coaches and through the other staff to pre-empt this is going to be a different experience for them. So I think that's the difficulty with bringing bio banding into a system that maybe hasn't had it previously is that players that are always successful suddenly get the stretch and can't deal with that. And I think we as a club are very good at identifying when there are needs of stretch and also good at identifying periods of success. However, those that are always successful at events stretched is the much more difficult way round than the ones that are always stretched to then become successful by using bio banding. And I think it's a lot more difficult and struggle when you go from that former way of success into stretch with bio banding rather than the vice versa.

Interviewer

Yeah, and even though it is more of a struggle or difficult for those athletes going through the stretch. Do you feel it is still important to introduce new challenges to athletes within talent identification and development?

Interviewee

100% and that's for me, exactly why it should be used and structured, planned and scheduled into a program because periods of stretching success for me are what's going to help improve development rather than always giving success, or vice versa, always given stretch. So I think the changes are vitally important.

Interviewer

Yeah, and so do you feel like bio banding maybe offers an advantage over traditional approaches in general or?

Interviewee

I think it's just another tool to be able to use as part of your armoury in the whole of the talent development and identification spectrum. It offers tons of advantages but I think it should be just another tool to use rather than changing the whole programme to fit around bio banding. I think there are more benefits to using both because it then allows the opportunity to offer the stretch and success.

Interviewer

So in terms in early, on-time or late matures, do you feel bio banding can ever place too much emphasis on one specific type of player?

Interviewee

I think it does in It seems to be promoting to help those later maturing players across the board. However, I think here we use it as an even spread across the board to be able to offer that opportunity for the players that are slightly early maturing to offer them opportunities to play up and you know, I think we use that quite well here, but I definitely think it's biased towards helping the later mature rather than the early mature.

Interviewer

So do you feel this bias is warranted or do you feel it almost runs the potential of possibly neglecting one type of players when comparing to another?

Interviewee

I think it probably is warranted through experience of certain coaching staff that have always seen as the late maturing players are the ones who struggled the most because in their chronological age group those later mature ones are the ones that you see struggle more, so it's providing help for them. I think they're traditionally in football that the early maturing players who are successful are played up to then usually fit into the average age group up usually. So I think it is warranted from experience but not from scientific rationale.

Interviewer

No, yeah, that's great again and that's another section to the interview complete. The next questions are based on the barriers of bio banding and if you could just begin with giving an example of maybe a negative experience you've had when using bio banding and challenges you or an athlete may have faced?

Interviewee

I think it comes from the lack of education for both practitioners. There was a case when I first came into this club where bio banding was used in the wrong way. So everybody was on board with using it and everybody bought into the idea that it's important. However, it was used to basically group all the smaller players or early mature and late maturing players in Group order, early maturing players for a range of age groups and basically putting the later maturing against the early maturing, which I suppose

means that you've grouped the right place together so you can see them in their right environment. However, competing against you know the early maturing ones was clearly a massive negative and I think because of the lack of education, doing bio banding wrong can really exacerbate the negative side effects or the negative elements of it and therefore can increase the barrier to potentially using new kind of ideas. Fortunately, enough we spotted it halfway through the session and that allowed us to change it and we use it as a learning opportunity to basically tell that all those early maturing players that. When you then played against their own group, how much more difficult they found it, and playing against the late maturing group that that's what some of their teammates face every day. So, we tried to turn a negative consequence, Negative outcome of using bio banding wrongly and admittedly we used it wrong and that we try to address that and highlight and use as a learning opportunity to understand what they may feel on a on a day to day basis.

Interviewer

And again, I feel like you've almost covered my next question. It would be what do you feel is the biggest barriers of bio bonding?

Interviewee

Education, for sure education and because you know it done wrong or it done without giving the right information could be really detrimental to the outcome of the session and therefore just could increase that barrier of trying something a little bit new and a little bit different. I think you know, like I said before, the coaches that we have at least united are really, really open to all those ideas, and I think we have a good structure in place. So that then allows the positive outcomes of it to come to the fore. However, education across the board is for me the biggest barrier.

Interviewer

And so do you feel like this is a barrier which all academies are currently facing?

Interviewee

Yeah, I think so. I think the ones that are have overcome it have either done their own research or help their staff with the education side to it. But yeah, I think that's for sure why they will be barriers which most if not all academies face.

Interviewer

Based off of this do you feel the rating of an academy can influence or alleviate such barriers?

Interviewee

I think potentially it can. I don't think that there is nothing in the EPPP rules from the Premier League that state that we have to use bio banding regardless of category. So I don't think that the category can state that, you can kind of have somebody who's worked at a category 3 or category 4 academies who has really good knowledge of bio banding and tried to implement that and there could be some very good coaches who work at cat 3 or cat 4 academies. Whereas equally you can have some very uneducated coaches that work at high category academies. So, I don't think the categories status effects it. I think it just depends on the individual's coaches and practitioners that you have at that club.

Interviewer

Yeah, and just in terms of some general barriers say for instance club funds or player buy-in, coach buy-in and so on. How do you feel academies could try to ease some of these problems they are facing?

Interviewee

I think education really, which you know most of it is fairly cheap or free. I think that if the Premier League helped grassroots football and help support the notion that there may be periods of different age grouping I think would be would be really helpful. I think if it is written into rule by the EPPP then I think it would help to force people to do it. But again, I think it needs to be considered bio banding tournaments and probably labelling it as something different to bio banding just something as simple as I've used previously year born and school year tournament essentially are bio banding in a different way they just give a slightly different opportunity. For me bio banding has become a very scientific term where actually what we're just trying to say is offer different opportunities where you are not always the youngest or the oldest. Or you know you're not always in that same level in your age group you know there can be different. I think that the school system from September age group and September to August, age groups that the football in this country is governed by. It could equally be to be year born as well and that counteract some of the effects of just always having that one way. So, I think, although bio banding scientifically, we've percentage of predicted adult height or on maturation status is really good. I just think we could probably make it less scary by having you know it turned in a different way.

Interviewer

Yeah and I can understand that simply just by when people ask me about my thesis. I will give them my title and they won't understand anything but then explaining simply what bio banding is they take it on board. But anyways we have now come to the last few questions of the interview and these are based on the multidisciplinary application of bio banding and if you could please just describe how and why you have used bio banding? So was it used say during match play, training or s&c and again if you could go through all 4 components.

Interviewee

OK. Yeah, I think we've used it most in our review of the players rather than any particular training session or s&c or technical tactical. We just use it in the review of players and I think that allows better informed conversations to happen about where a player is performance wise and it's just another layer to the fact that they may be struggling because of a certain thing, or they may be doing really well compared to the rest of the group because of a certain thing. I think that for me is all of the different elements to physical, technical, tactical and psycho-social elements can be influence by players maturation status. So you know we use it as another layer to objectify information to identify where a player is and why they are at this stage

Interviewer

So just to confirm you haven't really focused on any injury prevention for bio banding or anything along the lines of?

Interviewee

I mean I suppose we use it to identify periods of struggle, whether that's from an injury perspective. Or again, it's just another piece of information that if a player gets injured, we dig into the reasons why and

one of the conversations will be where are they in growth and it could be one of those factors. We don't go right this player is going through a period of rapid growth we need to change something. It's just something that we may use to keep an eye on and it's one of the pieces of information we keep an eye on when looking at load management or training schedules etc.

Interviewer

So moving on, do you feel like bio banding is a staple of the player development and curriculum?

Interviewee

Yeah for sure and you know again I probably sound like a broken record now, but you know, it is just being used as another piece of information as to why a player is where they are at or why they are struggling or why they're reaching their potential or not reach their potential at a given period of time. For me, putting too much on it is a negative where it's putting too little and it is equally a negative. I think it just needs to be used to form a part of the bigger conversation around that individual players development.

Interviewer

Great answer again thank you. So we have come to the last set of questions which are summary type questions and the first one is what is it about bio banding which makes you think it does or does not enhance the assessment within each of the four components?

Interviewee

I think it just allows you to understand where a player sits within their group in relation to the other players. I think that helps coaches and practitioners to understand why they may not be as advanced or progressed as some others. I equally think that sometimes bio banding is used as a bit of an excuse for a lack of development. You know you have a late maturing player and they're young so therefore there's no wonder they're not as quick as everybody else. Whereas I think sometimes we can refute that excuse using bio banding and that's where I think it can be quite useful as well.

Interviewer

So just from one of your survey responses you feel players should be introduced to bio banding from the YDP, could you just go a little further into that and why you don't think it should be from the beginning?

Interviewee

Ultimately, because most players don't go through a period of rapid growth until they hit the YDP. I think from a physical development standpoint, we try and use competences in certain movements and those competencies don't necessarily relate to or there is very minimal players who go through any period of rapid growth in the U9s, U10s and 11s age groups. It only really comes in when they're getting to the U12s and the YDP.

Interviewer

And we are now onto the last question of the interview and what is it about the survey made you more likely to implement bio banding?

Interviewee

I don't think it changed my mind about implementing bio banding or not. I think it just reinforces the idea that there is scientific investigation into these things that can help. But I would say that our programme is probably where we want it to be with our resource at this moment in time. But it does still need to develop in order to reach where we want to be with our unlimited resources to implement it as fully as possible.