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INTERVIEWER

If I'm ever looking here or there, it's probably just 'cause I'm taking some notes and you know things for the next time. But we can start off with the first question, which is do you feel your rating of your Academy you currently working in influences your understanding and application of bio banding?

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Interviewee

So the current academy that I'm at they don't necessarily do bio-banding but they do use maturation data to inform practice and decision making, but it will still stick to within their own normal age groups and I think a lot of it is just based on the facts and logistics 'cause you've got different kids, different age groups, different timings, different schools and so at the moment not within this Academy now.

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INTERVIEWER

So do you think the roles of your colleagues influences your motivation to employ bio banding? And how is it you employ bio-banding, is it during like match play or trainings for instance?

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Interviewee

And so when I did it, xxxx a lot of it was just during training and we did have a few of the odd anomalies where kids were significantly underdeveloped physically, that would require match play to as understanding of using his chronological age and biological age to potentially dropdown age group but it was all based from the individual needs. And though, especially at Xxxx but Xxxx, do it as well, where if they know they've got kids struggling that's physically struggling and they think there is the better opportunity for him is to play down to get that confidence back up and to actually get used to going through our PHV. And most clubs do tend to have a bit more openness to doing that rather than applying a typical bio-banding session.

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INTERVIEWER

and just off the basis of that. Do you have a specific example which you could go into? Someone's being brought down and then maybe being brought back up or?

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Interviewee

Yeah, so we when I was at Xxxx and we had a very underdeveloped under 16 where his actual age I think was 13 just over 13 and a half. So as you can imagine, like his age is significantly down, but obviously at the same time there was questions over his technical ability as well, so putting him down and age group actually allowed coaches to properly assess his actual technical attributes and his, technical and tactical rather than just like we already knew that it was going to be physically struggling and just 'cause of his size and his weight. And so it was actually an idea that will actually see if he could you know come and go in and out of pockets quicker? Could he get in and out with possession. And that's mostly one of the biggest examples I've seen using specially the maturation status for match play. That's something that we did, but then in training he was always with his own age group and I think one of the biggest things when it comes to the bio-banding side of things, especially within an under 16 like that is his psychological well-being because obviously for him he already knows he's the smallest kid he already knows he's the lightest of the kids and then getting pushed down because of his physique and his maturation then has can have some sort of mental detriment to what he believes is to being a footballer and so it was actually having to find a balance of going OK ... Well, you still need to play with your own age group, so you get used so that sort of physicality. However, you need to have that ability to be on the ball more, and that was mostly best one was under 16 to be fair, and we had to adjust

his training plans throughout the week. And so, for example he did erm two gym sessions a week and he did three on field training sessions. And then you he had a game on the weekend.

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INTERVIEWER

Yeah, it's a sound like a great example, like it is right that when you're the smallest kid you don't want to be pushed down and whatnot, but it's for their benefit in the end but they don't always realise this. The next questions is do you feel that your academic background influences and then it enables you to employ bio banding techniques?

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Interviewee

Most probably from when I was doing research mostly bio-banding was sort of initially being applied within football and so like you must have no more of that anyway. And but I was involved in bio-banding at Xxxx and that was very much influenced by the xxxx model and my head of department. She had spent four years at xxxx so when she came into the club, her first thing to do was trying to implement bio-banding and so I had that going on whilst I was doing my internship at Xxxx and that's where majority of time in terms of academic terms I started pick up a bit more knowledge and application. I think over time when you do bio-banding and it's forever changing obviously 'cause you've got your bio banding groups mostly based on the individual. You've got players moving up and down, and initially we like purely structured it based on how it was going to be done and applied. But then there was some players who are technically and tactically miles better than the group that they was actually in, and so then it arguably became a little bit more distorted and just based on that technique. But the club was still fairly open to making sure that anyone that does require it still had the training sessions for it. Then in terms of academic research from it. And obviously there's a lot more in it now. Mostly then what I did when I had to apply it back then it was a bit more not sacred, but it was a bit more. There's a thing called bio banding, but it wasn't much application and understanding stuff. Who uses it and in what context

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INTERVIEWER

As you say, your colleague came across from xxxx UM and was kinda knew more about bio-banding. How was the rest of the staff and your colleagues and you know taking on board bio banding? Was there any reluctance as such or did they take to it with open arms as such

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Interviewee

Yeah. I mean initially and the club was going for a massive big change in itself and in terms of the structure and the actual leadership of the Academy, and obviously the person had come in from xxxx, had a massive influence in terms of being a head of department. So obviously for her she had her own vision as to how she wanted to change the overall Academy structure from her sports science and Medicine point of view and so a lot of the challenges really were not from internal departments such as you had medical and sports science 'cause we all knew the benefits you can get from that. Obviously the biggest conversation you've got to have is with the coaching staff because obviously you've got specific coaches for specific age groups and honestly, they've got their own development plans for players from a tactical, technical, mental and physical perspective.

But we've also they want to prepare for a game to make sure that they've got the right structure in place, because obviously setting coaches. They say, they'll want to be about development and development of the player. But when it comes to an actual game, they'll be the person to point the finger at someone else if they've not had the best preparation for all that week. And if that's been because of our limited access because the player has been on different scheduling program to the rest of the players, and he doesn't fit into that team structure

anymore. And that's when it can actually become a bit of an excuse for them rather than actually self reflection upon their own skills. And I think it's mainly understanding where from the coaches it's a bit like before he initially tried and put in any sort of bio-banding structure is to understand what environment you've currently got, like what type of coaches you actually have. And I've been a head of department at xxxx and because of the limited resources that we had in terms of staffing and the timings, that we only have like bio-banding was fairly impossible to try and run and whereas at Xxxx, because it was more of a top end cat 2 Academy especially at that time there was mostly a lot more infrastructure in place. There's a lot more staff available to help with the session demands of it, and ultimately as well as having the facilities. And obviously if you're going to ask for different age groups to come in at one time, you're arguably looking at minimum half the pitch size for each group. So, then it obviously depends on what requirements you've got in terms of facilities, then sort of caters towards what you can do within a by bio-banded session, but I think a lot of it is definitely understanding the organization and a lot of time it's mainly understanding the coaches finding out which ones are definitely about development 'cause that's how you can then implement that and talk about oh yeah, we can work with these players because these players need a bit more on the ball to get better technically tactically 'cause all they do is get bullied off the ball and obviously from that side of things you can look at the recruitment side and that's where especially at xxxx we used it with a lot of the trialists that we've got involved or that came within the club. It was quite important for us to understand OK, we know he's quite fast player, but he's not technically very good, so let's put him in somewhere where he can be still challenged physically, but have that technical and tactical ability to be challenged.

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INTERVIEWER

Yeah, erm and just off the back of that. Do you feel you in terms of your experiences would you like to apply different practice or is there anything which stood out that you'd like to do different compared to how you've seen it done yourself?

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Interviewee

Yeah, and especially when I was at xxxx it was quite a rigid format. Very structured which I think is required and but I also think that it would be better to be a bit more flexibility around it and especially for players where if they're not they're playing down majority of their age group. Then there would need to be a bit more flexibility within that process and for one example and it used to be as part of like an hour and a half two hour training session half an hour would always be a athletic development session. Which was the best thing for it, so he literally had players that you could like literally give specific detail and specific drills to based on their maturation status. And we always do on percentage of height achieved and obviously you can do offset maturity, but what we found with offset maturity was that with it having the six month error it's too much of a gap so we just went for the more old school method.

recording briefly lost

on those points, and this is where some part definitely change was ... sometimes we had ... say we had like 90 to 95% group and there was actually only 10 kids available for that actual training night. So when it's like, well, actually how structured a group do we go here? Do we make sure they get the other specific on field development, which we did? But then, how much do they need? The technical tactical practice? But then to make sure it actually ended up something that was more beneficial long term ... and so then that's where we had to like push up, the better, the better of the 85 to 90% says it's been pushing into that bracket. It is obviously when you've got training week in week out, as you have got kids in schools who are getting pushed to do school games or whatever sporting curricular activity that they've got going on outside. And obviously when you've got under sixteens and under 15, their starting GCSE, so you've got some parents, that will drop a training session to make sure they can achieve

academically and so it's always sometimes you gotta be more flexible in terms of numbers and understanding the certain situations that sometimes it might be worth doing bio-banding within a specific block within a season. Obviously for like the best perspective is to have that specific block say every Wednesday or every two nights a week and you keep going throughout the whole this season. But actually sometimes teams players aren't always gonna be available for all them sessions. So then it's arguing may go into or do we do a six week block of bio-banding or a six week block of something else? So that's something that most of these be a bit more flexible, 'cause sometimes there would be times where I had four players within that one age group.

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INTERVIEWER

Yeah no, I understand because there's nothing worse than turning up for a training session. Even as a player, and there's what like four people. You want everybody there like your all your teammates and that that's where like the chemistry comes and everything else comes into it. But yeah, so do you the application of bio banding varies between the development phases within your Academy?

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Interviewee

Yeah, I think it does. I think obviously you've got under 12, but I still mentally nutters, mostly. Where there still transitioning into like a sort of secondary school environment, and then on the other side of the spectrum, you can look at your higher age ydp age groups and you've got Moody teenagers who think half the world's against him and the trying to adjust to their own hormonal system. So I think ultimately it's got to be flexible and and it does vary. And in terms of the practices that we've used, so, like when we've gone through post PHP players you can batter them a bit more and physically it becomes a lot more harder and a lot more detrimental. And another problem that you do get, especially within within your 15/16's age group majority of them are already playing up age group within the Academy structure and you've already got. So, 16s playing 18s football you've already got them moving up. You've got the 15s then filling in the 16 fixtures, so it's then understanding. Well, actually, the amount of load and stress that's going through their body. The implications of what you do within that training week actually hasn't effects then on that match performance. So then ultimately, then, having to distinguish through GPS really as to how much intensive players actually means perform within the athletic development session? Obviously want players to sprint you want them to be quicker and be more agile within the sessions, and but the structure of it sometimes does have to change the necessity of the player playing games week in, week out, and the structure per say was all similar throughout the program, but most probably the biggest difference was pitch size areas.

And obviously more players will get more exposed to Accel. Decel work when they were going through more pre PHV what we tried to do when it came to players that are hitting that PHP period was to actually rather than going Accel/decel and have more joint loading stress responses was actually to create the larger based areas and then plays that had the post PHP and was more or less getting exposed to different variety of pitch sizes. I think you ultimately try to cater and I think the program differs when you've got players within that PHP program 'cause sometimes you feel like you get players that will go through PHP and then don't have a history or any injury history or anything like that in their physical development so it just naturally occurs and goes along within the process. But then you are always going to get four or five players that or two or three age groups, that will struggle to meet the normal demands of the program.

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INTERVIEWER

Yeah, I understand and so just in terms of the different development phases and specifically bio banding, which phase do you feel uses it most efficiently?

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Interviewee

Yeah, I think I think you're younger age groups, so foundation phase, we didn't necessarily use it on foundation phases mainly because of the structure, can't exactly be monotonous because of the way the kids are mentally. And So what we would only use it where was under 12 to under 16 youth development phases as that's obviously when you start to see more of the long term changes in the spikes in height and things like that. And so a lot of times your thirteens fourteens fifteens age group that bracket and give or take a few players that maybe sit outside of that bracket. But especially for 14s and 15s you starts to get the late developers And when you get the thirteens fourteens the mixture of heights and physical attributes that you get within their age groups is massively varying. I think that's something where bio-banding definitely gives a bit more influence and a bit more Necessity for that to be more structured program for the individuals, and so, for example, when we've had an under 13 team player. But, he's a very early mature. We've had to be more patient with him because he's limbs or all over place. The coordination is not there to balance is not there and for them they would just want to like to do. They want to know right? How do I get to be under 16? But you're telling me is had that same issue and same process and we had it a lot. Previously we had a player that was an early developer. He's now 20, 21 and playing for Xxxx city, but at under for teens and the fifteens he was to worst Physical player that you could come across. He was over 6ft maybe at the time off the back of my head and he had no balance, no coordination and he was struggling, not to meet the day to day program. He was never injured anything like that or any severs he just struggled to meet the actual speed demands of the game. But overtime and keep working with him in terms of the S&C aspects was actually just give it time. Give it time. Your body will adapt and hen also the structure of the program that he put in place in terms of right. Let's get your balance coordination correct. We put into the program that this is within all the age groups specifically was a right to load protocol. So we had like a right to load protocol we took off Dan Baker and it was basically a set gym testing schedule And the gym testing scheduled basically just allowed us to give us a bit more of an idea as to what physical capacity players can reach within a gym session. And so, for example, it was how many press ups can you do in 30 seconds? If you can do more than 35, there's five points. If you do which 30 to 34 its 4 points and so on and then overall, they had the cumulative a score of 6 exercises, that would show us what muscularly they can tolerate in terms of load. So, then that allowed us to understand, right? OK, they can do strength training. Whereas other players where you going right? Y'all nowhere near this? This is your target, but This is why we've got some. Maybe drawback to 'cause you were weak in your core on the core exercises, the core exercises to one, but let you down the most. So we need to get more core exercises in into isn't individual. Some player might have not been able to achieve so many squats in 30 seconds so OK, so we need to practice more dominant movements. So then that's how it then became teams and bit more individuals to then testing and Understanding that the player.

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INTERVIEWER

Yeah, so 'cause you just give some details on the positive experience you had with bio banding, would you like to maybe give an example of when bio-banding was deemed as successful?

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Interviewee

Yeah, and yeah I think weirdly, the players that mostly struggled where the early maturers And especially centre halves and goalkeepers And there's a lot of people. Look at him and go over there. He's a big boy. We need to get put some weight on him. Now he's 6 foot 2 6 foot 3 where as actually you can look at its face and already see he's nowhere close to having a beard on his face. So there's already that misconception of yes, he's tall. And yes, he's grown. But actually, physiologically, he's nowhere near ready and. And that's where we had to do. We did like a bit of genetic testing to just like find out where players actual physiological age bracket and that just sort of allowed us to go through that sort of transition period to sort of go through individuals and understand what their actual needs

are. We sort of like it went through before we had a set structure as to how we usually did the programming in terms of. OK, we're going to do is 75% week and then an 85% week in terms of intensity and build that up but especially with the ones that are rarely maturers And straight away there had to be more of a focus on the balance and coordination rather than going straight into sort of strength training and S&C training, especially if they could tolerate a load with them early maturers, they're mostly can tolerate the load, but the where not, the most explosive players And that's where majority of time, our research was going well, OK, let's make sure they get all the fundamental movements, corrects and get their motor skills as perfect as we possibly can. And then that can be a ticking the box And I think that those have been the most successful places like sort of you early mature players, that have come through the system and used io-banding. And I think there's still the common conception is your late maturers and mainly because it's getting down to decision time makings and certain clubs will always take bands of account and go OK. We'll take the pump because as a character and as an individual we know you're a good person and worst-case scenario you'd nowhere near it is a scholarship player but we know that you'll be a good influence around over teammates, but maybe I've got more high potential then then that player in themselves. And so I think it's understanding more than anything is when you've got coaches, especially with the late maturers, is to make sure they've got fully understanding of the player, not just from a technical tactical point of view, but all four corners of the FA spectrum in terms of their model and most probably the late maturers. I think now, especially now 'cause then amount of work that's gone into biobanding and amount of where that goes into coach education, not just sport science and medicine. I think them specific types of players will come into it. You'll start to hear more successful stories out of that when it comes to late maturing players. And obviously there's been quite a lot about the way Marcus Rashford had worked and been at man united and Scott Mctominay, and I think the late maturing players suffer if they're at a smaller Academy, especially if you cat 2's cat 3s because of the time and the less staff that can put more time into that individual player. I think when you've got to be fair like the club that I'm at a cat one There's no excuse for any player to not have any individual work, whereas when you are at, cat 2s cat 3s you mostly coach to the masses of groups rather than coaching necessarily to that individual. There, given their programs as individual but they are not necessarily given the one on one time. Just because the limitations of the Academy and itself as to when it had got to coach and how you take that out of the program.

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INTERVIEWER

One person that came into my head based off that is Harvey Elliott at Liverpool and how they're allowing him into the fast team. Like you can see when he's playing, that hes not as good as rest of the senior, but then there is that sense of he will get there eventually, and he probably wouldn't be nowhere near as good as he currently is if they are not given the opportunity.

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Interviewee

Yeah, that is one player that's done bio-banding and has had no issues whatsoever, and bio banding mostly didn't fit within his bracket, just 'cause he was so technically good. So he was a late maturer, which we all knew, but technically tactically. He was by far the best player. He physically was actually best 'cause he was a bit of a street kid so he was always jumping around causing trouble on the streets and actually bio banding mostly had no positive effect but mostly allowed him early doors to go and play against all the kids. So once we establish like the older age groups and in terms of the bio banding situations, in terms of percentage at height, this kid was mostly 84% and he was playing easily with the 98/97% and the coaches knew he was a late maturer But then it gives them more of a positive influence because it actually means they'll stick with him for a long time. So I think, yeah, I think at 14 he got like in early scholarship just because the Club knew straight away he's going to be a good and under 18 player and has got high potential to be a 23s player and so on. Are you a xxxx xxx fan?

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INTERVIEWER
No I support xxxx myself.

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Interviewee
OK well xxxx is now the one that's pretty much bagging all the goals for all city.

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INTERVIEWER
Oh yeah, well I did used to live on the same street as xxx so I grew up literally playing football with him.

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Interviewee
I am so, you know, it was a bit of a rough and ready small kid

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INTERVIEWER
Yeah, yeah.

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Interviewee
But no, so he's like literally most probably one of the late maturers, that had a successful period going through bio-banding, but never had to have that individual specific attention, and most of the ones that have maybe needed specific individual attention, which I think we might have promised them. Still trying to think oh. Yeah yeah, a kid called, erm I can't remember his name but he came from was at Leeds United or Man U, well Man U had released him but Xxxx were technically loving him as a player. Actually I think he's called xxxx. I think he's at xxxx playing in league two but he was very late, maturer and he came to us about five foot five as this thin stick. And by the time we got to under 18's. He was 6 foot 1, 6 foot 2 and he only came to us at the start of under sixteens, and so someone that mostly came into the system from another club who got released and they said obviously they've got someone else better. He came into us and as soon as we tested his maturation status we was like mate you have still got another five inches to grow and then that was someone where we did a lot more individual specific, where mainly because the coaches buy-in is that he was very good technically ... I mean a lot of time and you get especially in Cat 2 cat 3, you get afforded a lot more opportunity to work individually with players. If there's a capacity where they are physical limited but the coaches and the hierarchy think of them as a very high potential player technically and tactically, and that someone that did fairly well, that was someone that didn't necessarily have any injury implications or anything like that, it was more or less he just needed strength... and who had quite fairly good coordination and balance, but had no strength in his legs to move, and so he was literally on a three-day gym program for six months and that was accumulation of two strength based sessions and then very lower body plyometric session and ultimately now he's playing professional football so that's definitely someone we can count as a successful one.

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INTERVIEWER
Yeah.
Definitely, that's what player are there for isn't it to trust in the process and make it big time. Whether that be over a shorter or longer period. Following on, in terms of bio banding, which maturity method, maturation methods do you use and why?

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Interviewee

Yeah, to be fair I've used both just to give me a full picture. And so obviously you've got your mirwald equation and obviously you've got also early one. Erm oh, it's gone from the head.

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INTERVIEWER

The Frances method?

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Interviewee

Yes, yeah, so we've got percentage adult height and then we've got maturity offset and in terms of Organization of bio banding we do a lot more with in bio banding is going OK. This is your age groups. Obviously, there's the cut off point of knowing like 92%. It's usually PHV but also we used to maturity offset to give us more of a regular indication as to when that's going to specifically be around. 'cause it gives you a certain date of how it's going to be about six months or six months before or six months after it, and so we do try and use both of them. But more or less we've used the goal, standards percentage, for adult height.

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INTERVIEWER

Erm and in General when using these methods do you lean towards or have you leant towards matching or mismatching players during trainings etc?

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Interviewee

Yeah, erm not necessarily and I said especially at that point. We just sort of went straight and strict with it and I think over time mostly doing that format would mostly work. I think it's just understanding ... Like I said, the organizational perspective and how we can do that longitudinally as well.

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INTERVIEWER

Well again the next question is just kind of general, and it's just if you feel that bio banding has proven useful for your club?

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Interviewee

And yeah, I think it did. I think especially when you look at certain players that managed to get through the system and I think a lot of it is. If it's organized and structured to fit in logistically with how players can be there on time etc. You can get a lot of benefit out of it, especially from understanding the players to where they're currently at and then put in targets and programs in place for the end goal. And I think if you doing it once a month. I don't think you necessarily ever get the benefit out of it, and I think in terms of like the physical development, that you can get out of players by being specific for the on field development, but it can get with kids and have that time and to teach them motor skills and then the specific fundamental movement. I think it's a really good concept that you can put into play and technically, tactically it can help players get more time and ball, and to make sure they get more understanding that perspective. And I think the battle for moving forward is always going to be making sure that coaches have that discipline to understand the process that's in place.

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INTERVIEWER

And just following on from that. Is there an example of a session where bio-banding has provided a new challenge?

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Interviewee

The challenge mainly has been what does the group of kids need as individuals but still prescribing it as a group. And I think that's the main thing. So obviously you have like your end goal, but then working backwards off that so you've got like the big macro cycle in place. And when you look at your mesos and your micros, it's then going OK. So how can I fundamentally structure it to make sure there's a relationship of each session without the kids realising there's like a long term out put out of it, if that makes sense, and I think obviously, if you're trying to teach kids fundamental movement skills and motor skills how do you try ... I'm not saying I don't find it necessary challenging, but a lot of people find it a challenge ... We're doing bio-banding, but a lot of the work that I'm doing on field with them is in December. But obviously when it's December we know how cold it is. You want him to practice being on single leg standing. How do you keep them warm and motivated to keep doing it when it's December period so it's having them sort of concepts and understandings? I think of knowing the environment and how we can just keep that relatable to the player, and obviously when we talk about bio banding, it's mostly to try and make it into a an easy place of assessing players and understanding where they're at physically, but also is making sure of it's a challenging process within that long term process of bio-banding I think that's mostly the newest and hardest challenge of that is making sure that you've got that consistent program that comes into place and making sure there is a longitudinal process to it.

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INTERVIEWER

And even though new challenges are often the best thing for athletes to face. Do you think it is important to like continually add challenge for their talent development?

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Interviewee

Yeah, massively, I think that's the only way you can assess if there's any improvement, and I think when it comes to the talent development wise and I think putting on like set specific test. So like we've done it where we've gone a bit like fifa, you know before the game and you have like specific set challenges that you can just play around while to games loading. We've done little things like that from a football technical perspective and then we've done. Obviously you can have your physical benchmark testing that can allow you to understand where players are at physically. And then I think if you give that type of notion of making bracket players into gold, standard silver, standard bronze standard players, which is what we've done in the past, and I think that's something that can definitely work longitudinally and prescribe the program that you try and give to players moving forward.

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INTERVIEWER

So with this in mind, do you feel by abandoning offers an advantage over, say, traditional approaches?

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Interviewee

I think it does and I think. If you're going to use bio-banding, personally it needs to be consistent and regular. Some people said about oh yeah, we try and do it once a month and I think are you really gonna get anything out of doing that once a month and its when people say that once a month I go, OK, well what's the structure of it and it never seem to be as good of a structure as part of that monthly concept, so I think it's going to be beneficial if you actually got structured map in a frame where it can be worked off and be flexible within that structure. I think if you're just going off the cuff just to say that you're doing it, it definitely won't work.

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INTERVIEWER

Yeah, which I can understand really 'cause it sounds as if they're just saying, Oh yeah, we do bio banding and that's kind of it. Whereas if you get the clubs where they can bring up the entire structure and everything about it, then obviously there is going to be a difference and so the next question is do you feel bio-banding places much emphasis on specific groups of players, so this could be like for instance your late, maturers.

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Interviewee

Yeah,

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think.

I think, especially with your thirteens to year fifteens, it has a massive big effect. I think you'll always have a problem, to properly structured bio-banding within the 16 age group. Mainly because they are so close to getting their decision and arguably Clubs already know what assessments they have already got off players by that point. Because for sixteens, it's only till Christmas and then majority of time then under sixteens are then trying to be an under 18s player so then it's like well actually You can still do individual work to get ready for an Under 18 program, but In terms of actually fitting an under 16 thats, high quality, to then potentially going to bio-banding session playing with under 14 player is that can be beneficial for under 16 player most probably not, so I think, especially within the fourteens fifteens and the thirteens age group. I think it's the most beneficial you can get out of it, especially when they're all in that window of opportunity having the sixteens they're all going to be specifically targeted to making sure they're ready for under 18 season and making sure Majority of them players are already out of that sort of PHV output but you might have the one or two that might need the bio banding, but I would mostly saying majority of the 16 players don't really need that sort of in flux and influence of that program.

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INTERVIEWER

And just off the back of that again, do you feel like this could run the risk of neglecting certain players? So say for instance bio banding can show there is this 16 year old who could be playing for the under 18s, but then you have this 16 year old who is maybe stuck in the middle. He doesn't play up and he doesn't play down, so do you feel it runs the risk of neglecting any type of players?

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Interviewee

Yeah yeah It can, and especially with players who are not thought of as highly it can definitely have that effect, but I think what you've got to do is. As an Academy is making sure that you can do the best for each individual player And like I said, mostly at cat ones, you can do that 'cause the amount of staffing structure thats there. But maybe at cats 2s and especially cat threes 'cause of limited staffing structure. It's very much more difficult to try and make sure the best intentions are there for every player, and most probably, when it comes to Cat 2 cat 3s The programming itself can be made just for that one individual player, that you know, that it's gonna have the highest reward for the academy and getting first team appearances so it means do you put all your eggs into one basket with that one player Or do you put it into a two or three that you think have all got reasonable chances, but then like you say, you are always gonna have the possibility of the lower end players who have a very slim hope of making it. Especially at cat 2s and cat 3s. They're not going to get that specific individual support and it's understanding well actually do they have a better responsibility of playing for the under 15s rather than the under 18s age group. So it can definitely have a neglect. And but I think most practitioners will always try and put that individual development at the forefront but, depending on your circumstances in the club circumstances, sometimes If there's that one gold shining nugget that you've got within your group out of every three years, the club more or less is going to make sure that that player will have the best opportunity they can to make the Academy morning.

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INTERVIEWER

Yeah which is the sad truth about football and academies, there is always going to be all these talented kids but that one kid which stands out just that little bit more regardless of which category of academy you're in, and it's almost always certain he's probably going to be the one which makes it big time.

The next question is, are there any specific you know like experiences or things which stick out for you like stories of kids experiences or anything which is a negative experience of bio banding or even challenges you have faced yourself?

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Interviewee

Yeah and I think that one of the main challenges you get is players erm perspective of it. I think you'll always get a parent's challenge from it and especially if they have a kid who struggles in their own age group. So like going back there was a kid that had like the age of like 13.8. I think it was in terms of maturity offset and he was like 84% percent 85% and he was still under 16s. He had to get so basically like I said, he only had six months left with us so the club is trying to be patient as they possibly can to understand whether he was still technically good enough for the required level 'cause we already knew that more than likely he didn't need a two-year scholarship. He mostly needs a three-year scholarship. If he was given a chance to succeed and it got to a point where at under 16s everyone is telling you that he needs to work within an age group that fits his own criteria. But the same time, there was no guarantee that technically he was good enough...and which was like I said, if coaches don't think a player isn't necessarily great technically then they're not really gonna put too much emphasis on his individual development and yeah, so the bio-banding aspects were so OK, we don't know if you are good enough. In general, so we're going to play down. So if you then ... if you do move him down and then don't offer him a contract parents are going well he didn't let him play with players his own age group or, they're not as good as the players that he should be playing with, do you know what I mean. So there can be that type of thought process and perspective off it off parents who arguably use it as an excuse if there kids not good enough. So even if you're trying to do right by the kid of by, OK, we're going to do this bio-banding process, but actually we're not going to keep this kid. It leads to that perspective of, well, actually you dropped him down a level but then coach will go well, actually they didn't do well enough at under 15, and under 16s but bear in mind we already said that is age group was 13.8 then technically he should have been in the under 14 games But rules don't allow you to do that, so then it's going right. OK, so you can. You can make friendlys but then when you put that friendly on, do you do that during the week when you was meant to have bio banding? So then it's like, well, so where is that balance of OK? You need to prove a point that you can have that training matchday perspective But then if you're trying to get this player through to get really good understanding and assessment of that player you'd put him into a game situation so it can prove a point to either not keep him or to keep him and to continue the process or do you keep him into an age group where arguably there's still no guarantee, that it'll actually improve him as a player? It might improve him physically, but if he's technically and tactically way off it from a football perspective is it gonna work out for him and that's something that was a negative experience.

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INTERVIEWER

So to your knowledge, in terms of the barriers you faced or barriers the clubs have faced, do you feel like these are barriers which each club faces? Or do you feel like it was specific to your club or?

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Interviewee

And I think I think each category has its own limitations. But I would definitely say that most cat one clubs 'cause of the amount of staffing thats in place if they

want to do bio-banding, they could do bio-banding if they wanted to and because all cat one clubs are fairly powerful clubs in terms of the big organizational structures, there's a lot of big big teams in there and they can arguably do what they think is right for their program or that individual player without very little fault, in terms of the organization that's required for it to happen successfully So for example most coaches, that will be with the ydp. You've mostly in cat one you've already got minimum 6 full time staff members within four age groups, and that's a minimum without even thinking about part time staff members When you're looking at cat 2s, you're may be looking at maybe 3 full time members that can support it full-time with maybe one or two part-time members of staff Whereas the cat ones who maybe have four to six part time members, so you can already have like 10 staff within that bracket When it comes to cat 3, you're looking at minimum or maximum 3 as a part time and full time, so I think that's like the biggest problem you can get is if the clubs really limited in terms of staff And they've got other necessities that they think is more important, and I think that will always have a massive influence to whether that can be in fluent inputs into a program long term. I think until the EPPP changed its rules and says you've got to do and prove that you use bio-banding. I think that's the only way. Then all structures would change it. But until then, it's still a fairly subjective method for hierarchies to whether they think bio-banding is required or not.

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INTERVIEWER

Erm so maybe not specifically based on the differ categories, but if you have any thoughts on other barriers has there ever been a time, that you have thought that like there be a simple way to ease some of the barriers in any sense.

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Interviewee

And yeah, I think when you use the physical benchmark testing, that's an easy go to. And 'cause you've got numbers, you can categorize what them numbers mean in terms of good average bad. Then can categorize that based on other players within over age groups and and that's a very easy way of showing positive changes when you have used by abandoned and also it can show negative changes for when someone needs more extra assistance and support. And I think using the benchmarking process is the best and easiest way. Obviously when you collect heightened maturation and show in training availability and matchday availability, where 'cause we've managed to use bio banding to a degree of showing that we've been able to understand the individual and what loads need within them stress responses. That's mostly probably the best way from a sports science medicine perspective, and I don't necessarily think there's a way and a long term study yet to show that players can technically and tactically improve from that. I know there's a lot of coaching observations that had been done whether that allows players to get more touches or to have more strikes. That type of thing, and also there's a lot more GPS metrics showing that OK players can perform more accells or decells through the sessions, but for a coach from a technical tactical perspective, what does that mean? Does that mean they're getting more touches on the ball? Does that mean they're making more successful passes? Does that mean they're able to turn and play quickly? Are they playing off 2 tough 3 touch? The type of things, mostly are the next barrier that needs to be broken down I think.

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INTERVIEWER

Again, but this time using your result, you have highlighted in terms of the early, on time and late maturing players that it is the early mature was which have the least benefit. So why is it you think that the early maturers have the least benefit from bio banding?

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Interviewee

I think to be fair it's because they will always get pushed more to play up an age group.

And then sort of bio-banding. Arguably, supports that process. So if you've got someone that's physically dominant from a game perspective and a training perspective, and rather than actually put them into a game and not sure if they are going to be able to handle an older age group game with maybe a two year age gap difference or a year gap difference bio-banding can be quite a nice sort of way of bridging that gap But then you'll get a lot of coaches go well, he will be ready for anyway, because there will be some kids, that have a less age group of him and be like yes. However, the unreactive and obviously the mentality. It's completely different. So does it allow them to naturally have a small gap in terms of the next step that allows early maturers to have that physical component to be tested and also allows them to arguably understand where they are at technically and tactically?

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INTERVIEWER

So these next question are on the multidisciplinary application of bio banding so just to begin, are you able to describe how you bio-band, is it in match play, training or s&c for instance and why? This could be different for all physical, technical, tactical, development stages and even injury prevention if that makes sense?

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Interviewee

Yeah. Uh, so in terms of the sessions, it's always been on field that I've used bio-banding for, mainly because of the way the structure of the program is under 16s, 15s, 14s 13s and so on. So it's all that traditional route. And from an S&C perspective it would be a lot better to have it as one group, but from organizational perspective It's very difficult to then get an u16 in at 5:00 o'clock. Then to have under 15 in at 5:00 o'clock, if they're already written off for separate programs at school. And so if you think of the school program, usually under sixteens program means they're in the gym Monday to Thursday, and usually fifteens might be Monday and Wednesday. So it's just like there's a little light confrontations and conflicts of that type of nature, but doesn't allow the s&c perspective Uh, I think if it when it comes down to do anything else. I think in terms of how actually that structure of different age groups in the building at the same time having, for bio banding necessity, it's fairly difficult and based on all individuals. So it's always been on field development where majority of kids will always be there for the training sessions. But they can't always make a gym session 'cause either the gym times are an hour before training ie at 5:00 o'clock and the kids are finishing at 4:00 o'clock so they're already in a rush to get back and then if you do it after training the kids are already knackered and it's going from 7 till 8 and they've already been at school since 9 so then its understanding what's best off in terms of multidisciplinary. I think more or less the way of implementing bio-banding is mainly on field and especially from an organizational structure point of view, 'cause the kids are always going to be around the field and if you've got kids, that necessarily know we don't meet the structure or the nature of the normal day-to-day lifestyle that the program offers, and that's where you've got to be individual for that player.

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INTERVIEWER

Again the next one is using your survey results as you have highlighted that, uhm, you feel players should be introduced bio-banding from youth development Phase but I know you've already covered this quite a lot so we can briefly just cover if there was anything more you'd like to add on it as we're coming to the end of the question and these questions are all just little summary questions for the interview.

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Interviewee

Yeah, I think for youth development phase there is definitely a way where if you are a fast year Scholar. I.e. a 16 turning to 17-year-old. That itself is a quite hard process physically, and so a lot of clubs do

under 17 fixtures So it's a combination of under 16 players and under 17 players combining as one age group, which I think bio-banding g can definitely help within that, especially from an field perspective 'cause you've already got players that are in this building full time. Their programs are individual anyway for their own necessities, but potentially for matchday opportunity. I think it's a very good one And to potentially use, but like I said, I think most of the time, 13, 14 and to 15s age group and looking these sixteens that may be late maturers bio-banding is like an excellent opportunity to get any sort of physical and technical development out of them and how that's done is mostly done at over clubs based on their own organizational structure.

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INTERVIEWER

So, we've come to the last question now, which is again from your survey. You highlighted that you were more likely to implement bio banding after the survey. Is there anything you can add on why you think that is?

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Interviewee

Erm mainly because I've seen the benefit that you can get from it in terms of when I was at Xxxx and I think there's still definitely more work to be done to sort of understand the technical and tactical development that players can get from bio banding. I think that's the main issue now. A lot of it's descriptive, but without any numbers on to say this is what a player who normally gets this in a under 16 is now getting this in an under 15 training session. So when put into a bio-banding development group, this is how many touches he gets? This is match strikes he gets and how many successful passes and having that number on it, I think that's where if I was going to bio-band I would want to have like an in-house study of that type and I think a lot of time now the physical development players can get out of its very well known. But I think for future longevity of the bio banding itself needs to look at that sort of focus and the reliability, reliability to the sport.