

## **Supplementary Information**

It ain't what you do. It's the way that you do it:  
Is optimising challenge key in the development of  
England's super-elite batsmen?

# Quantitative Interview Schedule, Figures, and Appendices

## Interview Procedures:

### ECB Attainment of Batting Expertise Project

#### Introduction

This interview is designed to provide information about your long-term involvement in Cricket plus background information about your developmental sporting history. It consists of four major sections. The first section focuses on demographic and family information. The second section deals with your general participation in sporting activities. Thirdly, I ask about developmental milestones and performance indicators in cricket throughout your development. The first three sections will be a lot of number collecting, so please do bear with me for the first hour. The final section centres on your specific practice activities and time commitment to different aspects of your cricket training. This is where I'll be asking about the bulk detail of your practice, and I'll try to keep us both on track in the early stages so that it moves swiftly, and I don't take up more of your time than is necessary.

## 1. Demographic and Family Information

### Personal Details

#### <Section 1 – Demographic Family>

### Homeplace Throughout Development

I'll now be listing some ages to you, starting with 6 up to 22. Please could you tell me (from earliest to most recent) all the places where you have lived and indicate for each the approximate dates/years you were at each place? For each place you lived indicate if it was your family home and if your home location was considered rural, small town, small city, or large city.

[NB: If you were living away from home for a portion of the year at boarding school etc. please note this in the next question rather than this one.]

#### <Table 1.1: Places you lived>

### Education Throughout Development

Similarly, please could you list to me (from earliest to most recent – by age again) all the schools/colleges/universities you have attended and indicate for each the approximate dates/years you attended them. We also ask you to tell us if the place you went to school was a “designated” sport school and if it was the principal place where you practiced sport.

#### <Table 1.2: Places you went to school>

## 2. Activities throughout the Lifespan

### Involvement in Sports

#### <Table 2: Involvement in Sport>

In this next section, we would like to focus on sports that you were involved in throughout your development – this includes all sports that were either led or not led by an adult. Firstly, I'd like you to look back over your entire life and list any type of sporting activity that you engaged in on a *regular basis* from the earliest point you can remember. Please list to me ALL the sports you participated in starting as early as age 6 and continuing up until age 22.

#### < Table 2, fill in the first column, “sports”>

I would now like you to tell me ages from when you started playing the sport to ages where you stopped. You may have stopped temporarily, in which case please also tell me when you restarted. *(Interviewer place an “X” in any of the boxes corresponding to ages that interviewee was NOT involved in the sport listed). For example, if the interviewee mentioned football, but only played from age 6 to 12, put X's in boxes corresponding to ages 13-22. Do this for each sport listed.*

#### <Table 2, put an X for each age that interviewee was NOT involved in the listed sports>

Now, considering that cricket is your primary sport, I'd like you to tell me which two sports were your other 'major' or 'significant' ones.

#### <Table 2, put an \* to identify the two major/significant sports>

O.K., for the rest of this section we are going to focus on Cricket. Firstly, starting from when you began playing cricket at age \_\_, can you define when the (1) preseason, (2) midseason, and (3) off season were at 'X' age. It is important that you tell me when these changed during the different ages as you progressed in your development, as we go through this in due course.

#### < Table 2 Fill in time of period for cricket >

Now can you recall a typical week for your cricket involvement at this age and tell me the number of hours you were engaged in cricket practice across the (1) preseason, (2) midseason, and (3) the off season periods that we just defined. Please bear in mind that practice in this case is outside of competitive matches and does not include s+c/fitness work. Practice could mean any of the following; individual practice without a coach, individual practice with a coach, team practice without a coach, team practice with a coach, plus any other type of cricket practice that you may have experienced.

#### < Table 2 Fill in practice hours/week for X sport listed>

Now, still at age \_\_, I'd like you to tell me the number of hours of structured cricket competition you engaged in during a typical week at (1) preseason, (2) midseason and (3) the off season.

**< Table 2 Fill hours in competitive matches for Cricket >**

**Question – Deliberate Practice vs. Deliberate Play (All Sports)**

**< Table 2.1 >**

Before we move onto the next section, I have a more general question about your participation in all of these sports you have mentioned (as a whole).

Between the ages of 6 and 12, firstly, I'd like you to consider the amount of time in that typical week that consisted of practice activities that were effortful, focused, goal directed, and not inherently enjoyable (deliberate practice). Now, I'd also like you to consider the amount of time that consisted of practice activities that were fun, voluntary, developmentally free from specific focus, and provided immediate gratification (deliberate play). Now please split the proportion of time (in percentage) of your typical week between these two practice types for when you were between 6 and 12 years of age.

**< Table 2.1 Fill proportion of Deliberate Play and Practice between ages 6 and 12 >**

Please can you also split the proportion of time (in percentage) again between these two practice types (deliberate play and deliberate practice), but now for when you were between the ages of 13 and 15?

**< Table 2.1 Fill proportion of Deliberate Play and Practice between ages 13 and 15 >**

### 3. Developmental Milestones, Performance Indicators and Maturation in Cricket

#### <Table 3 - Performance at different ages>

In this section of the questionnaire I would like you to focus specifically on your development in cricket. I would like to get a sense of your development in cricket by assessing different milestones that you may have achieved. I am going to be asking you questions across specific developmental stages (ages) which will aim to measure your level of performance and challenges faced as you developed as a cricketer at each stage specified. The first developmental stage will be by age 16. I will now ask you a series of questions associated with this age group cricket, and then we will repeat this process for by 18 cricket and finally your cricket by 22 (having become senior).

Firstly, by 16, could you please tell me what age you were when you were **first** selected to play at the highest level for the following representation levels of cricket, there may be some that do not apply to you, in which case just let me know: *(Interviewer reminds interviewee that these questions correspond to when they were by 16/by 18/by 22 years of age and subsequently reports the age that corresponds to each of the levels listed in table 3).*

- ➔ School
- ➔ Club
- ➔ County 1<sup>st</sup> XI
- ➔ County 2<sup>nd</sup> XI
- ➔ Regional
- ➔ England

#### <Fill in Age Group>

I would now like to ask you about the technical challenge of playing at this level when you were first selected at age \_\_\_\_\_. E.g. thinking about decision making and stroke production aspects; for someone playing up an age group the technical challenge might be producing the same stroke to deliveries that have gone from 75 mph to 85 mph. How technically challenging was it for you at this level? To do this, please rate challenge from 1 – 10, with 1 being the easiest rating and 10 being the most challenging rating. *(Interviewer lists individual cricket age groups the interviewees had previously reported playing in and simultaneously reports the level of challenge noted for each age group in table 3).*

#### <Fill in Technical Challenge>

I would now like to ask you about the psychological challenge of playing at this level when you were first selected at age \_\_\_\_\_. Using the same example of going from facing 75 mph to 85 mph for someone playing up age groups against physically bigger players, the psychological challenge in this case might be the fear of getting struck on the head by the ball. To do this, please rate challenge from 1 – 10, with 1 being the easiest rating and 10 being the most challenging rating. *(Interviewer lists representation level and age selected)*

**<Fill in Psychological Challenge>**

Next, I would like to ask you about your ability compared to your peers at each cricket representation level. Specifically, in your opinion, at what age did you become one of the best batsmen on your team at U... age group for ... representation level? *(Interviewer lists the necessary age groups/levels and then reports the age stated by the interviewee for each age group/level in table 3).*

**<Fill in one of best batsmen>**

Similarly, I would now like you to tell me in your opinion, the age at which you became the best batsman on your team at U... age group for ... representation level? *(Interviewer lists the necessary age groups/levels and then reports the age stated by the interviewee for each age group/level in table 3).*

**<Fill in best batsman>**

Please tell me your age and the rough number of innings it took before you achieved your first noteworthy/significant positive performance at this age group. This could be related to an individual milestone or your contribution to the team at a significant period, and is completely open to your interpretation...Some examples might include achieving your first 50, first 100, or your first successful run chase to win a big competition *(Interviewer reports the number of innings detailed for the specified age group/level of cricket in table 3, interview recording will also be used to collate what perceptions of early significant performance are categorized as).*

**<Fill in first significant performance columns>**

I would now like you to tell me about your physical size in comparison to your team mates at this particular age group. Please tell me if you were of greater physical size (G), smaller (S) or equal (E) to your team mates/cricket peers when initially selected onto this team. *(Interviewer records the responses related to physical size on Table 3).*

**<Fill in physical size >**

Based on your perception of what good vs poor facilities looked like during your development, please tell me whether the facilities which you practiced with at the U... age group for ... representation level of cricket were poor (P), below average (BA), adequate (A), good (G), very good (VG) or excellent (E). *(Interviewer lists the cricket levels associated with the age groups relevant to the interviewee and then reports interviewee's perceptions of facilities in table 3)*

**<Fill in facilities>**

Based on your perception of good and poor practice, I would like you to tell me about the quality of coaching you received from your principal coach (most contact time) at the U... age group for ... representation level of cricket. Please rate this as poor (P), below average (BA), adequate (A), good (G), very good (VG) or excellent (E). *(Interviewer lists the cricket*

levels associated with the age groups relevant to the interviewee and then reports interviewee's perceptions of coach competency in table 3)

**<Fill in coach competency>**

Lastly, for this milestone, I would like to explore the development time (in months) that you missed as a player due to prevalence of injuries by age 16. Please note that these can be cumulative, therefore feel free to take some time to think about this. By age 16, if you never had an injury, please rate fitness at 100%. *If you did suffer an injury try to rate the percentage of full fitness for me (i.e. completely unable to practice or compete in this time would receive a rating of 0, missing half the time would receive a rating of 50% and so on...).*

(Interviewer lists the by 16, by 18, and by 22 years of age and simultaneously reports prevalence of injury for each in table 3 and records nature of injury).

**<Fill in injury time/nature>.**

**Interviewer repeats the above section for by age 18 and, finally by age 22**

**< Section 3.1 – List of Questions on Excel>**

**Milestones/Obstacles**

**<Section 3.1>**

Finally, for this section, I would like get a sense of your development in cricket by assessing different milestones that you may have achieved together with different obstacles you may have overcome. For each of the questions I ask, please tell me the age at which the specific event occurred for you. If the event did not occur then please tell me so.

## 4. Practice Activities in Cricket

What follows is a section in which we want to trace your involvement in the different types of practice possibilities during your cricket development. The following section includes segments for the related practice activities you engaged in, the proportion of time spent practicing per week, the intensity of practice, and the nature of practice activities. Specifically, we will be focusing on a typical week's cricket activity across each of the three age milestones we focused on in the previous section. *(Interviewer reminds interviewee of the three different age milestones; Ages 16, 18 and 22.*

### **MILESTONE 1: 16 Years old**

Firstly, let's start with when you were playing cricket at 16 years of age. If I refer to your responses in section 2 of this interview (refer to table 2 and look for where the most hours of practice are listed for Cricket at age 16; pre, mid, or post?), I can see that at 16 you stated that most hours on practice were in the .....season. So, I'd like you to consider the rest of this section in line with a typical week's practice at that point of the season when you were aged 16, which may include any of the following; individual practice without a coach, individual practice with a coach, team practice without a coach, team practice with a coach, plus any other type of cricket practice that you may have experienced.

### **Deliberate Play vs. Deliberate Practice**

<Table 4.1a>

Firstly, I'd like you to consider the amount of time in that typical week at 16 that consisted of practice activities that were effortful, focused, goal directed, and not inherently enjoyable (deliberate practice). Now, I'd also like you to consider the amount of time that consisted of practice activities that were fun, voluntary, developmentally free from specific focus, and provided immediate gratification (deliberate play). Now please split the proportion of time (in percentage) of your typical week between these two practice types.

### **Physical Fitness**

<Table 4.1b>

Still thinking about that same typical week in the ..... season, how many hours would you spend on specific physical fitness/conditioning training? This could also include any specific fitness sessions you did during your cricket training, or any of the other sports you may have been playing at age 16 in the .... season.

### **Non-physical practice hours per week breakdown**

<Table 4.1c>

O.k., now considering your typical week in the .....season when you were 16, please could you tell me how many hours during that typical week you engaged in mental skills training practice (e.g., visualisation skills, working out pre-performance routines, relaxation or concentration techniques etc.).

< Table 4.1c Interviewer subsequently records mental skills training hours >

### **Vicarious Learning**

I would now like you to recall how many hours during the typical week you engaged in learning through watching cricket (e.g., watching cricket on T.V., watching other cricketers practice and/or playing in order to increase you own skill).

**< Table 4.1c Interviewer subsequently records vicarious experiences hours >**

**Conveying of Information**

**<Table 4.1d>**

Now, I'd like to find out about what your physical cricket practice was like for you during the same typical week. When recalling information, I'd like you to draw from all the different practice possibilities you experienced. For example, individual practice without a coach, individual practice with a coach, team practice without a coach, team practice with a coach, plus any other type of cricket practice that you may have experienced during that typical week

Taking into consideration all of the practice you did in a typical week when you were 16, I would like you to first consider how instructions about technique, strategy, and your performance were presented to you.

Was that information ever presented in verbal form?

**<If YES interviewer places a "Y" in conveying information column, if NO places an "N">**

Was that information ever presented via a demonstration?

**<If YES interviewer places a "Y" in conveying information column, if NO places an "N">**

Was that information ever presented in video form?

**<If YES interviewer places a "Y" in conveying information column, if NO places an "N">**

**< Table 4.1d Fill in above conveying information practices>**

Now please can you split the individual proportions of practice time where the instructions you received about technique, strategy, and your performance were given 1) verbally, 2) via demonstration, and 3) via video? (*interviewer only asks about those that were indicated in the previous question*). Please use 100% as all of the time and split that way. (*Interviewer records number in Table 4.1d*).

**<Fill in conveying information prevalence Table 4.1d>**

## **STRUCTURING PRACTICE**

### **SHOT SELECTION <FIGURE 1 & FIGURE 2>**

I'm interested in your practice structure and I've got a grid here that I'd like to go through with you. Specifically, I'd like to focus on your shot selection, we'll come onto deliveries you faced later. But for now, I'm talking purely about what your shot selection looked like at this age. If we are going to run over our allotted time, it's going to be because of this section, so I'm going to try and keep it as tight as possible. We need to start by putting percentages on this line here, and then in each of these boxes, all relating to your batting practice sessions and I'll guide us through this.

#### **Blocked/Random**

I'm interested in finding out about the proportion of time you spent:

- (a) Practicing a shot repetitively in a block period before moving onto another and then another shot.. and so on.
- (b) The practicing of different shots that are mixed up, randomly if you like...
- (c) Anything different that might have happened in-between

So let's go back to the start, to times during batting practice where you'd be practicing shots in isolation in blocks, for fixed periods of time... What percentage of the time would batting practice have looked like this at age 16?

What percentage of the time would you have practiced different shots that are mixed up, randomly if you like, meaning that generally no one shot would be the same?

OK, so you have \_\_\_\_ % of your batting practice left that is not filled in at the moment. Do you have an idea what the other percentage would have looked like?

*Prompts for interviewer:*

*Was it always that random, or would there be some of the time where you practiced 2 or 3 of the same shots together before moving onto a different shot? If so, how often would it be like that \_\_\_\_%?*

*Where you practiced shots in overs down here, were there times where you might have practiced in mini overs (i.e. 4 or 5 of the same shot) before moving on to a different type of shot in that session? If so, how often would it be like that \_\_\_\_%?*

#### **How Random? (Number of Shots)**

Going back to the time times where you'd practice different types of shots in a mixed up, random fashion... How many shots would you typically practice together during sessions like this?

*<Shots are typically defined as; Leave, Front foot defensive (Block), Back foot defensive shot, Cover drive, On drive, Straight drive, Leg glance, The pull, The sweep, Paddle Sweep and The cut>*

### **How Blocked? (Number of Shots)**

Going back to the time times where you'd practice practicing a shot repetitively in a block period before moving onto another and then another shot.. and so on.

How many shots would you typically practice in isolation during practice sessions like this?

### **Constant/Varied**

Of the time where you have reported \_\_\_ % as:

(a) Practicing shots repetitively for block periods of time - \_\_\_\_

What percentage of the time would this practice have involved you intentionally playing shots roughly to the same place, or where shots might have had the same loft or same pace (and so was fairly consistent) compared to times where shots would be hit to a different area, or have different loft or pace (and so was quite varied)?

(b) \* *IF APPLICABLE* \* To 'this' bit of your batting practice in between, - \_\_\_\_

What percentage of the time would this practice have involved you intentionally playing shots roughly to the same place, or where shots might have had the same loft or same pace (and so was fairly consistent) compared to times where shots would be hit to a different area, or have different loft or pace (and so was quite varied)?

(c) The practicing of different shots that are mixed up, randomly if you like...

What percentage of the time would this practice have involved you intentionally playing shots roughly to the same place, or where shots might have had the same loft or same pace (and so was fairly consistent) compared to times where shots would be hit to a different area, or have different loft or pace (and so was quite varied)?

### **How Constant is Constant?**

Where you have stated that you intended that aspects of your shots would be fairly consistent for periods (meaning that the area you would hit to, loft or pace was consistent)... To what extent did each of these 3 aspects remain consistent when practicing your shots like this?

### **How Varied is Varied?**

Where you have stated that you intended that aspects of your shots to be varied for periods (meaning that the area you would hit to, loft or pace was different)... To what extent did each of these 3 aspects vary when practicing your shots like this?

### **DELIVERIES FACED <FIGURES 1, 2 & 3>**

For this next section, I'd now like to focus on the deliveries you faced at age 16 during practice during a typical \_\_\_\_ week in line with your batting practice that we've just been through. Again, I'll be keeping us on track with time here.

#### **Deliveries – Blocked/Random**

I'm now interested in finding out about what the deliveries you faced looked like for each of these batting practice proportions we've just been through. I'll be asking you about the proportions of your batting practice (listed on this grid) and whether you faced any of the following types of deliveries (to make up 100% of the deliveries you faced):

- (a) Throw downs by a coach or another player
- (b) Bowling machine deliveries that would bowl a type of delivery in overs ((or longer))
- (c) The same bowler type (e.g. an off spin bowler) bowling overs at you repeatedly
- (d) The same bowling type bowling single deliveries (e.g. multiple off-spin bowlers taking it in turns to bowl at you) one after the other
- (e) Different types of bowlers who would bowl randomly one after the other, meaning that on the large part, each delivery was different and was completely random

So let's go back to the start, to times during batting practice where you'd be *practicing shots in blocked drills down here*, typically what % of these sessions at this age would you face:

- (a) Throw downs by a coach or another player
- (b) Bowling machine deliveries that would bowl a type of delivery in overs ((or longer))
- (c) The same bowler type (e.g. an off spin bowler) bowling overs at you repeatedly
- (d) The same bowling type bowling single deliveries (e.g. multiple off-spin bowlers taking it in turns to bowl at you) one after the other
- (e) Different types of bowlers who would bowl randomly one after the other, meaning that on the large part, each delivery was different and was completely random

#### **Deliveries – Constant/Varied**

When considering the deliveries faced for this batting practice as a whole, in terms of line, length and pace of these deliveries, to what extent were deliveries set up to either (a) Feed your shots or (b) Get you out, on the whole?

\*When I talk about line, length and pace here, I mean what the deliveries were purposefully aimed to do, regardless of natural variation (i.e. in a machine, or due to a person's bowling ability)\*

*<Interviewer can deduce from what player says, along with breakdown of delivery percentages as to whether this is generally feed, both, or get you out>*

### **Proportion of Bowler Types**

Thinking about your batting practice where each shot you played would generally be different (highly random):

What proportion of these bowlers were pace, finger spin and wrist spin?

What proportion of all those bowlers would be right handers, compared to left handers?

### **Proportion of Bowler Types**

To what extent would these bowling proportions be the same when you practiced your shots in isolation (in blocks)? *If not the same:*

What proportion of these bowlers were pace, finger spin and wrist spin?

What proportion of all those bowlers would be right handers, compared to left handers?

### **Difficulty (Decision Making)**

I'd like to ask you how difficult you found shot selection in each of the scenarios we've been through at age 16, taking into account the deliveries you were faced with. To do this, we'll go for a rating of 1-10, with 1 being where you had to make no decisions, meaning that the level you had to think was non-existent (extremely easy) and 10 being where you had to make lots of decisions, meaning that the level you had to think was maximal (extremely challenging).

### **Difficulty (Execution)**

To what extent did your shot outcome match your intention when practice looked like this? Again, if we go with a rating of 1-10, with 1 being that your shot outcome would match your intention all of the time and 10 meaning that your shot outcome never matched your intention.

## **SPECIFICITY AND DIFFICULTY OF PRACTICE**

### **<Table 4.1e>**

#### **Context Specificity:**

I would now like you to rethink about what practice was like in your typical week when you were 16. I would like you to consider whether practice environments were similar to the competition environment. Examples, are situations where practice environments mirror competition closely, that is, setting (possibly imaginary) fields and creating scoring scenarios that were likely to occur in competition. Then perhaps the technical aspects of practice would involve gaining experience on wickets with different lift and turn if competition involves different type of wickets. Or maybe you were facing the same bowlers in practice who you were likely to be facing in the next match. Please also try to recall situations where these examples might have happened ‘accidentally’, for example (during a typical pre-season week) you may have been practicing with more than one club and thus been exposed to more than one wicket, or types of bowlers.

Based on the types of examples just spoken about, what proportion of your practice was similar to competition at age 16? (0% = never; 100% = all the time)

### **< Table 4.1e fill in Context Specificity >**

#### **Context Specificity Difficulty:**

Please can you tell me how difficult (1-10) these sorts of ‘match scenario’ sessions typically were at 16? (*Interviewer records difficulty on Table 4.1e*)

### **< Table 4.1e fill in Difficulty >**

#### **Anxiety Specificity:**

Finally in regards to practice matching competition, for your typical week when you were 16 I would like you to consider what the stress of practice was like in comparison to that of competition. Please pay particular attention to practices where pressure to perform was introduced. Examples of such practice could be the introduction of consequences to performances deemed unsuccessful (e.g., being made to sit out the next practice session if you failed to score 20 or more runs, being moved down the batting order in the next competitive match if you failed to produce 10 consistent executions of a particular shot in the nets, or were made to perform some mundane job for the good of the team. Please tell me what proportion of your practice was set up so that the pressure induced was similar to that of competition (0% = never; 100% = all the time). (*Interviewer reports frequency on Table 4.1e*)

### **< Table 4.1e Fill in Anxiety Specificity >**

### **Anxiety Specificity Difficulty:**

Please can you tell me how difficult this pressured practice typically was at age 16?  
(Interviewer records difficulty on Table 4.1e)

< Table 4.1e Fill in Anxiety Specificity Difficulty >

### **Pressure Induced Specificity**

<Recorded>

Finally, in regards to situations where you practiced in a pressured environment, can you provide me with some details about how pressure was induced?

<Interviewer records this for qualitative analysis>

### **Focus of Attention (FOA)**

<Table 4.1f>

O.K., I now want you to spend a little more time thinking about what your typical week was like when you were 16. I would like you to consider where your focus of attention was during practice. There are two types of situation that I would like you to consider:

1. Situations where you focused on your body (e.g., your coach may have asked you to focus on your hands or asked you to move your feet and your head in a certain direction when performing .....or you may have focused on keeping your elbow high).
2. Situations where you focused on the outcome of your movements (e.g., when the coach asked you or you decided to focus on the swing of the bat....the flight of the ball... where the ball was to be hit to...).

Please can you now tell me how the proportion of time during practice where you focused on your body movements during training, compared to when you focused on the outcome of your movements? (0% = never; 100% = all the time)? (Interviewer reports frequency on Table 4.1f)

< Table 4.1f Fill FOA prevalence during practice >

### **FOA nature**

#### **<Table 4.1f>**

For both the body and outcome focuses you just told me about, I would now like you to recall whether the majority of that focus was on the separate aspects of a technique/skill (e.g., when you broke the technique down into parts *such as the movement and position of the elbow, the movement of the feet, the swing of the bat, the rotation of the wrists, or the position of head etc.*) or whether they were more holistic and simply focused on the technique as a whole (e.g., *attack the ball, move fast, move smoothly, feel my body moving fast, feel myself rotating powerfully*). *Interviewer records the responses on chat 4.1f; Place a 'p' if interviewee reports that the majority of their focus was on separate or individual aspects of a skill or place an 'h' if the focus was more holistic in nature. In situations where it is 50:50, place an 'e'.*

**< Table 4.1f Fill in FOA nature column; P/H/E>**

### **Intrinsic/Extrinsic Feedback**

#### **<Table 4.1g>**

Again thinking back to your typical week when you were 16, I would like you to tell me about the opportunities during practice that allowed you to develop your own feedback. For example, instances where you might only be given feedback when you asked your coach/peers for it? Or where your coach/peers asked you to describe what a shot felt like or how you could improve performance before giving you feedback? Maybe you were provided feedback after a period of delay? Maybe you just generated your own feedback a lot of the time...

Compare this with times where your coach would be there providing constant feedback, without allowing delay for you to think about this yourself.

Please tell me what proportion of practice contained these types of feedback activities (i.e., activities where you afforded times to think about your own feedback before being provided it by a coach or peer, or where feedback was purely self-generated), compared to the times where feedback was actively given to you continuously during your practice (0% = never; 100% = all the time). *(Interviewer records intrinsic/extrinsic feedback prevalence on Table 4.1g)*

**< Table 4.1g Fill in Intrinsic/Extrinsic Feedback >**

### **Constraints/Prescriptive Learning Approaches**

#### **< Table 4.1h>**

Finally, for your typical week at age 16, I would like to understand how often practice encouraged you to learn batting skills with a prescriptive coaching approach versus a task based coaching approach. To help you recall this first let's discuss what a prescriptive coaching approach looks like and what a task based coaching approach looks like.

Prescriptive coaching typically involves lots of demonstrations and verbal instructions about how to perform a shot in a technically correct fashion together with lots of feedback and guidance about how to adjust this technique on future attempts.

Task based coaching typically involves creating situations where learners are encouraged/forced to find solutions to batting scenarios through exploration and discovery. In a little more detail, the batting scenarios are created by

1. Manipulating the task (such as the conditions imposed by the coach (e.g., you can't hit the ball over the top, or maybe you can only score in the air)
2. Manipulating the environment such as the playing surface, the weather conditions (dry, damp), and the availability of sensory information (i.e., the vision, hearing, or 'feel' of the player).
3. Manipulating you as a player, perhaps by limiting your movement (e.g., batting one handed, wearing a helmet that restricts vision, the use of ropes or elastic bands).

In constraints based coaching, when these types of manipulations have been imposed by the coach, or maybe even by yourself, your batting movements change as a result of these and *not* as a result of the coach 'telling you what and how to do things'.

Now, with your understanding of prescriptive and task based coaching, can you please tell me how much of your practice (%) during your typical week when you were 16 consisted of prescriptive coaching and how much consisted of task based coaching. There may have been times where practice fell into neither of these categories and coaching was actually non-prescriptive and non-directional meaning you were left to your own devices, where you did NOT set your own task constraints, in which case just let me know. *(Interviewer records proportion of time on Table 4.1h)*

#### **< Table 4.1h Fill in proportion of coaching approaches >**

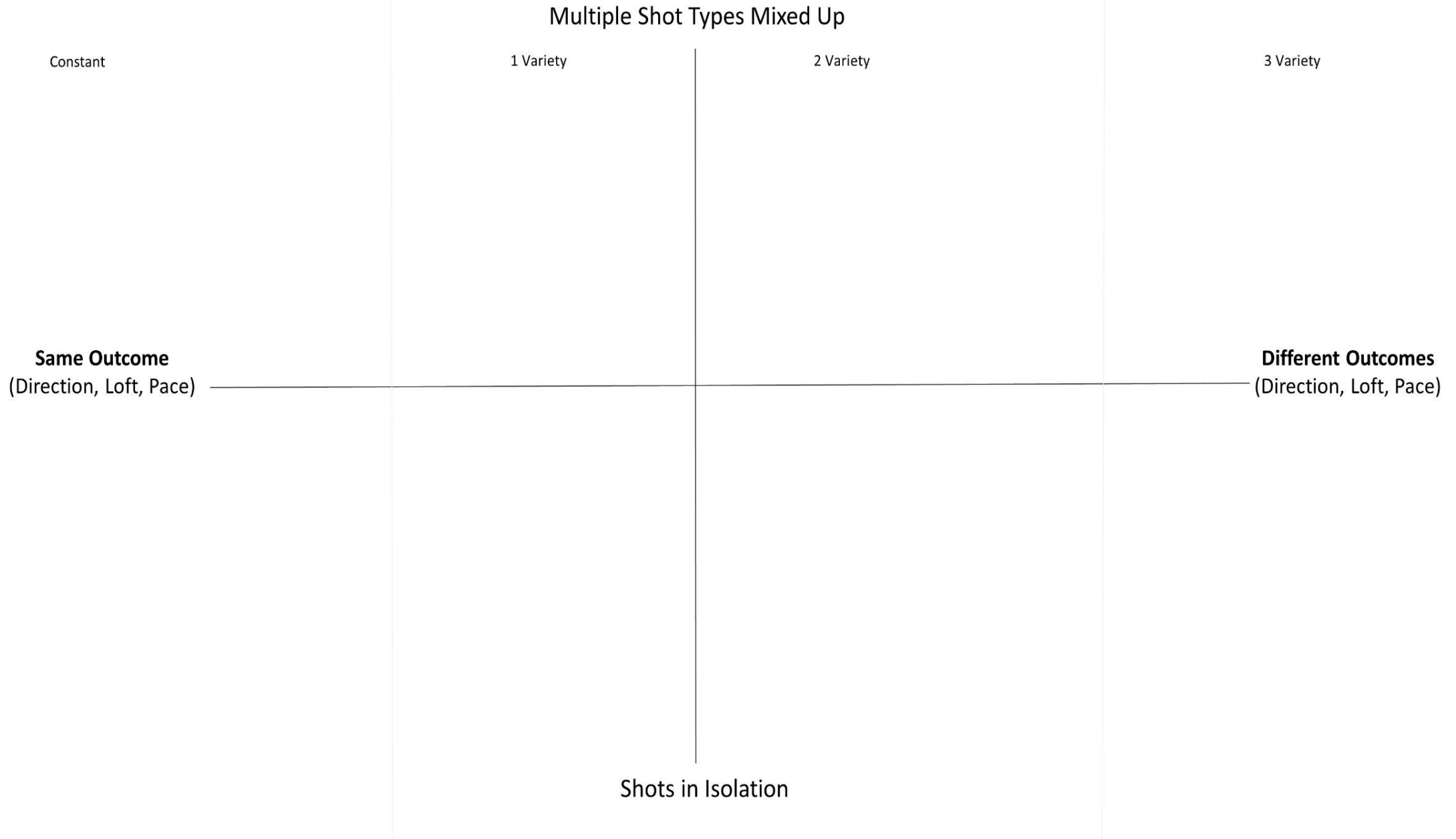
### **Key Transitional Point**

#### **<Excel Sheet>**

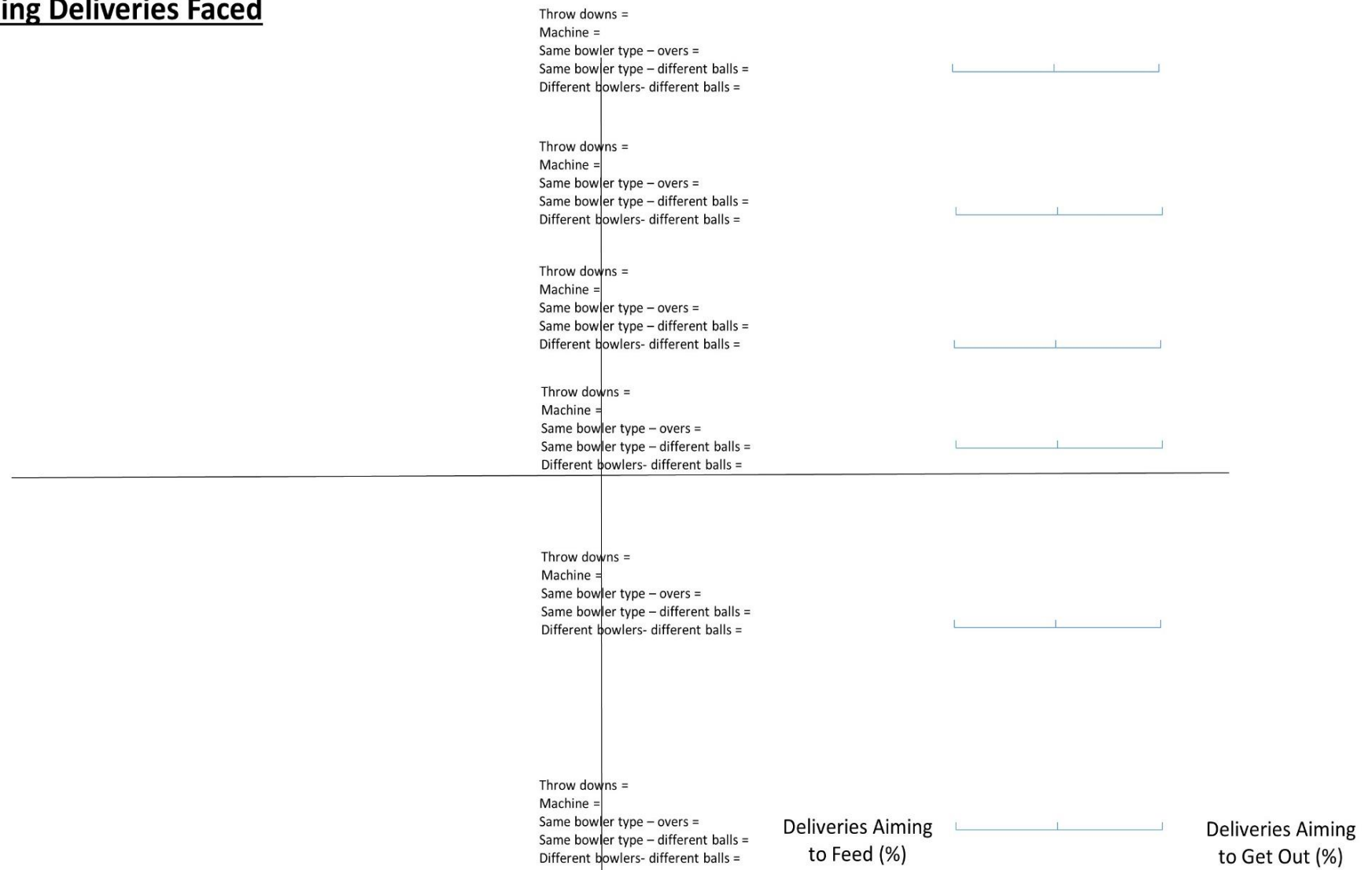
Finally, I would like you to think about whether there was a key learning experience that took place at age 16? It doesn't necessarily have to be at 16 years, it could be a few years earlier. This is open to your interpretation, but please be as specific as possible- stating why you think this was key.

**INTERVIEWER REPEATS SECTION 4 FOR AGES 18 AND 22.**

**Figure 1. Shot Selection**



**Figure. 2 Bowling Deliveries Faced**



**Figure 3. Examples of Bowling & Batting Variety**

