Examining intellectual prowess, not social difference: removing barriers from the doctoral viva for autistic candidates

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Abstract

The doctoral viva voce ('viva') has been variously described in the literature as mysterious, unpredictable and potentially frightening for students. Here we present a set of reasonable adjustments designed to remove social barriers from existing viva process for the benefit of autistic doctoral viva candidates. Our objective is to ensure that autistic students, who experience atypical differences in social interaction, social communication, and social imagination, are examined on academic prowess, not social differences. Recommendations are based on our many years of work with autistic adults in higher education and elsewhere and relevant literature. It is our view that these proposals could also benefit non-autistic doctoral candidates. Key proposals are to allow candidates the choice of a 'virtual viva' via electronic mail; to prepare a 'needs assessment' pre viva; and to ensure that relevant university personnel understand autism sufficiently to appreciate issues specific to the individual and their viva. Academic rigour and integrity would not be compromised but the playing field might be flattened.

Introduction

The Doctorate of Philosophy (PhD) is 'an important award, recognised internationally to signify high level *intellectual* endeavours in a specialised field of study' (Johnston, 1997, p. 333, our italics). The same is so for professional doctorates such as the Education Doctorate (EdD). In the UK the viva voce or oral examination (hereafter referred to as a 'viva') is the penultimate (depending on corrections) or final hurdle at which a candidate defends their thesis (QAA, 2011a). The viva has been described as a 'gate-keeping function and … a marker of standards' (QAA, 2011a, p. 23). Although national guidelines exist, viva processes vary within and across institutions, rendering processes mysterious, unpredictable and potentially frightening for students (Watts, 2012). Park (2003) piloted viva best practice at Lancaster. Following 'the unofficial endorsement of the National Postgraduate Committee' (Groves, 2003, cited in Park, 2003, p. 8) Park's framework was adopted by the university in 2005 (Murray & Pearce, 2005), and still operates at Lancaster (Child, 2013) but we have found no evidence of its adoption elsewhere.

Aiming for equivalency, QAA identify an objective of their doctoral characteristics guide as ensuring those candidates 'face similar *intellectual* challenges' (QAA, 2011a, p. 23, our italics). Our recommendations, designed to remove social barriers in order to focus on the intellectual, were informed by experiences of[§] a small number of autistic PhD doctors. 'Autism-friendly viva's' is a limiting descriptor as our recommendations may potentially also benefit non-autistic students (Walters, 2010). This research is sensitive to the potential

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vulnerability of persons with autism, however academically able. Informed consent was gained for email contact which is often preferred by autistic individuals. Participants are anonymous, and strict confidentiality has been maintained.

Background on autism

Van Bergeijk, Klin & Volkmar (2008, p. 1359) stated that 'In the 1990's a surge of children were diagnosed with autism… and are now approaching college age'. In 2015, numbers of students with an autism diagnosis are increasing annually; and many of these students have now graduated. Figures relating to students without formal diagnosis do not however exist. Autism including Asperger Syndrome (AS) involves developmental delays in social interaction, social communication, and social imagination (Wing, 1981, 1997) often causing difficulty in social settings. Although intellectual ability remains unaffected (high functioning autism and AS are associated with at least average intellectual ability). Some scholars suggest links between autism and fluid reasoning (Hayashi et al., 2008) and creativity (Fitzgerald, 2008). Trafford (2003) refers to the 'social/intellectual transactions between examiners and candidates' (p. 114-115) and 'unfolding social processes' (p. 115) that take place within the viva, which Martin (2010) identifies as especially stressful for students with autism and AS. These students are likely to be disadvantaged in the social setting of the viva which will potentially induce stress and a high anxiety state, something many autistic people experience frequently (Gillott, Furniss & Walter, 2001; Kim et al., 2000; Martin, 2010). White et al., (2009) suggest that autistic candidates are unlikely to be able to make sense of all the social transactions and processes in the viva. A tendency for single-track[**] thinking will, also potentially make the viva experience substantially worse than for a non-autistic student. An inherently stressful, potentially frightening experience for anyone may well be excessively traumatic for an autistic student.

The sanctity of the viva

There is ongoing discussion on efficacy, and indeed validity, of current viva traditions (Morley et al., 2003, Tinkler & Jackson, 2000, Watts, 2012). It is not our intention to contribute further to this debate. Potter (2006) identified three critical viva functions: (1) to check that the thesis is actually the work of the candidate, (2) to assess the ability of a candidate to be articulate under stress in the defence of their work, and (3) to clarify aspects of the candidates thesis. We argue that functions (1) and (3), although essential could be achieved in other ways. Function (2) could hardly be more autism-unfriendly. We ask, would a doctoral degree be devalued if a candidate was required to defend their thesis robustly in a non-stressful manner such as via an exchange of emails with examiners in a controlled environment? Watts (2012)suggests that, being 'articulate under stress (is) seen as an important function of being a professional researcher' (p. 372). However a doctorate is supposed to be an assessment of academic ability and originality at the highest level rather than a test of resilience under pressure.

The need for an autism-friendly doctoral viva

Given the status of the doctorate it is expected that the viva will be demanding. Defending doctoral level work to examiners in a formal setting is inherently stressful. However, Delamont et al., 2004 argue that the viva does not have to be terrifying and we argue potentially more frightening for autistic candidates who face additional challenges around

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[**] In referring to single-track thinking we have in mind the monotropism theory of autism (Murray, Lesser & Lawson, 2005, p. 142) discussed briefly in the section of this article on autism theory.

social interaction. Our recommendations aim to ensure that autistic candidates are not placed at a substantial disadvantage. Rather than proposing positive discrimination we consider here, amelioration of disadvantage.

Autism theory in the context of the doctoral viva

Theory of mind (ToM) refers to the ability to attribute mental states to self and others (Frith & Happé, 1999). ToM theorists research the development of understanding of mental states of the self and of others and suggest that autistic people are often delayed in this understanding, resulting in challenges around social interaction and social communication. If questions in the viva are posed in ways which required understanding from the examiner's perspective considerable disadvantage may result.

Executive functioning (EF) involves 'several abilities for preparing and engaging in complex organised behaviour' (Macintosh & Dissanayake, 2004, p. 426). EF encompasses formation of abstract concepts, planning, focusing, sustaining and shifting attention, and utilising working memory (Macintosh and Dissanayake, 2004). Liss et al., 2001, Fisher & Happé, 2005, Verte et al., 2006 have demonstrated that some, EF processes are likely to be affected in autism (e.g. commonly difficulty with planning but not necessarily inability to inhibit impulsive behaviour). Answers to viva questions may not be as organised as a non-autistic candidate's. For example, appearing 'never ending', as one answer links to another.

Weak central coherence (WCC) is described by Attwood, 2007, (p. 241) as 'being remarkably good at attending to detail but (having) a weakness in perceiving and understanding the overall picture, or gist'. Strengths in manipulating detail and difficulties in forming an holistic picture may result. Happé & Frith (2006) characterise this as a preference for local processing regarding WCC (with the concomitant strengths) as a difference in information processing style, rather than an impairment. They suggest that people vary along a continuum of central coherence with persons with autism lying at the weak end (Happé & Frith, 2006).

Monotropism theorists argues for a state of heightened (hyper) awareness inside, and lessened (hypo) awareness outside an attentional tunnel, which may explain aspects of autistic cognitive style as well as unusual (hyper- and hypo-) sensory sensitivities (Murray, Lesser & Lawson, 2005, p. 142). Central coherence issues and/or monotropism could result in addressing too thoroughly specific details rather than providing the expected holistic response. Examiners could be given more jurisdictions, by prior agreement, to stop a candidate when they have answered the question to the required extent, thus avoiding unnecessary stress for someone who does not know when to stop talking.

'An earlier hypothesis concerning the psychological cause(s) of language impairment in autism suggested that there is a fundamental deficit in the ability to process transient, sequential stimuli (i.e. stimuli with a temporal dimension) such as speech or manual signing' (Boucher, 2003, p. 250). Boucher (2003) claimed that autism involves varying levels of difficulty in understanding conversation exchanges in real time 'which contributes to the linguistic aspects of their pragmatic impairment' (Boucher, 2003, p. 250). The expectation of fluid linguistic reciprocity within academic debate in a viva could well impact on autistic candidates hugely if time required to process layers of language is not built in. Understanding body language and non-verbal communication including inference and the

stress of the constant focus of the examiners' eyes, may also present challenges which could add to potential for disadvantage and miscommunication between parties.

Equalities Legislation

'All institutions require and all students deserve academic procedures that are fair ….procedures should be transparent and consistent' (Park, 2003, p. 1). We contend that it is morally unacceptable for any academic institutions, or other bodies, to treat any student unfairly at any stage in the process of gaining any qualification, whether it is a cycling proficiency certificate or a doctoral degree. Tinkler & Jackson (2000) add that 'most institutions stipulate, often in appeals procedures, that the viva examination should be 'fair' and/or 'unbiased'' (p. 179). We are debating fairness here through an autism friendly lens. An intellectually capable autistic candidate may be viewed as being 'socially inept' (not our pejorative term), even in situations that a non-autistic person would find straightforward. Taking longer to understand a question and compose a response, thinking differently, thus interpreting questions unusually, then responding in unexpected, albeit logical way, may be interpreted as social ineptitude. The mantra 'do as you would be done by' does not reflect the requirement for academic practice to accommodate autistic differences, therefore. 'Reasonable adjustments' are appropriate:

> where a provision, criterion or practice of A's puts a disabled person at a substantial disadvantage [to non-disabled people] in relation to a relevant matter in comparison with persons who are not disabled, [A must] take such steps as it is reasonable to have to take to avoid the disadvantage (Equality Act 2010, UK, 2010, s. 20).

The Act states that universities 'must not victimise a [disabled] person… in the services it provides or offers to provide' (s. 92(5)). Hence, all elements of the doctoral process, viva included should be delivered in a manner that does not 'victimise' autistic candidates.

Option of a virtual viva (in a controlled environment)

Autistic ToM (and other people) makes any social setting (informal or formal, 'friendly' or inquisitorial) complicated. Difficulties will be heightened in a vitally important formal examination. Executive functioning may explain autistic differences around responding in 'real time' conversation including requiring longer to process words and compose suitable responses. Ordinary autistic social anxiety can occur in any situation but will inevitably be compounded by the stress of a high stakes encounter crucial to graduation but mysterious (even to non-autistic persons), unpredictable, and potentially frightening (Watts, 2012). Watts (2012), citing Potter, writes that the viva 'is intended to examine the student at their best' (p. 371). An extremely important and complex social encounter will not bring out the best in a person with autism and we suggest here other ways of checking whether a thesis is the candidate's own work and question the justification for requiring *anyone* to be 'articulate under stress' (Morley et al., 2003, p. 65) rather than simply to defend their work robustly.

Electronic Communication

Parsons et al. (2000) have considered some of the advantages of virtual reality environments for people with AS, and a preference for email and on line communication has been noted. A

viva undertaken via email[††] has the potential to achieve the viva functions identified by Potter (2006) whilst examining the (autistic) student at their best (Watts, 2012), or, at least, without the added anxiety associated with face-to-face social interaction (Howley, unknown). Murray (1997) highlights affinity between monotropic attention and computer usage. Advantages of communication by computer are perfectibility (autistic people are often perfectionists) and social and emotional distancing (Bolte, 2004, Murray, 1997, Swettenham, 1996). Benford and Standen (2009, p. 4) contend that 'the impact of the Internet on high-functioning autistic adults has been likened to that of sign language on the deaf community'; demonstrating both the extent of communication challenges autism may involve and the value of computer-based solutions. In her doctoral thesis, Benford (2008) highlights aspects of computer-mediated communication which she considers, could 'bypass the social communication difficulties of autism' (p. 126), including: absence of nonverbal social context cues; single channel (monotropic) and slower paced communication; a more regular, predictable environment; and the avoidance of face-to-face contact. Autistic respondents to Benford's survey described the chief advantage of email communication as the avoidance of having to respond in real-time, 'In online communication it is acceptable to pause… conversation…, giving me time to think about what to say next,… I can delete text that I have typed if I change my mind about wanting to say it' ('David', cited in Benford, 2008, p. 264). Benford and Standen (2009) consider that email communication 'may have a wider role… in breaking down … social communication barriers which individuals with [high-functioning autism] face on an ongoing basis' (Benford and Standen, 2011, p. 365).

Fairness and academic standards would clearly have to underpin any decision to implement virtual vivas as a reasonable adjustment. The examination must be undertaken in an environment controlled by the university to ensure candidates were not being coached or otherwise assisted in responding;

Need for an independent Chair or advocate

The assumption that one of the examiners in a viva will act as a Chair to ensure fairness and protocol is usual. Park (2003) and the QAA recommend for an independent Chair alongside the internal and external examiners:

> Higher education providers that are research degree awarding bodies may appoint an independent, non-examining chair, who may not contribute to the assessment judgement. Such an appointment and clear guidance on the extent of the chair's role and responsibilities, including details about the circumstances in which the chair will be used, encourages consistency between different vivas
> (QAA, 2011b, p. 27).

Having a sound understanding of autism and knowledge of the requirements of the individual candidate could enable the independent chair to consider areas where the candidate may be placed at a significant disadvantage, and be alert to signs of heightened anxiety. Tinkler and Jackson (2000) pointed to practice which 'encourages the appointed examiners to invite attending supervisors to contribute to the discussion in such a way as to act as the 'candidate's friend' (p. 175). The supervisor, who will know the candidate well,

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[††] We have considered Skype but rejected it as not being autism-friendly as it requires the immediate responses associated with face-to-face interaction, albeit it is not face-to-face if the cameras are deactivated.

may therefore fulfil an advocate function, more effectively than the independent chair could[‡‡]. An advocate of the candidate's own choosing may be most helpful in terms of reducing anxiety through familiarity and control[§§]. The Chair should certainly have a good understanding of autism and its potential implications for the candidate in order to identify potential for significant disadvantage and unreasonable level of stress, including identification of the signs of imminent meltdown or shutdown (so that they can step in to prevent further deterioration in wellbeing). We recommend an opportunity for the candidate to meet everyone attending the viva well beforehand to build familiarity and discuss arrangements. A viva specific 'needs assessment' could underpin an autism awareness session focused on the specific individual (rather than being general autism awareness training). The candidate should know, and have confidence in the person delivering the training who would, in an ideal world, be present in the viva (possibly as the independent chair). One of our participants reported that 'The external examiner who led the panel, had a wealth of knowledge in autism and was very careful to ensure I was comfortable throughout. I had a couple of emotional outbursts … and they allowed me to recover before continuing.'

Ideally all examiners would be well-versed in the requirements enshrined in equalities legislation and good autism practice. Realistically, developing a small cohort of independent viva Chairs for autistic candidates may even be practicable.

Careful selection of a viva panel

Earlier than usual, selection of examiners would provide time to ensure that all parties have sympathetic understanding of autism, in general and time for suitable preparation. An independent Chair thoroughly versed in autism could oversee the selection process in collaboration with relevant university staff. Anyone without a reasonable understanding of autism should undergo autism awareness training prior to the viva.

Protocol for the traditional and virtual viva

Recommendation 1. Oral or oral substitute the viva should be regarded as an oral or oral substitute examination of a research degree to allow for the possibility of a virtual viva.

Recommendation 2. An autistic needs assessment prepared by an advocate in collaboration with the candidate, is required to ensure that the viva arrangements are appropriate to the individual, and could be used as the basis for briefing the Chair and examiners.

Recommendation 3. An independent Chair acting as an observer and manager of the (face to face or virtual) meeting, should ensure that procedures are followed, and issues which arise during the viva are addressed appropriately. (A named person would sit with the student during a virtual viva, as a reassuring presence and to ensure protocol is followed).

[‡‡] We assume that in referring to an attending supervisor as a 'friend', Tinkler & Jackson (2000) are simply expressing a view that there is a need for someone to attend who understands the candidate's autism.
[§§] This is *not* an attempt to advantage an autistic candidate via positive discrimination but to ensure a level playing field with non-autistic candidates given the many differences between them.

Recommendation 4. The viva team's understanding of autism and its potential implications for the candidate' should be facilitated by a briefing session informed by the autistic needs assessment.

Recommendation 5. The venue, waiting area and timing should address sensory sensitivities, anxiety and comfort and be familiar to the candidate. Early morning may be problematic as the candidate may well have had an anxious sleepless night. One respondent commented 'I was given the opportunity to choose the approximate time of my viva – mid morning – so I did not have to wait around all day', however, she also pointed out that 'I was called in to the viva later than the given time, allowing me to get more anxious'. Another said 'Immediately before the viva I was asked to wait in a public area … which was awful. There were too many people there who knew me … and the number of people who came up to me to chat was extremely stressful'.

Recommendation 6. Candidate interrogation should follow a predictable structure. An outline and initial questions should be made available to the candidate a week before the viva to reduce the stress of having to understand the nature of questions as well as compose their responses. Follow-up questions will be unrestricted in order for the examiners to fulfil their role). Immediately prior to the start of the viva the Chair should explain the 'rules of engagement' clearly. Several respondents' noted that positive comments about the thesis helped put them at ease. They also said that confirming a positive outcome at the end was a relief. The examiner may be briefed to use phrases like, '*I'm going to stop you there and ask you a slightly different question on the same theme'* if the candidate is going off the point. Questions like, '*Can you say a little more about that'* might be ambiguous (and could elicit a yes or no response) therefore a degree of prompting may be necessary. These strategies could be demonstrated in a practice session. The candidate is likely to respond well to direct questioning about the topic as an in depth interest which is really important to them. One respondent noted that his examiners asked so few questions on his special interest that he 'spent hours and days afterwards turning it all over in (my) mind. Ambiguous questioning may fluster and practicing specific strategies to seek clarification (practiced in advance) may be helpful, such as asking, '*Please will you repeat/rephrase the question'*. Short clear questions with supplementary ones as required, work best.

Recommendation 7: A written pre-brief and familiarisation which outlines, for example approximate timing and arrangements for breaks: will reduce anxiety resulting from uncertainty. One candidate described his viva experience as follows:

> 'In the main – terrifying. It was the absolute fear of both the unknown and the concerns about looking like a total idiot in front of the panel, all of whom I knew, two of whom I had/have a great deal of respect for. I was very frustrated at the almost total lack of what to expect, and this took up a huge amount of intellectual and emotional energy for months prior to the event itself.

It is useful to acknowledge that everyone is nervous when taking their viva and this is not specific to students with AS. Otherwise the candidate may internalise their anxiety as a personal failing, and become anxious about being anxious. In addition to a written pre-brief, meeting in advance, visiting the room, knowing what they can take in (for example water),

advice to eat, drink and go to the toilet pre viva(without being patronising) can be helpful. One participant said:

> I arrived in [place name omitted] the day before my viva to meet with my DOS [Director of Studies] in his office. After a "calm me down" chat, we walked over to the room allocated for my viva so that I knew exactly where it was, what it looked like, how big it was etc. This really helped. However, the same respondent wrote that she would like to have been given an opportunity 'to set up my "area" in the room before walking in.

Recommendation 8. Post-viva feedback and creation of a safety-net needs to occur as soon as possible and be very specific and sensitive. Many autistic candidates are perfectionists and have low self-esteem, despite being high achievers, therefore they need to leave the feedback session knowing exactly what they have done well, and what they need to do in order to complete. It is vital to spell out that it is usual to have to make some amendments (a topic which should have come up during viva preparation). All feedback should be followed up in writing quickly, by the agreed date as the candidate will be waiting anxiously and may over interpret delay. Assistance should be available for follow-up action which should be clarified in writing, and discussed carefully, to avoid unnecessary rewriting. One former student proposed 'some kind of "post viva support group or forum" to share experiences and just get it out of the system'. Another would have liked to meet his examiners 'at a later date (perhaps after modifications) with no formal constraints to discuss aspects of the thesis that I wanted to chat about that hadn't come up in the viva'.

If the candidate fails their Doctorate, a 'safety net' is essential . An MPhil instead of a PhD, may be perceived as failure and very careful discussion, on more than one occasion, around the merits of this award, will be necessary. The advocate and/or supervisor should be involved and the candidate may wish to record the discussion as they are likely to be too stressed to remember it.

Protocol for the virtual viva

Virtual vivas should mirror best practice associated with face-to-face vivas. The likelihood is that a virtual viva involving an autistic candidate will take considerably longer so at least half a day should be set aside, with flexibility to run over. The downside of lengthy virtual viva's are arguable less than those associated with face to face vivas.

Recommendation 9. The supervisor role in maintaining a supportive watching brief can be mirrored in an electronic viva's by copying in on all questions and responses but not allowing the supervisor to intervene.

Recommendation 10. A mock virtual viva is recommended to aid candidate preparation and therefore reduce anxiety.

Recommendation 11. A brief student summary could be presented via email at the start of a virtual viva in order to reassure the candidate that they have been able to communicate key points from the outset.

Recommendation 12. Raising concerns with the Chair during a virtual viva could be facilitated by allowing the candidate to email the chair confidentially in a way which would mirror the opportunity to talk to them privately in a face to face viva.

Recommendation 13. Meeting the panel beforehand informally would be essential for face to face vivas in order to reduce the stress that can be involved in meeting new people for the first time. Skype may fulfil a similar function if necessary.

Recommendation 14. A mechanism for the candidate to *indicate high anxiety*, such as a form of words or an alert card could be instigated alongside protocols to build in a break if this situation arises.

Recommendation 15. Regular breaks may be necessary and arrangements, which would include chaperoning, must be agreed in advance.

Recommendation 16. Prior to the viva, social conventions such as eye contact may need to be discussed. The viva is not a test of the ability to look at other people in a socially conventionally way and it may be useful to articulate an agreement that this does not matter.

Recommendation 17. Non-disclosure does not equate to no reasonable adjustments. If a candidate prefers to talk about 'access requirements' rather than a diagnostic label, this should not be problematized.

Discussion

People on the autism spectrum who are functioning academically at doctoral level can still be challenged by differences in social interaction, social communication, social imagination, and other people's attitudes towards them. We have presented recommendations for changes to vivas designed to level the playing field (rather than positively discriminate), without adversely affecting the academic rigour or integrity of the process. Universities are expected to provide opportunities attuned to disabled students and the viva experience should avoid trauma by reflecting rather than problematising social difference associated with autism. Our recommendations are designed to enable the viva to examine intellectual rather than social prowess. Key proposals are to allow the choice of a 'virtual viva' undertaken via electronic mail, to develop an autistic 'needs assessment' prior to a viva, and to ensure that everyone involved in a viva understand autism well enough to appreciate the specific issues faced by each individual candidate. If the viva 'is intended to examine the student at their best' (Potter (2006) cited in Watts (2012) p. 371) then it must not be a test of being 'articulate under stress' (Potter (2006) cited in Watts (2012)). Reducing mystery and unpredictability around the viva should render the experience less frightening, and more rewarding good autism practice may well be adopted for other students without polluting the traditions of doctoral examination.

We conclude with an example of a simple effective 'protocol' agreed between a successful autistic doctoral candidate (x), her Director of Studies, and examiners.

1. The panel will convene at 9.30am
2. The viva will commence at 10.30am[***]
3. The viva will be completed by 12.30pm *in all likelihood*
4. x will be able to use a desk to sit behind
5. will have access to her thesis and any notes she wishes to bring with her
6. x will be allowed to take a break of a reasonable duration at any time if her anxieties become overwhelming
7. The panel will start questioning in a (perhaps) traditional manner of asking her to outline her work, rationale for doing it, and her overall experiences
8. The panel will subsequently ask questions relating to the thesis in a chronological manner, i.e. starting at the beginning of the thesis and working through
9. The panel will ask questions in a direct, linguistically clear manner and that x will not be 'marked down' if she requires clarification; additionally, that the panel will respectfully inform x if she has answered a question to their satisfaction, or ask for additional detail if required.

In the interests of promoting equality (and social justice), further research could 'pilot' virtual vivas for autistic (and other) candidates and identify and iron out difficulties with the proposed protocol. The alternative is to continue to discriminate and potentially waste the considerable talent of highly original, deeply motivated people. Actually, that isn't really a viable alternative is it?

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[***] The viva commenced five minutes late which made the candidate considerably more anxious than she would otherwise have been. This experience demonstrates the importance of understanding the needs of autistic candidates which can be highly counter-intuitive for persons who do not have an understanding of autism.

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APPENDIX A – SEMI-STRUCTURED INTERVIEW INITIAL QUESTION SET

How would you describe your overall viva experience?

How would you describe your experience *before* the viva?

How would you describe your experience *after* the viva?

What were the *good* aspects of your viva, if any?

What were the *unsatisfactory* aspects of your viva, if any?

Do you think that your examiners understood autism sufficiently to make the viva autism-friendly? YES/NO

If you have said 'no' to question 6, what do you think they failed to understand?

Would you have preferred a 'virtual' (email) viva if this had been an option for you? YES/NO

What reason or reasons do you have for your response to question 8?