Teacher trainers’ attitudes towards the use of digital recordings in collaborative feedback: A qualitative study

NICOLA SOWE, University of Greenwich, United Kingdom
GORDON O. ADE-OJO, University of Greenwich, United Kingdom

ABSTRACT This paper reports the attitudes of teacher trainers who were participant-researchers on the use of digital recordings in the promotion of a more collaborative feedback. Using interviews and focus group discussions, it explores the attitude of tutors towards role reversal that the promotion of a more collaborative feedback might induce. It found that although teacher educators are ostensibly positively disposed to the use of strategies and devices for the promotion of collaborative feedback, there are potential areas of resentment which might be easily overlooked. It identifies procedural issues and a potential failure to cater for differentiation as limitations to the use of digital recordings in the facilitation of a more collaborative feedback. The study advocates that the positive elements associated with the use of digital recording as a tool for facilitating collaborative feedback are sufficient to recommend it for use in other fields.

Keywords: Collaborative feedback, attitudes, teacher trainers, power shift, development, collaboration, assessment, digital recording

Background

There is no doubt that the need for the development of a more collaborative feedback has occupied many researchers in the field over the last decade (Copland 2008, Copland, Ma and Mann 2009 and 2010, Edge 2005, Alexander 2005, Ade-Ojo and Sowe, 2011). Emergent themes from many of these studies could be surmised as follows: first, an acknowledgement of the power relation between trainees and tutors as a significant factor in the provision of feedback in the context of assessment and accountability (OECD 2009), second, the tension between feedback as an element of assessment and its role as an element of professional development through self reflection (Avalos and Asaael, 2006 cited in OECD, 2009:9, Stronge and Tucker, 2003), and third, the exploration of how tools and devices such as digital recordings (Ade-Ojo and Sowe, 2011 and 2012), and digital video recordings (Robinson and Kelly, 2007, Dymond and Bentz, 2006, Sherin and van Es, 2005, Kong, Shroff and Hong, 2009) can facilitate the
promotion of collaborative feedback. Furthermore, within the parameters of engagement, most of the conclusions around the effectiveness and limitations of using feedback in a collaborative way towards professional development have acknowledged the role of tutors as crucial to the achievement of the desired collaboration. Yet, very few studies have actually explored the perceptions of tutors on this issue. Given that many studies have explored the psychological and physical inhibitions that trainees might have in the context of promoting collaborative feedback, particularly in the context of using technological devices (see e.g. Ade-Ojo and Sowe, 2012, Mula, 2009 and Halter, 2004), it is surprising that the psychological disposition of tutors towards this development has been given very little attention. This is particularly significant because studies have demonstrated that tutors have always had the upper hand in terms of the structure of power relations in the feedback process. A crucial question, therefore, is; how are tutors psychologically disposed to what might be seen as the erosion of their powers as dictated by the power shift that will inevitably be attached to the development of collaborative feedback? Drawing from our earlier paper (Ade-Ojo and Sowe, 2011), it is obvious that trainee teachers were largely positively disposed towards the use of digital recordings for feedback. Conventional wisdom, therefore, would suggest that this approach should be advocated for teacher training programmes. However, given the importance of the role played by tutors in both the traditional feedback process and the approach we experimented with in this project, it is important that their disposition towards it be established before rolling it out. However, a crucial component of teacher training is the tutors on the programmes. Not only do they have input in terms of theory, they also mentor and help trainees to develop their practical skills. More importantly, they were central to the implementation of the approach to feedback which trainees have been so positive about. This study, therefore, sets out to answer the question; what are tutors’ attitudes towards the change in approach towards feedback?

The larger project

The larger study to which this paper frequently refers was built around the exploration of the role and impact of the use of technological devices such as digital recording in facilitating a less-autocratic regime of evaluative post-observation feedback. The various elements of the research sought the views of both trainees and tutors on a teacher training programme. One element of the research focused on the positive impact of using digital recordings. Another focused on potential physical and psychological inhibitions to the use of digital recordings from the viewpoint of trainee teachers. A third focus of the study was on generating a framework for providing what the researchers call co-productive feedback (Ade-Ojo and Sowe 2012, in press). The final focus, which is what is reported in this paper, sought the opinions and psychological disposition of tutors involved in the project on the development of a more collaborative regime of evaluative feedback. The project involved the use of video recordings of teaching sessions to provide feedback to a group of trainee teachers. Unlike the traditional procedure which requires tutors to observe trainee teachers’ lessons as an assessment process, the project emphasised self-reflection and learner-ownership by directly involving trainee teachers...
in the assessment of their teaching performance through a joint viewing of their recorded teaching performance with their tutor.

In essence, the project sought to see the extent to which autonomy was promoted for learners in the context of limitations to the role of tutors. Following the joint-viewing exercise, trainees' views were sought on the effectiveness of this approach and on what they perceived as potential barriers to its continuous use. A similar fact finding mission is focused on the tutors involved in the project—joint viewers of recordings—and their views are what is being reported in this paper.

**Research approach for the larger project**

The overall approach to the larger project reported above draws extensively on the principles of mixed method research (Cresswell, 2003). In this context, for data collection and analysis, the study utilised a mixture of qualitative and quantitative methods and approaches including the use of questionnaires, focus group and interviews for data collection, and the SPSS statistical analysis tool, content analysis and linguistic ethnography for analysis (See Ade-Ojo and Sowe, 2011 and 2012).

**The current study**

The scope of this segment of the study is relatively small as the participants were just three tutors who participated in the delivery of the original study. The three tutors contributed to the larger project as tutors to the trainee teachers. They teach trainee teachers training to teach adults in community and further education sectors. In essence, both the trainee teachers and their tutors work in the context of teaching adults. In addition, they all teach on the teacher education programme and would have carried out the traditional teaching assessment observations with the trainee teachers, if the traditional assessment observation approach had been used. All three tutors were also involved in the moderation of the feedback session integrated into the joint-viewing activity. The tutors share a number of commonalities. First, they are all experienced teacher trainers with over ten years experience of delivering teacher education. This offers them the opportunity to provide experience-based evidence in terms of the impact of this approach when compared with the traditional approach. Second, all the tutors participated as researcher participants, as the goal for them was to improve their own practice. Playing this role offered the advantage that is associated with the participant social researcher, as they were able to immerse themselves in the social setting under study, and getting to know key actors in that location (Pearson, 2005). It also furthered the cause of the participant observation, which Marshall and Rossman (1989) define as "the systematic description of events, behaviours, and artefacts in the social setting chosen for study" (p.79). In this situation, using these tutors as participant researchers enhanced the potential to describe existing situations using the five senses, providing a "written photograph" of the situation under study. In other words, they were able to provide instinctive reactions both from their own perspectives and from those of the trainee teachers.

The interviews and discussions were framed around three key questions; the poten-
tial for this approach to facilitate self reflection by the trainee teachers, tutor’s attitudes towards the potential shift in power relations between them and their trainees and the perceived limitations of the approach. A combination of discussions and interviews around these key areas enabled us to map out the attitudes of tutors towards the use of this approach.

Because of the relatively small participant number, the research approach to this study is essentially qualitative. Data collection was strictly through interviews and discussions. The overarching structure of the process itself is iterative, as the goal of data collection was to identify emergent themes from one interview/participant and to revisit and illuminate these themes at subsequent interviews and during interviews with other participants. Data collected through discussion and interviews were recorded with the recordings subjected to a second order transcription, which enabled us to eliminate as much of human errors as we possibly could. The transcription was analysed and codified using simple semantic connotations. The emergent semantic groupings then formed the bases from which the various themes presented in the discussion emerged.

However, because of the use of the three tutors as researcher participants, there is an inadvertent inclination towards a linguistic ethnography approach (Creese, 2007, Tusting and Maybin, 2007, and Copland, 2010). This converges with the reflexive approach to data collection and analysis and combines ‘tools of ethno-methodological and interactionist sociolinguistics with tools of ethnography’ (Copland 2010: 179). The resultant production of ‘detailed and nuanced descriptions of talk in the context in which it occurs’ (Heller and Martin-Jones, 2001:12), therefore, further enriched the data collected.

As indicated above, the coverage of data source is rather limited and, therefore, raises the question of credibility. But as indicated in Maxwell (2005), credibility is shaped first and foremost by the goal of the research. In this case, our goal, which converges with those of the participants, was to establish their views of this approach to providing feedback. Because of this convergence, we were reasonably assured of the credibility of the data we collected. Our research question was; what is the disposition of tutors towards the use of digital recordings in facilitating collaborative feedback? In the design of this research, our goal was to treat the research as a real entity, not simply an abstraction or plan (Maxwell 2005:215). In doing this, we acknowledge Kaplan’s (1964, p. 8) distinction between the “logic-in-use” and “reconstructed logic” of research. This research adopted the “design-in-use” of a study, thus bringing out the ‘actual relationships among the components of the research, as well as the intended (or reconstructed) design’ (Maxwell & Loomis, 2002). For us, our research question, as Maxwell (2005:217) reminds us, is ‘the heart, or hub, of the model’ and connects ‘all the other components of the design’.

Ethical issues

The use of researcher participants raises the spectre of ethical considerations, particularly in the context of potential deception of the other participants (our trainee teachers). While this might not directly apply to this component of the overall study, it is
important that we address this here as there is an inexorable link amongst the various components of the larger project. Clarke (1996) used deception in a forensic unit, claiming that this approach was necessary to obtain “uncontaminated” data and justified this method with the claim that “some degree of deception is permissible when “dealing with sensitive aspects of subjects’ behaviour” (p. 38). While this approach might be justifiable to Clarke, we took a more straightforward approach of informing all the participants of the various roles that each group of participants would be undertaking. As such, our student participants were informed of the contribution of the tutors to the overall study with a clear statement on neutrality and that the tutors’ role had nothing to do with the trainee teachers’ assessment results.

Findings and discussions

Three themes emerged from the various interviews and discussions held with tutors involved in the overall project. As there were only three tutors involved, there was ample time to revisit issues and to enable the participants to interact and engage in constructive dialogues, thus enriching the quality of the data that emerged. A summary of the findings is presented in the table below.

<table>
<thead>
<tr>
<th>Discussion/interview focus</th>
<th>Tutors’ attitude</th>
<th>Key pointers</th>
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| Facilitation of self reflection | Unanimous agreement that the approach enhanced self-reflection | · Trainees can relate theory to practice  
· More relevance for reflection through the opportunity to relate to real-life illustrations offered by digital recordings |
| Shift in power relations | Mostly agree that there is a shift in power relations and participants did not resent this shift. However, some connotations of regret lingered | · Assessor to facilitator  
· Discussion rather than instruction  
· Autocratic control to democratic participation  
· Promotion of tutors’ reflection  
**Negative connotation**  
· A hint of regret that tutor’s role has now become ‘secondary’ |
| Perceived limitations | All participants had a proviso that there are potential and real limitations | · Procedural limitations particularly time  
· Weaning trainees of dependency syndrome  
· How to cater for differentiation. |

Table 1: summary of findings

Discussions

**Theme 1: The use of digital recording in the feedback process facilitated and promoted self-reflection**

The response analysed below was initiated through a question around tutors’ views on the contributions of digital recordings to the ultimate goal of reflective practice. This was informed by the overall goal of the project which was to explore ways in which the
development of collaborative feedback can contribute to reflective practice. Participants unanimously agreed that the use of digital recording in the feedback process encouraged trainees to be more proactively reflective. Two issues were identified here. First, participants felt that trainees were more able to highlight relevant aspects of the lessons from the recording and followed this up with a process of rigorous interrogation. Trainees raised questions about these aspects and drew on their knowledge of theory and experience of practice to provide constructive answers to these questions. One interesting dimension that emerged from the discussion around reflective practice was the perception of participants that the process constituted a learning and reflective process for both trainees and tutors. In essence, tutors felt involved too and saw it as a learning process too. This underscores one of the conclusions of other elements of this project which advocated for the development of a model of co-productive feedback (Ade-Ojo and Sowe, 2011 and 2012) in which both tutors and trainees see themselves as involved in a learning process and for which there must be defined outcomes for both parties.

Another interesting insight in this context is the indication that trainees were more able to relate theory to practice. These views are reflected in some of the comments from tutors which are presented below. In the attempt to highlight the argument that the process encouraged and facilitated reflective practice, one participant offered the comment of one trainee: “When discussing reflective practice theory, one student remarked that this process had made him far more active in reflection as suggested by Reid”. This brings to mind Reid’s (2003) description of reflection as ‘A process of reviewing an experience in order to describe, analyse and evaluate and so inform learning from practice’ (p.306). It would seem that what this particular trainee was able to benefit from was the availability and currency of evidence to be reviewed that the use of digital recording offered.

Providing further evidence that the use of digital recording in feedback facilitated reflection and helped to link trainees theoretical knowledge of reflective practice to the reality of practice, another tutor noted; ‘I am confident it allowed students to develop their critical reflection. It related well to the theory of reflection through lenses (Brookfield, 1995) that I teach’. A further comment; ‘It also allowed students to reflect on reflection. They could identify how reflection can be more active and critical when viewing something from a different perspective’ again contributed to the sense of marrying the theoretical knowledge of reflective practice to practice.

Drawing from the ongoing, one can suggest that the real strength of the use of digital recording in feedback from the perspective of tutors is the potential it has for enabling trainees to contextualise their theoretical knowledge in the reality of practice. From the point of view of tutors, this is understandable, as it helps them in the achievement of the planned outcomes for the programme. On this evidence, therefore, one may conclude that tutors find the use of digital recording in the feedback process useful not only for the actual feedback event, but also in the consolidation of previous theoretical knowledge of the principle of reflective practice.
Several existing studies have established that there is a norm and a form of expectation in the relationship between trainees and tutors in the feedback process (Copland, 2010, Tracy, 2008). These studies in the most part have concluded that group feedback has its own norms of interaction which include the right to perform face threatening acts (Copland, 2008), and permit what Tracy (2008) refers to as acts of ‘reasonable hostility’. Within the framework of this relationship, it is evident that tutors have consistently had the upper hand with the spectre of assessment and grading giving them dominance over their trainees. In the wake of such power relation norm, it was important that this research explored the views of tutors on a potential change in the power relation structure which the use of digital recording might engender. As such, this segment of the discussion sought to find out whether tutors anticipate a change in the power structure and if so, what their responses to such a change might be. How would they respond to what Copland (2010:1) refers to as ‘acts which challenge the norms and therefore can be considered more conventionally face threatening’?

A number of sub-themes emerged and led to the overall theme of shift in power relations. Included among these were; Tutors found that they have shifted from assessor to facilitator and, therefore, promoted the desired goal of de-conflating assessment and development, become less judgmental (prepared for unusual answers), pro-actively neutral and operate at the same level as trainees. In the most part, participants in this study appear to be comfortable with the potential restructuring of roles. Indeed, participants highlighted this potential restructuring as a desirable goal. One participant noted; “The role was democratised. The tutorial provided an opportunity to discuss practice in ways I hadn’t ever imagined. By sharing the video, we were able to view it together and instead of me telling the student what I saw, we discussed it e.g. “have you noticed how you have used your arms…………”

Another observed, “It was about discussion more so than just telling” “It became advisory—more democratic”.

While comments such as the one above, on the face of it, suggest that tutors might be happy to relinquish their hitherto taken for granted dominance over trainees, it is important that we do not assume that this would always remain the case. Considering that this was a one-off small scale pilot study, it is important that we do not draw any hasty conclusions on the basis of these comments. Crucial to this is the consideration of the long term effect of trainees growing into the role of equal participants in the feedback process and tutors’ awareness of the finality of such a reconfiguration. Drawing from an ethno-linguistic orientation, participants were requested to offer illustrations of their disposition towards the manifestation of the restructured relationship between tutors and trainees. This elicited a number of interesting insights. First, there was an indication that tutors were willing to be part of this new relationship because they felt that it promoted their own reflective practice. One tutor noted; “It caused me to reflect more on my own practice as I could revisit points during the viewing- look at it again” Another observed; “Instead of looking at it from different perspectives (student and teacher eyes) we could see it from the same perspective”.

Theme 2: A shift in power relations
The reference to the learning opportunities that this new structure offers tutors lends credence to the suggestion in (Ade-Ojo and Sowe 2011 and 2012) that a fruitful feedback process in the context of professional development through reflective practice must be co-productive in nature. In other words, there must be defined outcomes for both trainees and tutors alike. It also underscores the importance of eliminating the assessment component which has been identified as a source of tension in the process. As noted by one participant; “It was better without the spectra of a grade”

Nonetheless, a second order analysis of the comments made by some participants indicated that the role reversal might somehow be resented by some tutors. One participant noted; “My role definitely became more facilitative. I lost the ‘expert’ role and became more of a critical friend”. The choice of the word ‘lost’ is significant in this context. Can one really be happy with a loss? Another comment worthy of exploration here was; “My role felt a little secondary’. Again, one could ask; could people really be happy if they perceived their roles becoming ‘secondary’? While we have no definitive answers to these questions at this point, it is evident that the potential for tutors to resent the ‘loss’ of their ‘expert status’ and the conversion of their role to a ‘secondary’ one deserve some attention.

Perhaps in mitigation of the implied resentment of the loss of their ‘expert role’ another participant noted; “I found that students took much more of an active role. I was more passive and listened to what students told me about what they saw”. “My role was more about summarising what the students thought and told me with additional questioning to extend their reflection” “My role allowed for questioning that got students to relate what they saw to theory”

The ongoing gives an indication that there are a number of possibilities in terms of tutors’ response to a potential shift in power relations. A move towards the use of digital recording in facilitating collaborative feedback in the context of reflective practice for development must, therefore, find a way of accommodating both possibilities. In essence, tutors must be physically and psychologically prepared so that they can accommodate the possible shift in power relations. One comment that lends credence to this; ‘We need to develop additional skills: questioning skills, active listening skills’ suggests that some of the tutors were already aware of their own developmental needs, if they were to effectively shift from their previous role to the one induced by the use of digital recording.

Theme 3: Perceived limitations

The use of digital recording was considered a new way of doing things. As such, it was considered important that potential limitations to the implementation of this approach were explored from the view of tutors. Two key points emerged in terms of the potential limitations. First, participants felt that there could potentially be a procedural problem. This revolved around the creation of a framework that would enable trainees to engage more reflectively with the process. A key question to emerge was; what type of framework could we develop that would enable trainees to happily relinquish their previous role and dependency on their tutors? Would this framework be perceived as additional work by trainees? Because trainees in this project identified a similar problem
(See Ade-Ojo and Sowe 2012), it is important that this potential limitation be carefully thought through. One possible way of responding to this might be to integrate the whole process into a model of managing change. From this perspective, the crucial element of change management including identifying the process and the future by analyzing and explaining how and why the changes to be made are important (Scheid, 2011) must be put in place. Some comments from participants which highlight their apprehensions about the procedure alluded to the time element. One participant noted; “It was more time consuming” When it was suggested that this would ultimately require the same amount of time that the tutor-led feedback would, the participant noted “I know. It was more about not having the tutorial straight away compared to the other observations” “Because there is an actual artefact and there are lots of competing for our time, it can be left and done later”. The crucial point here is the need to factor this potential source of limitation into the planning process for implementing the use of digital recording.

The second source of apprehension revolved around the issue of differentiation. Central to this was the view that because of the varying ability levels of trainees, some trainees might not be sufficiently competent to take ownership of the process and implement it in a manner that would be beneficial to them. The following comments might help to put this in perspective; “Although it made students consider theory when reflecting, but some could not relate to it even with this trigger question” “In general, only those who used it as an aide memoire found it a useful trigger”. These observations suggest that the use of such devices is probably not something that can be implemented using a one-size-fits-all framework. Rather, as is expected of teachers, it is important that we explore creative ways of addressing differentiation, even in the implementation of principles such as this. This, in our view, is the challenge for all of us as practitioners.

Further discussion and conclusions

Overwhelmingly, there appeared a shift to the promotion of equality in observation feedback between educator and trainee from that of the ‘pedagogical high ground’ taken by the educator (Copeland, 2010) in more traditional observed practice. There is some evidence that this comes with some apprehensions which can be associated with the relative ‘redundancy’ of tutors within the framework of this new relationship. However, this fear of ‘redundancy’ of the educator could be ameliorated by the reliance of the process on the engagement of educator in a dialogic manner (Alexander, 2008). This is accentuated through the finding that the trainee was more able to engage and link theory from their Initial Teacher Training programme, to practice using this approach. The tutor lost their ‘expertises’ in ‘telling the trainee what they saw’ to a more scholarly facilitative role in relation to making sense by drawing on underpinning theory. With this in mind, it appears that this approach provided a vehicle for greater transformational learning (Mezirow, 1975, Taylor, 2007), in that trainees’ ability to take responsibility for their own learning was further enhanced. This is developed through the opportunity offered by tutors, who now appear to be assuming a more constructivist stance in the observation process, thus challenging the trainees’ “frame of reference” (Mezirow, 1991, Creswell, 2007).
The finding that tutors now see trainees as more able to engage with a deeper level of reflection could arguably constitute a source of cognitive dissonance for trainees (Festinger, 1957; Daloz, 1986 and Rice, 2004). This might be because of the necessary change in perception that this deeper level of engagement might induce or even demand. As such, it is not unexpected that tutors saw themselves as unconsciously adopting a more facilitative role to support trainees (Rice, 2004, Daloz, 1986), who could be seen as seeking a realignment of their knowledge, skills and understanding, a process which Mezirow (1991) refers to as ‘subjective reframing.’ A positive outcome of this, as indicated in the finding, is the facilitation of a more communicative learning situation (Habermas, 1981; Mezirow, 1997 cited by Choy, 2009). This would undoubtedly support the trainee’s subjective reframing by sharing the reflective insight of the tutor. An inevitable fall-out of this, which is confirmed in the findings is that tutors themselves experienced a process of subjective reframing which is triggered by a conscious reflection on their new status and how this fits into the framework of a more co-equal and co-productive (Ade-Ojo and Sowe, 2011) process. It is, therefore, not surprising that this underlying process of reframing caused a degree of cognitive dissonance which echoes what (Perkins, 1999) refers to as ‘troublesome knowledge’.

The final concern raised by tutors in respect of lack of differentiation and establishment of the procedure though not unexpected is still worthy of attention. It is not surprising that trainee’s engagement with the process in relation to efforts, motivation and sharpness of reflection is likely to be varied across the group. One possible source of this concern might be the pervading ‘assessment umbrella’ that appears to be inexorably linked to teaching observations and by implication, feedback. An interesting point to note, however, is that assessment of the practical element of ITT is not differentiated in its outcomes. A direct impact of this situation is what we consider to be a ‘generalised audit of performativity’. A salient question, therefore, is; could the preponderance of this element of performativity be responsible for the concern reflected in this finding? The answer in our view is yes. A potential way around this might be for trainees to be given a significant degree of responsibility such that they dictate to some extent the agenda for feeding back to them. In this context, each trainee would be able to map out aspects of their practice around which they would want their feedback to be focused at specific times.

This in a sense would introduce the element of differentiation. In effect, while this concern is credible, finding a way around it might not be so onerous. Furthermore, this supports the clamour for assessment to be de-conflated from developmental feedback in order for it to promote in a more effective way, the goal of professional development through reflection.

Drawing from the findings of this study, we could arrive at the following conclusions. First, it is evident that tutors associate a measure of positivity to the process and on the basis of that perception, we can assume that tutors are reasonably happy to engage with it even though they acknowledge its transient nature and the demands it can potentially make on them in terms of responsiveness.

A second conclusion draws from the indication of limitations to the process as identified by tutors. In particular, the shift in role can trigger a form of psychological resistance to the use of this process. While this has not been loudly articulated, it has regis-
tered a seeming surreptitious presence which needs to be taken into account. In attempting to implement a process such as this, therefore, it is important that consideration be given to a process of surmounting the potential barrier that this ‘hidden’ resentment might generate.

Finally, there are some lessons to be taken forward by other professions involved in developing practice. The first of this is the prominent negativity associated with the shroud invoked by the association with assessment. It is evident from this and other studies that assessment can deflect from the goal of developmental feedback.

Consequently, it is essential that professionals who utilise developmental feedback, particularly those who would want to facilitate it through the use of devices such as digital recording, consciously devise strategies for de-conflating feedback from assessment. A further relevance of the findings of this study for other professional spheres is the potential transferability of both positive and negative features of the process. In professional settings where professional development through reflection is encouraged, it is important to take into account these findings in order to fully reap the potential benefits of using this and other similar processes. By the same token, in professional settings within which a regime of performativity reigns, there are benefits to be reaped from veering away from the culture of ‘generalised audit of performativity’ to embrace a differentiated model of feedback, which would enhance professional development for both tutors and teacher trainees on the one hand and managers and managed on the other.

Correspondence

Nicola Sowe
Ph.D, Research Fellow & Independent Consultant
Faculty of Education & Health
University of Greenwich, London SE9 2PQ
Email: nicola.sowe@ntlworld.com

Dr Gordon O. Ade-Ojo
Principal Lecturer, Faculty of Education & Health
University of Greenwich, London, UK
Research Fellow, University of South Africa (UNISA)
School of Education, Avery Hill Campus
University of Greenwich, London SE9 2PQ
Tel: 004442083319349
Fax: 004420833119504
Email:ag22@gre.ac.uk
References


TEACHER TRAINERS’ ATTITUDES TOWARDS THE USE OF DIGITAL RECORDINGS


