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# Critical realist research: ethical issues and dilemmas as illustrated through a doctoral study in an African university

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Critical realism combines a realist ontology (there is a social reality to find out about) with a relativistic epistemology (the reality will be experienced and interpreted differently). It aims to identify the underlying causal mechanisms that give rise to observed events. It does this by looking at the dialectic relationship between 'structure' and 'agency'.

Critical realist research involves a deep, holistic study of a situation which aims to understand the wider context, the nature of the social structures and how people are empowered and constrained in exercising agency. In this study the researcher worked with five teacher educators in an African University to investigate their agency with respect to pedagogic change in a context which is demanding new approaches to teaching.

Ethical issues were identified at the outset, and as the study progressed, the implications of working in a critical realist paradigm became more apparent and led to the emergence of more issues and dilemmas.

This chapter examines these dilemmas and reflects on the implications for the researcher and the participants. It concludes with a discussion of the ethical implications of working within a paradigm which requires researchers to go beyond description and analysis in order to seek explanations. (199)

## Introduction

This chapter describes a study in which the researcher worked with a group of teacher educators (TEs) in an African university. The context of the study was professional learning in teacher education, and the aim was to understand the professional lives of this group. The Open University (OU) has an active 'International Teacher Education and Development' (ITED) group with on-going development projects, supporting the professional development of teachers and TE in various contexts. The aim of the study was to provide a voice for TEs - the professional group who are at the heart of our activities.

The study was carried out by a TE based in England, creating an interesting tension between 'insiderness' and 'outsiderness' (McNess, Arthur and Crossley, 2015) and involved a group of African TEs who had access to and some involvement in, the OU's longest running development project, Teacher Education in sub Saharan Africa (TESSA). It was conducted within a critical realist framework, a paradigm which requires researchers to go beyond description and analysis in order to seek explanations. In the field of international development, donors provide considerable levels of funding; there is a strong moral imperative to answer questions about impact in depth and to develop understandings of what works, for whom, in what circumstances (Tikly, 2015). Traditional

accountability mechanisms, such as logframes, provide a simplistic view of development work, often implying that problems have been 'solved'. The best we can hope for is that problematical situations become slightly less problematical, and, often, new problems emerge. The choice of the critical realist paradigm was an attempt to develop deeper understandings of complex situations. However, it presented a set of ethical challenges, which are described in this chapter.

## The Study

TESSA aims to improve the quality of TE by providing: open educational resources (OER) which support teacher development; resources and models for practice-based professional development; and mechanisms for collaboration (Moon, 2010; Moon and Umar, 2013). The TESSA model for change is based on the assumption is that solving problems in complex systems involves working at the point where the problem is most immediate and 'the closer one is to the problem the greater is one's ability to influence it' (Elmore, 1980, p. 605). Many 'top down' initiatives become diluted as instructions filter down the layers to teachers who will implement the proposed changes (Dyer, 1999). There is no blueprint for how the TESSA OER should be used, rather the expectation that professionals will find models of use which tackle local problems (Harley and Barasa, 2012). The TESSA programme makes use of grant funding to mediate and develop OER to support improvements in TE. One TESSA project involved working with colleagues from Ghana, Zambia, Kenya, Tanzania and Uganda to develop resources to support secondary science teaching. Social constructivism was taught in universities, but not modelled, and poorly implemented in schools. The aim was to provide resources to bridge the gap between theory and practice for student teachers and teachers.

A visit to Kenya and Tanzania in 2015 to evaluate the use of these OER, by teachers and TEs and their impact of practice, suggested that the OER supported teachers in developing more active pedagogies. However, teacher educators did not see the resources as being relevant to their own practice and there remained a lack of modelling of active pedagogies in teacher education. This threatens the successful implementation of new curricula, such as those introduced in these countries (Brodie, Lelliott and Davis, 2002). This study set out to find out why this is the case.

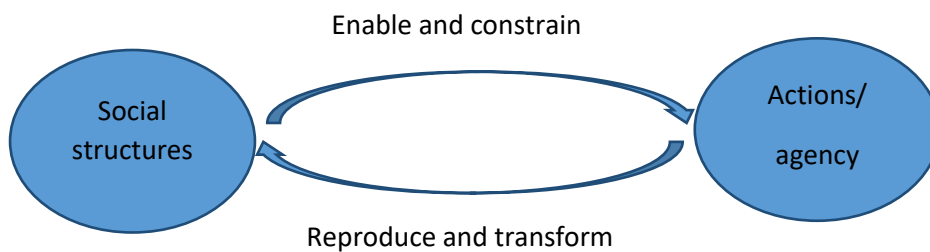
In the study the researcher worked with five science TEs in an African University. The University was part of the original TESSA consortium and was involved in TESSA Secondary Science, but – by their own admission – TESSA OER were not embedded in their programmes. Data came from documents, observations, and semi-structured interviews. The researcher was known to the participants and had worked closely with three of them over five years. She was an 'insider' in that they had worked together, and they all had similar professional roles. However, as a visitor from another country, she

was also an ‘outsider’. As noted earlier, she occupied an uneasy space between the two positions (McNess, Arthur and Crossley, 2015) which called for high levels of reflexivity and empathy (Savvides et al., 2014).

## Critical realism as a framework for studying teacher education

The chosen paradigm was critical realism. Critical realism combines a realist ontology (there is a social reality to find out about) with a relativistic epistemology (the reality will be experienced and interpreted differently). It aims to identify the underlying causal mechanisms that give rise to observed events. It does this by looking at the dialectic relationship between ‘structure’ and ‘agency’ (Archer, 1998; Bhaskar, 1994). This is shown in Figure 12.1.

*Figure 12.1: The relationship between structure and agency*



In this study the researcher investigated the ‘actions/agency’ with respect to pedagogic change of a group of TEs who work in a context which is demanding new, radical, approaches to teaching. The research involved finding out as much as possible about the prevailing social structures (Figure 12.1) in order to understand how the agency of teacher educators is constrained and empowered, and why implementation of the TESSA OER is problematic. This provided insights into how to support the professional learning of TEs.

In this study, professional identity was seen as ‘emergent’ – emerging as actors take action in a social situation. By understanding their professional identity and how it was formed, the researcher was able to develop an understanding of the social structures and how they empowered and constrained TEs with respect to pedagogic change (Stutchbury, 2019).

The notion of ‘social structures’ requires some unpacking, as the definition used in the study gave rise to ethical dilemmas as the research proceeded. Scott (2010) defines five social structures:

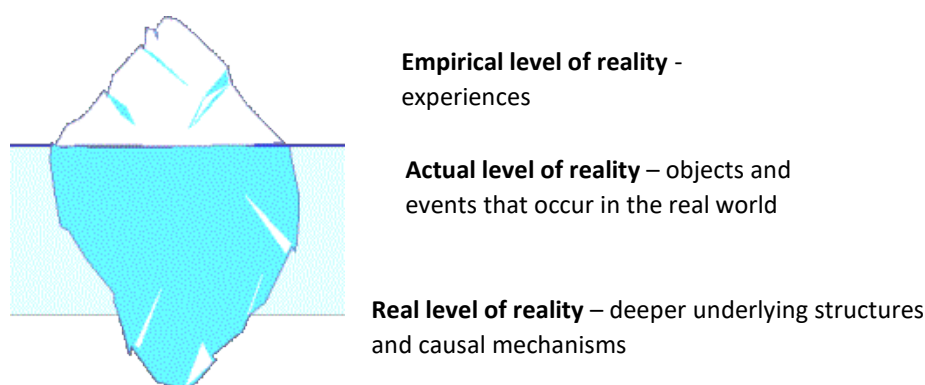
- **Embodied structures** – those which are fixed and which restrain action, such as the curriculum or social norms.

- **Discursive structures** – the framework of ideas which underpins the activities of the group concerned - ideas about, how students learn science, how people learn to be teachers and pedagogy.
- **Institutional and systemic structures** – the social norms, values and roles within the institution, including the relationships, the hierarchy and the expectations of individuals; which behaviours are valued and which attract sanctions.
- **Structures of agency** – the qualities, knowledge and understanding that individuals bring to the group, which have to be accommodated and can empower and constrain the agency of others.
- **Social markers** – gender, age, ethnicity and social class will impact on how individuals see their role and how they interact with others.

The analysis involved using interview, observation and documentary evidence to deduce the nature of the social structures and to consider the ways in which they constrained and empowered the agency of TEs. For reasons that will be explained later, only the embodied, discursive and institutional structures were considered, even though the intention at the start was to consider the whole range of structures.

In critical realism, reality is conceptualised as an iceberg (Wynn & Williams, 2012). The assumption is that visible ‘events’ on the surface are caused by underlying ‘causal mechanisms’ which operate beneath the surface and the purpose of the research is to identify the underlying causal mechanisms, through an in-depth, holistic study which considers people and their context. See Figure 12.2.

*Figure 12.2: The three levels of reality conceptualised in Critical Realism*



At the ‘empirical level of reality’ the researcher asks ‘what can be ‘known’ about this situation?’ This involved a description of the context and factual information about how teacher education is

organised. Interview, observation and documentary evidence for each participant was combined into a descriptive 'professional narrative' for each participant. These accounts included extensive quotes from the interviews, alongside descriptions of documents relevant to their role, observation notes and field notes. No interpretation was involved at this stage, only the consolidation of the data (Miles and Huberman, 1994).

The 'actual level of reality' describes what is happening in the situation but may not be immediately obvious. It requires some interpretation and was accessed through analysis of the professional narratives and other documents about the course. This analysis revealed the nature of the social structures; the perceived agency of the participants within these structures; and four disconnections. These were aspects of the situation which contradicted evidence from the empirical level. They were:

- Education policies expect new, active and learner-centred pedagogies (empirical level), but such pedagogies are not discussed or enacted (actual level).
- The department has a good reputation in the area, with all the student teachers easily finding employment (empirical level), but analysis of course materials suggests that aspects of effective teaching (Hattie, 2012) are not assessed. The focus of lesson observation is on the teacher, with little attention to learning. Success for students depends on the examination of theoretical knowledge.
- Research is taken very seriously, with promotion prospects for academics depending on publications (empirical level) but the findings from research are not integrated into teaching (actual level of reality).
- All participants identified strongly as scientists (empirical level) but the pedagogical content knowledge associated with teaching science (Shulman, 1986) was absent from the course (actual level). Students did not discuss how to teach specific scientific topics that are known to be problematic.

This is consistent with research in the field of teacher education (Cochran-Smith, 2003; Moon and Umar, 2013), and with experience from TESSA (Stutchbury, 2016; Wolfenden et al., 2017). This matters because it is preventing the successful implementation of policy aspirations (Schweisfurth, 2011) and means that in many countries teacher education is not considered to be 'fit for purpose' (Dembele and Miaro-II, 2013).

In critical realism, the reasons for the disconnections in the actual level of reality are considered to lie in the 'real level' of reality. Immersion in the situation, in-depth interviews and detailed observations enable the researcher to make inferences based on evidence that explain the observed

events and identify 'causal mechanisms' (Tikly, 2015). Sustained change is much more likely if these mechanisms, and their impact on practice, are understood.

In this study, two causal mechanisms were identified. The first concerned the nature of knowledge about teaching. The ontological disconnect between the view of teacher learning which underpins this teacher preparation course, and the view that manifests itself in the TESSA OER, makes it clear why TESSA OER have not been integrated into the programme. Learning to teach on this course was conceptualised as learning a set of rules, which are tested through formal examinations. TESSA sets out possibilities and encourages teachers to practise and reflect on classroom experiences, recognising that teaching rarely yields a 'right answer' which can be transferred between contexts.

The second causal mechanism was the observed lack of collaborative spaces, both physical and intellectual, for TEs. This university was hierarchical; cultural norms respected age over ability; and it was difficult for lecturers to admit that they might need help. Education and experience had not prepared them to lead on the implementation of current policy aspirations, yet they find themselves in the position of being considered expert, without access to opportunities to work collaboratively to learn new skills.

The study also concluded that the TESSA OER had the potential to be an underlying causal mechanism, in that, if they were used by teacher educators to plan and carry out their teaching, some of the disconnections would be challenged, thus providing some justification for the continuation of our work.

## Ethical analysis

In order to identify the ethical dilemmas, a framework to structure ethical thinking that will be explored in Chapter 14, was used (Stutchbury and Fox, 2009). As an epistemological tool, it is not linked to a paradigm or worldview; rather, it provides a set of questions to interrogate a situation. Given the position of the researcher as an insider/outsider and the desire to find out about agents' intentions, ethical deliberations were about the interaction rather than the actions of the researcher and could not be separated from methodology (Parker, 2007). The framework encourages this way of thinking, and the analysis that follows includes some evaluation of the research design.

The framework was applied to this study as follows:

Dimension/perspective	Details	Interpretation in this study
External/ecological	Issues surrounding cultural context and the wider implications of the research	<ul style="list-style-type: none"> <li>• The wider justification for the project;</li> <li>• the risks to the institution and the participants;</li> <li>• cultural considerations;</li> <li>• meeting the requirements of the two universities involved.</li> </ul>
Consequential	The consequences of the research for society, individuals and institutions (Stutchbury and Fox, 2009).	<ul style="list-style-type: none"> <li>• The Open University ITED group and our work in teacher education;</li> <li>• the university which was the site of the research;</li> <li>• the participants;</li> <li>• the researcher.</li> </ul>
Deontological	Deontology is about 'doing your duty', regardless of the consequences. This could mean, for example, 'always keeping promises' or 'always telling the truth', the implication being that breaking promises or being dishonest will cause 'harm'. A deontologist would argue that certain actions are acceptable regardless of the consequences, because they are morally 'right'. Ethical codes and principles are built round the notion of 'avoiding harm' (Bond, 2012).	<ul style="list-style-type: none"> <li>• 'Harm' could be to identity, relationships or reputation, and what constitutes 'harm' will be different for different people.</li> <li>• The reflective, narrative interviews being conducted were unusual for these participants and it was not clear how they would react. As academics they were involved in research themselves, - mainly quasi-experiments and large-scale surveys, in a positivistic paradigm.</li> <li>• Participant observation inevitably involves not being completely open and honest (Robinson-Pant and Singal, 2013), particularly when the observer is also a TE and cannot suspend their own professional knowledge.</li> </ul>
Relational	Covers the 'core rationale' and reflects the importance of building constructive relationships with participants (Bond, 2012; Robinson-Pant and Singal, 2013; Tikly and Bond, 2013) based on trust.	<ul style="list-style-type: none"> <li>• The researcher was known to the participants for five years - two have received recognition and promotion as a result of working on TESSA.</li> <li>• How not to impose too much on the participants?</li> </ul>

The specific dilemmas that emerged at each stage of the research are discussed in the next section.



## Ethical issues and dilemmas

### Overall considerations

The potential consequences for this research for the wider community were positive, both in terms of informing the work of the ITED group within the Open University and strengthening the voice of an under-represented group - African TEs (Tikly and Bond, 2013). Educational development projects rely on public funding or charitable donations, and there is a moral imperative to make sure the money is spent wisely. The TESSA programme started in 2005. An independent evaluation in 2012 (Harley and Simiyu Barasa, 2012), demonstrated that teachers and teacher educators who engage with TESSA OER, change their practice in positive ways and report more participation and enthusiasm from their students. Since TESSA does not target a specific subject, and the resources are 'open', collecting quantitative evidence of improved learning outcomes is very difficult. There is a moral imperative therefore to find ways of better understanding the impact of TESSA in order to inform current activities. The findings from this study have informed subsequent activity resulting in a greater emphasis on collaboration, practise and reflection, and significant gains are being made (Stutchbury, 2019; Stutchbury, Dickie and Wambugu, 2018; Stutchbury, Gallastegi and Woodward, 2019).

The ways in which there could have been 'harm' to the participants emerged during the research (deontological perspective): this was the 'layer' of the framework which presented the greatest challenges and dilemmas. The unusual nature of the relationship between the participants and the researcher (relational perspective) proved to be crucial in terms of generating authentic data, but highlights some of the wider implications for critical realist research.

### Start of the study

During the planning stages, three dilemmas emerged: how to navigate the cultural landscape in order to organise a project which was rigorous and would answer the research questions (ecological); how to recruit participants and ensure that consent was informed (relational) and how to introduce the research so that it is understood by gatekeepers and participants (ecological and relational).

The data showed that the university concerned is a hierarchical institution; colleagues had great respect for each other and for the hierarchy (Stutchbury, 2019). Members of the department did not judge those in authority. This is different from many UK organisations, in which people are ready and willing to challenge the hierarchy, even to an outsider (e.g. Davis, 2013). This could have limited what was possible to find out about institutional structures by talking to people and meant that

sources of data beyond interviews were needed. Access to documents was not an issue, with participants willingly sharing course documents, without being asked. Observation was more difficult, as in this context, TEs are autonomous in their own classrooms, rarely discussing practice, beyond the division of the curriculum, and never observing each other. For this reason, data collection was deliberately arranged at the time in the year when 'micro-teaching' was taking place (when student teachers teach each other in a short lesson). This provided rich data and was less threatening to participants (avoiding possible harm); their own practice was not under direct scrutiny, yet the students' practice provided insights about what was (and was not) being taught.

A risk to the institution is that through exposing their practice, they are open to criticism. Anonymity is important, but a tension raised in critical realism is that the detailed consideration required of context means that the university concerned would be recognisable. The educational experiences of the participants have not prepared them for what they are being asked to do within current policy frameworks, and they deserve a huge amount of respect for what they have achieved. Any judgements made by the researcher need to be considered within this context. In reporting this research, anonymity was maintained by omitting some references to work the participants had published (avoiding possible perceived negative consequences for the institution).

Even though the researcher was known, the cultural norms of the institution made approaching potential participants problematic. Most TEs in the university have a laptop or access to a desktop; it was therefore assumed that email would be an appropriate way to make contact. A message was composed and forwarded by one of the participants to colleagues in the department. This was not successful; TEs communicate with each other by mobile phone rather than email, and the message only precipitated replies from people the researcher had already met. The researcher felt very uneasy about cold-calling potential participants even though it would have been culturally acceptable to them. It felt uncomfortable within the cultural framework in which UK universities operate, in which participants need to be free to refuse. A 'cold-call' was more likely to put them under pressure to take part, especially given the cultural divide, with the researcher being a white female from a UK university. There was a delicate balance to be struck between recruiting participants and genuine informed consent.

Overall, the participants identified enabled the researcher to answer the research questions; she worked within the cultural norms of the institution and did not pressurise people into participating, or offend anyone. The sort of reflective conversation they were being asked to engage in is unusual in their culture, and, although two were somewhat amused by the questions, they were prepared to take part. The small number of participants and the fact they were known to the researcher in

advance, perhaps limited the scope of the data collection. However, the trust that already existed and the common understandings established through working together, led to greater depth in the data.

The study focused on ‘professional identity’ which in critical realism is seen as ‘emergent’ – emerging as actors take action in a social setting. An account of the professional lives of teacher educators (Lunenberg, Dengerink and Korthagen, 2014) draws on 137 research papers in order to describe the dimensions of the work of a teacher educator, only two of which are outside the Europe, Australia and the USA. The research was therefore framed in terms of wanting to understand the role of the TE in the African context and the challenges with respect to pedagogical change. An explicit aim of the research was to capture their voice, so that it could contribute to international understandings of teacher education.

An ethical appraisal for the researcher’s institution was carried out. The well-structured forms supported ethical thinking and enabled the researcher to clarify details of the research. Permission to conduct the research and approach participants was granted by the Chairman of the Department of Education in the university concerned. He also agreed to be interviewed himself and provided data about the institutional structures within the university. Detailed information about the study was shared, which highlighted the importance of understanding the challenges and opportunities that pedagogical change presents for TEs. The researcher agreed to feedback findings and recommendations for practice, which was welcomed by the Chairman. No questions were asked and with hindsight and more experience, the lack of curiosity about the research was possibly a concern, perhaps highlighting a power dynamic in which permission would automatically have been granted. In subsequent projects the researcher has been more pro-active in asking questions to ensure that the gatekeepers fully understand the research.

### During the study

As the work proceeded issues based around the participants emerged – the potential consequences of the research for them, and the risk of causing them harm. In this situation, causing ‘harm’ to participants could involve: taking up too much of their time, confusion about the purpose of the research and making them feel inadequate by challenging their professional identity.

The sort of in-depth, conversational interviews proposed, were time consuming. To manage this, two or three shorter interviews were conducted, giving the researcher the advantage of being able to review the questions in the light of their initial responses. Communication was by text message.

The researcher always made sure she was on time, going to locations where they were working in order to minimise the inconvenience. The length the stay in the setting was a compromise between gathering sufficient data, not being a burden on the researcher's host, and maintaining the integrity of the research by suspending her own professional persona. It was difficult for the researcher to avoid engaging in any sort of discussion of practice; if she had been there for much longer, there would have been pressure to become involved in teaching, which could have impacted on the data.

Having worked together for five years, the researcher and the participants were probably as close as they could be in the post-colonial context to considering each other to be equals. Even so, a few things happened during the fieldwork that reminded the researcher that it would be easy to disrupt that situation. For example, one of the participants set a written test for students which was shared with the researcher. It was difficult to understand the point of the test. It was presented as evidence that students were being taught a practical skill: how to write a test for pupils, and the participant was proud of their efforts. Analysis of the test, showed that it did not test the students' ability to write lower- and higher-order questions on a specific topic, only that they knew the rules that 20% of the marks should be allowed for higher-order questions etc. As she struggled to understand the point of the test, the researcher was in danger of asking too many questions, which might have highlighted its inadequacies. Fortunately, she realised this in time and no harm was done. This incident was revealing in terms of the findings, but reporting it presented some challenges.

Another potential consequence included the risk to their reputation if they felt as if they were being criticised for the way they carry out their role. The researcher had to be very careful not to ask questions which implied something about their practice which they felt they 'ought' to be doing. As a TE with interests and concerns about the field, it was impossible for the researcher to suspend herself from the situation she was in, but it would have been unhelpful and counter-productive to honestly reveal all that she was thinking.

As the interviews proceeded, however, the positive impact of educational research became evident. Participants enjoyed talking about themselves and their practice; two explicitly remarked how helpful it had been to have the opportunity to reflect in this way (and wrote some notes during the interview). One sent an email later with further information demonstrating that he had been reflecting on the questions. The over-emphasis on the warrant to avoid harm (Bond, 2012) means the potentially positive consequences of carrying out qualitative research are often ignored.

Although they regularly observe student teachers teach, the participants are not observed themselves by their peers or managers. After a few days and the first round of interviews, three of

them agreed that the researcher could attend the micro-teaching sessions and one invited her to a lecture he was giving. These opportunities were invaluable. The differences between the groups in micro-teaching provided insights into how the groups had been taught and therefore what the participants valued in terms of learning to be a teacher. One participant was not keen to be observed. They did not specifically say so, rather, they just omitted to invite the researcher to sessions, even though, they probably knew it would have been appreciated. This view was respected and the researcher was not persistent, even though it would have enhanced the research. The position of the student teachers with whom the TE participants were working was more complex. Informed consent was not sought from them as it was not clear that they would have felt able to withdraw. Also, observation is such a crucial part of learning to teach, the presence of a third party in their teaching sessions was not exceptional or unusual.

However, being 'informed' is important and good manners. When observing micro-teaching, the researcher introduced herself, explained that she was not there to judge them as individuals, that she was undertaking research about teacher preparation in Africa, and gave some general feedback at the end, congratulating them on their efforts and highlighting some specific examples which demonstrated their developing skills. The fact that the TEs trusted the researcher to represent them fairly was very important. This initial trust arose from joint endeavour on TESSA Secondary Science and was enhanced, by paying attention to the social trajectory (Ball, 1993) of the research.

As an insider with ideas about teacher learning, how to frame the interview questions so that they did not imply what good practice should be like, was a challenge. Two approaches were adopted. The first was to obtain a narrative account of how the participant got to be where they are, the choices they made and why they made those choices. This helped to understand their perspective (Bruner, 1991). Secondly, the literature on critical realist research suggests that interview should be 'theory-driven' (Smith and Elgar, 2014). This involves providing scenarios, asking participants to comment and reflect back a summary of what they are saying. As a TE herself, the researcher was able to devise authentic scenarios which gave the interviews more depth that would have been possible from someone outside the field. The interviews were structured around ideas about professional identity (eg Boyd and Harris, 2010; Davey, 2010; Dinkelman, 2011; Murray and Male, 2005); open-ended creative conversations would have entailed the researcher revealing more of herself, which would not have been appropriate (Smith and Elgar, 2014). However, the structure was loose and the interviews generally went in a direction determined by the participant.

During one of the interviews the implications of 'structures of agency' became apparent – personal characteristics which agents bring to the group which have to be accommodated. The participant

concerned was very experienced and appeared traditional in their approach. The interview however, revealed that they had some radical ideas that would have greatly improved the teacher preparation course in this university, but that they lacked confidence and the tools to implement these ideas. It was at this point that the researcher realised that personal characteristics, such as a lack of confidence, are significant in terms of the underlying causal mechanisms. However, what amounted to an assessment of this individual's personality, felt intrusive in the context of a research project. The dilemma here is that critical realism provides the opportunity for considerable depth, but how much depth is it appropriate for an uninvited outsider to expose? It was therefore decided to focus on understanding the embodied, discursive and institutional structures, as the findings about these would inform the work of the ITED group and are more likely to be generalisable. 'Structures of agency and 'social markers' (Scott, 2010) were dropped from the analysis.

### Reporting the study

TESSA Secondary Science has not made the impact in this university that was hoped for, and the purpose of this research was to seek explanations for this. This agenda is not something that was shared explicitly with the participants as it could have been disappointing for them to realise that that is how the project team feel – although some of them might agree – and it would have definitely impacted on what could have been found out, maybe precipitating some defensive responses. Having multiple agendas is inevitable owing to the 'insiderness' of the researcher and the desire to search for explanations; how this was to be reported required careful thought.

The researcher was very careful to present the research questions in a way which would be meaningful to the participants and did not imply any criticism. There is no doubt however, that the researcher would want to mediate the doctoral thesis which came out of this work. It includes accounts of their individual agency, based on the narrative interviews and interpretation of the social structures. These accounts were carefully written with the participant's possible reaction in mind, but nevertheless it remains source of slight unease should they stumble across the thesis.

One way in which this risk was mitigated was by feeding back to participants in a way that affirmed their practice but also provided challenge; a written summary of the findings was provided, including recommendations which could assist some of the participants in negotiating internal processes and hierarchies. This was greatly appreciated; four out of the five participants replied immediately on receiving the summary, saying how useful and insightful it was. Although not obviously thirsty for CPD, the participants were keen to learn from the TESSA network. There is enough data from this

study to write a paper about the professional role of teacher educators across cultures and one way of demonstrating respect for colleagues will be to make them co-authors on such a publication.

The doctoral thesis that came out of this work was proof-read by a professional copy editor, who raised an interesting issue. The thesis contains many quotes, as evidence for the points being made. The quotes are from the transcripts and are presented exactly as they were said, including hesitations as this demonstrates that the participant was thinking deeply about the response, or finding the question demanding. The instinct of the proof-reader was to 'tidy up' the quotes and make them grammatically correct; the instinct of the researcher was to give a voice to the participants by including their own words as part of the evidence for the conclusions. In further discussion, the proof-reader felt that if the participants read the thesis they would potentially be embarrassed by the inaccurate grammar in their spoken sentences. The examiners commented on the rigour provided by the inclusion of authentic quotes and on the authenticity of the research, so in the context of a doctoral study including the quotes was the right thing to do. However, the impact on the participants of seeing their words written on a page should perhaps also be considered.

## Conclusion: the ethics of critical realist research

The decision to work within a critical realist paradigm was an ethical one. The aim was to deliver findings that make a difference, shaping practice in a complex field. The potential of critical realism to do this is also demonstrated in other studies, (e.g. Davis, 2013; Tao, 2013), revealing significant insights which have the potential to impact on practice and change working environments for the better. Progress in institutions is often impeded by 'invisible' forces. These 'invisible forces' could include many different aspects of the situation. This project identified two, which are relevant to our international development work and are informing current activities. Critical realism surfaces the underlying social realities that often manifest themselves as 'barriers' to change. It has been argued that the metaphor of a 'barrier to change' is unhelpful as it suggests an immovable object (or circumstance) which is often used as an excuse (Checkland, Harrison and Marshall, 2007) for inaction. Researchers working in the field of health (ibid) have shown that if the underlying issues are tackled, 'barriers' melt away. In this work, drawing on literature in the field (e.g. Schweisfurth, 2011), it was argued that the two causal mechanisms, challenge established 'barriers' to the implementation of pedagogic change, and therefore make a contribution to knowledge in the field.

There was also evidence that taking part in the study impacted positively on the participants, as evidenced by some of their reactions during the interviews and the correspondence received when the researcher shared the findings and recommendations.

However, as shown above, the research design was driven to a significant extent by the potential impact on the participants and the sensitivities caused by the insider/outsider position of the researcher. The analysis of the social structures was limited to those which were relevant to the purpose of the research within the context of an international partnership. Consideration of 'structures of agency' (Scott 2010) - the qualities, knowledge and understanding that individuals bring to the group, which have to be accommodated and can empower and constrain the agency of others – would almost certainly have revealed more underlying causal mechanisms, relevant to bringing about pedagogic change. However, as this study demonstrated, this is not something that can be investigated by an outsider. The focus on embodied, institutional and discursive structures was enough to provide insights relevant to the partnerships at the heart of our development work. The close relationship and established trust between the researcher and the participants, developed over time, was a crucial aspect of this study and highlights the possible limitations for others interested in this approach.

The depth and detail required, creates a number of dilemmas which were evident in the study described here, and would need to be considered in any study within this paradigm. Critical realism recognises the importance of context in understanding social structures and in describing and reporting research, maintaining anonymity is challenging. Yet 'hiding' the context challenges the credibility of the research for those wanting to read about it. How the participants are portrayed and what will be reported to a wide audience requires a great deal of thought. In this study, publications will make sure that the country, the institution or the people cannot be recognised – but in some ways this feels unfair, as their voices have made, and continue to make a significant impact.

There is perhaps a case for critical realist research being participant-led in an institution or organisation which is seeking to solve a problem or to react to a changing context. In those circumstances the participants would be invested in the research and the outcomes, which would contribute to collective and individual professional learning. And aspects of 'structures of agency' and 'social markers' (Scott, 2010) could also be considered. However, high levels of trust and honesty would be required and it is possible that some people could be made to feel uncomfortable. This study suggests that although there is a strong moral case for critical realist research in terms of



improving practice and changing organisations, it should not be undertaken lightly and has the potential to challenge the professional identity and confidence of those involved. (6000)

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