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## **Researching Teaching: Telling the hole'd truth and nothing but my truth?**

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***Abstract.** This paper describes some of the first moves made in a newly introduced Masters module called *Researching Teaching*, which focuses on the practice of teachers. These initial interactions have much to say about different subjective perceptions of truth, and the extent to which an objective position is possible for any viewer. After the incidents and experiences on the course have been described, the author goes on to question the feasibility of some of the claims by researchers that they maintained an objective view while researching the practice of mathematics teachers.*

### **Introduction**

The School of Education at the University of Cape Town in South Africa, introduced a newly designed Masters in Teaching in 2000 which consisted of four taught modules each of 24 hour duration followed by a dissertation on the students' chosen field of research. The course proved to be an immediate success in that in this first year of operation, it had a higher student enrolment than the other specialities offered within the Masters programmes in the School of Education. Now in its second year of operation in 2001 (again with the largest intake of students), students are required to take two compulsory modules, each of 24 hours teaching time<sup>1</sup>. The first is called Teaching and the Modern Condition, and it takes a macro view of education from a perspective of the modern/post-modern debates. The second compulsory module is called Re-Searching Teaching and is rooted in realities of practice of the students and incorporates many of the ideas of the Discipline of Noticing as outlined and developed by John Mason in various publications (see for example, Mason 1994, 1997)<sup>2</sup>.

### **Starting to re-search teaching.**

The first sessions of the Re-searching Teaching course are often the most difficult to run in that teachers taking the course generally express fairly confident views of their practice in public, and also have a very well-established set of gambits for talking mainly about those aspects of teaching with which they feel comfortable. The challenge for the presenter is to confront these complacencies as early in the course as possible. How can the lecturer ask these teachers to break from this carefully constructed world of certainty and attempt to consider different possibilities for teaching? In the descriptions below I have chosen to describe the initial unfolding of the course in the first person in an attempt to preserve the personal nature of the interventions. The class in question consisted of 15 students from a variety of teaching sites and subject specialities.

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<sup>1</sup> The development of the course and the theoretical tools on which it is based are described in Breen (2000a, 2000b).

<sup>2</sup> In fact, John Mason was a guest lecturer for the first run of the Researching Teaching class in 2000, and had run 8 of the 12 sessions.

### **i) Talking about teaching...**

For the first activity of the module, I ask the students to watch a videotape extract of a teacher in action teaching sets in a fairly recognisably teacher-centred way, where he asks questions from the front of the class and the pupils stand and give their answers to which he responds in a talk-and-chalk manner.

Students are asked to comment on what they saw in the extract. There is no difficulty getting them to offer their comments. The talk is about what they liked or did not like about what they saw, and it is clear that their own belief system forms a template against which they interpret the success of the teaching method employed. "I liked the way he got the pupils to count the things on their desk and got them actively involved in the lesson. I always try to make my lessons hands-on", offers one student. Students also start to show familiar roles that they will take on in later classes. One person always looks for the good in people and tries to focus on the good aspects of the lesson, while another adopts a familiarly critical role. One student slips into a long anecdote about an incident that the excerpt has reminded her of from that same day in class, where a pupil had enjoyed talking in class for the first time and his attitude had change. She recounted her enthusiasm and excitement at this development and the others in the room nodded their heads. Although this is only the first meeting of the class, I can feel that they are beginning to develop a sense of togetherness and safety, as they feel more and more safe to talk in their usual way about teaching. No-one challenges anyone else's interpretation.

After about 20 minutes of this discussion, I stop the conversation and ask if anyone has learnt anything new about teaching from the discussion. Has anyone been struck by anything exciting in what has been said? What would they say if I told them that the rest of the course would consist of them sitting around and talking about different teaching excerpts in exactly the same way? There's general agreement that each contribution had stimulated similar stories and that while it was good to chat, nothing really worthwhile had been said and certainly nothing challenging.

*It seems to me that this is the most common form of shared teacher talk about classroom practice. As a teacher, I have a lot to say about what happens in my classroom, but I'm very careful that most of what I say in the staff room is going to be uncontroversial so that I can feel part of a collegial group. If I want to be controversial or want to express some real feelings, I make sure I talk to someone I know feels the same way I do about that particular topic, so that my opinions will be re-inforced rather than challenged.*

### **ii) What do we notice?**

The class moves on. I play a videotape extract of Hugh Masekela playing at a Free Nelson Mandela concert. He's playing his trumpet and singing a pulsating song, which speaks of his desire to see Nelson Mandela walking in freedom along the streets of Soweto in South Africa. At the end of the tune, I stop the tape and ask the class to replay the tape in their mind and push the pause button when they come to a frame that was particularly striking to them. I ask them to describe the freeze frame and explain why they chose this particular moment. There seem to be two particularly powerful images that are chosen.

The first is of a close up of a crowd picture where someone is holding up a T-shirt. Mike is the first to select this image and he describes the frame as being a picture of a

white male aged between 20 and 30 years, who was holding up a T-shirt which had something political written on it. He cannot give any more details about what was written on the T-shirt.

Christine has chosen the same moment, and she reports that she saw someone (she can't say whether it was a man or woman) holding up a T-shirt with the picture of a young Nelson Mandela on it with the words Release Mandela under the picture. Even after these two stories have been told about the same image, Mike is still not able to recall having seen a face on the T-shirt and Christine is not willing to commit herself whether it was a man or woman holding up the T-shirt. Being told by the others is not helpful to them, as they cannot recall the details.

*Enactivism is a theory of cognition, which has recently been developed (see for example Davis 1996, and Varela, Thompson and Rosch 1991). In enactivism, we are regarded as being structures, which are determined by our biological and historical roots, as well as by our environment. When faced with a perturbation to the environment each structure is triggered in a unique way since each structure is uniquely determined and evolving. In this instance, I can conjecture that Mike and Christine have been 'perturbed' by the same image but the differences in their 'structures', particularly their histories have meant that they have focused their gaze in very different ways.*

The other commonly re-called image is of a group of policemen standing on a hill overlooking the stadium where the concert is being held. Cheryl recalls that there were three policemen standing on the hill and that they had struck her because of their menacing presence. Fred tells the class that there were four policemen and that they looked extremely bored as if they were just waiting for the concert to end. Asking further, we find that Fred has spent time overseas in foreign speaking countries and has a generally favourable view of policemen as sources of assistance to him. Cheryl, in contrast, has had many traumatic experiences of the brutality of police during the apartheid years in South Africa.

Who is correct? Is one version of the story more correct than the other and does it really matter? The quantitative data is in doubt. Were there 3 or 4 policemen present? A second viewing of the videotape will be able to establish this fact. But what about their attitude? Each will be able to find aspects of the picture to further establish the truth of their view of the tone in which the policemen were present. However that tone is largely created by the historical experiences of the viewers.

*So the question of the classroom researcher becomes clearer. If the classroom interaction has not been recorded there is no way to return to the incident to check the facts as to whether there were 3 or 4 policemen present. Even more worrying is the observation that Mike and Christine would have recorded different data concerning the T-shirt and its holder. If we do have a videorecording of the interaction, we are obviously in the first place at the mercy of the person recording who will only record what s/he is predisposed to 'see'. Even then we have to be aware that we are likely to ascribe different interpretations to the images. Cheryl saw menacing police while Fred saw bored police. And what each saw was heavily influenced by their life histories. I would conjecture that the more one cares about, or has experience of, the situation under observation, the more one's history will skew the type of observations one is likely to make. Is this conjecture skewed because the topic of the Masekela videotape is extremely emotional – particularly to South Africans?*

### **iii) Back to the classroom.**

The next stage of the activity is where I bring this closer to the classroom, and show the class an extract of a situation where I am teaching a class of primary school pre-service mathematics teachers. The extract has me pushing the class to decide (and motivate) which of the options  $86 \times 74$  or  $84 \times 76$  will give the larger answer (or are they equal?). In the extract shown, a female student has an animated interaction with me. At the end of the videotaped extract, I ask the class for their comments about what they have just seen. The introductory work we have done on the previous piece of classroom videotape has alerted them to the difficulties of commenting on videotape and of subjective comments, but the topic of the extract again seems to draw people into it.

As in the Masekela extract their observations are strongly influenced by their experiences of mathematics classrooms in the past and by the way in which they are comfortable or uncomfortable with the teacher taking a provocatively challenging position. The most frequent initial comment is that this is a scary teacher who is really pushing the students. For example, Mthunzi says, “Chris, you are a bad teacher, because you were frightening the student”, and Colin talks of me browbeating the student. It becomes extremely difficult to ask the students to name their data that allows them to come to these conclusions, but they are vehemently strong in their opinions. They know what they saw and they truly believe they are telling it like it is.

The degree of subjectivity becomes clearer when we practice an exercise from the Discipline of Noticing, where the students are asked to give a report of what they saw which omits any assumptions, interpretations and justifications, but instead focuses on the details of what was actually seen. The observers are able to come to an agreement that the responding blonde student’s arms became more active and demonstrative as she replied to me and also that she frowned. This may well be interpreted as her increasing anxiety as Mthunzi and Colin had said, but the presentation of the ‘facts’ allows Serge to voice a different interpretation. He feels that the blonde student was enjoying the attention of the camera and was showing off and twirling her hair around.

After much deliberation, the majority of the class agrees that the teaching style was rather provocative and challenging and that they would have felt quite threatened in the class. Kim, who had been in the same class on the extract, is shocked that others should find this threatening and tries to argue that the class had actually liked this way of teaching and that no-one felt threatened at all. Further exploration establishes that those who felt that this was a confrontational method of teaching mathematics had struggled with the subject and had disliked teachers who pushed them in this way.

*Again we see the observers seeing data which substantiates their previously held beliefs based on their own experiences. The previous exercise, which highlighted subjective interpretations, cannot overcome these deeply held histories. Someone who was present makes a contrary claim, but does this ‘being there’ deserve any higher status? We can easily imagine others who were present at the time having equally subjective alternative views based on their previous life histories.*

### **Going further.**

The temptation now is for the educational researcher now to turn away from the classroom and to try finding more satisfactory ‘objective’ sites for the pursuit of knowledge. The module on Researching Teaching does no such thing. Having

established that we are each triggered by individually relevant events or moments that have their basis in our lived experience, we turn our attention to our enactive presence which means that we are engaged in a constantly shifting state of interaction with other parties as well as the environment.

In another class where the same videotape of Hugh Masekela's contribution to the Free Mandela concert was played, two people selected the same instance of someone in the crowd holding up a T-shirt as their freeze frame. In one case, the face on the T-shirt was identified as being that of a young Nelson Mandela while for the other person, it was clearly a picture of face of the murdered Steve Biko. In talking to the two to try to find a way of coming to agreement, we were faced with two entrenched positions. The exchange between the two went "it was", "it wasn't", "it was", "it wasn't". In this case we did have the possibility of settling the dispute by replaying the videotape and the rest of the class started agitating for me to do just that.

Instead of doing this I asked each of the two in turn, why it was important for them that the face belonged to a particular person. Each person individually came out with a powerful personal story that took the class vividly back to the time of the struggle against apartheid and each individual's pain at the events that were taking place.

*The point to be made here is that the pursuit of the facts has been claimed to be subjectively biased according to the structure of the observer. Arguments after an event often remain at the level of arguments claiming a factual high road without any means of resolving the issue. The shift into the telling of stories about the 'subjective fiction' that has been observed, offers both the audience and the story teller an opportunity to gain new insights into the event and into the influence that their own history has contributed to their perspectives. The stories can be used to enable shifts in perception or possibilities for future action.*

For example, Alfred told the class about an incident that had taken place with a friend of his where he felt that he had not handled things correctly. Having told the story in one way, he worked on telling the story as an account-of. Once the story had been reduced to something like: My friend phoned and asked me for some money again. I asked her why she had not budgeted properly. She asked me to come round to her house. I went round and after a while started shouting at her. I caught myself and realised that this was not what I wanted to do, so I apologised and gave her the money and then left.

The neutral way in which this story has been told allowed the rest of the class to come in from different personal perspectives to offer multiple ways in which the situation could have been handled differently. "I would have made her come to me". "I would have chosen a public place to meet such as a coffee shop". "I would have got a third party present". "I would have made her sign some written deal before handing over any money". Accepting that this is a story gives the opportunity for the teller to put the story out in the open for the class to work with. Each time someone adds something it is clear that they are offering something from their own perspective and that their contribution in most cases tells us more about them than it does about the situation.

### **Post-reflections**

In South Africa there is an increasing demand for large scale objective research which will be able to inform the government as to best practice in the teaching of mathematics

and form a basis for future education policy (Taole 2000). In working towards this seemingly reasonable goal an increasing number of researchers are making claims that they are merely there to comment what is going on in the observed classrooms rather than to evaluate what they see.

Varela (1999) writes about the way in which we have failed to pay attention to the extent to which our actions and observations are ruled by our habits, which in turn are an integral part of our structures. He makes a plea for us to also focus some of our research energy on what he terms the 'hinges' that provide windows of opportunities for us to consider alternative actions as we pass between habitual microworlds. These insights from the enactive theory of cognition, together with the experiences of working with teachers with videotaped extracts as described in this paper, lead me to doubt how possible it is to respond to Taole's challenge and to accept the claims of objectivity of educational researchers. It seems a far more worthwhile project to accept that the stories told by all researchers (including those who claim an objective stance), can in effect only give us another partial view of the total picture. Furthermore, the results obtained and reported are more likely to tell us a great deal more about the researcher and his/her historical predispositions than they do about the researched target.

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