254.702 Teaching Critical Incident Reflection Lorraine Taylor

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**Assignment One: Reflective Journal**

**Describing**

At the start of Term 2, I took a long term relieving position at a decile 10 private school in New Zealand. The Year 11 mathematics class that I was given proved to be a challenging class to teach from the start. The students were angry that the teacher that had started teaching them at the beginning of the year was given another class. I heard comments such as, “ this is a private school, our parents are paying for the school and we should not have to change teachers.” As well as, “I need to get math credits so I can go to University.” It took a long time to build up a positive rapport with the students in this class.

These students found mathematics difficult yet were expected by the end of the year to gain the necessary NCEA credits. They were a 7th streamed class out of 8 classes. I observed lack of motivation, low self-confidence in the subject, and lack of interest to complete work. I tailored my teaching to address these issues. I included group and pair work. I began to see some positive effects in regards to this with a few of the students.

The level of mathematics of these students was low; yet, the pressure to pass NCEA exams at the end of the year was high. I ended up teaching in a way that I did not like. I used a lot of power points to go over exam questions. We worked through these step by step for part of the lesson. The students were not interested in doing too much work each lesson but would attempt a few tasks each day. A few of the weakest students wanted me to copy on the board the examples from the book and explain them. They were frustrated when I chose different examples, even if they were very similar to the ones that were in the textbook.

**Informing**

As I reflected on the year with this Year 11 math class I considered Bernstein’s statement that “education can have a crucial role in creating tomorrow’s optimism in the context of today’s pessimism” ([Bernstein, 1996](#_ENREF_1), p. 5). What I witnessed in this class was a crushing of optimism. I felt that I spent a year shoving bits of mathematical content and exam technique down the throats of young adults so that they could gain the credits that they needed to get their ‘bus ticket’. This ‘bus ticket’ presumably would get them accepted to University which would ensure good employment and standing within society.

Schools are important as places for young people to interact, learn, and develop. I do not feel that my teaching of this Year 11 class was beneficial to the students in the long term. The world is becoming increasingly more mobile and networked. It looks as if we are still trying to educate students for the industrial age when, in fact, we are moving into a virtual age. It looks as if we are inhibiting rather than enabling young adults.

Saltman wrote that “the most powerful groups in society monopolize the production and distribution of select knowledge deemed of most value while mechanisms such as testing and tracking make this knowledge appear as equally attainable and as unrelated to the interests of different classes and racial and ethnic groups” ([Saltman, 2005](#_ENREF_10), p. 81). There is a lot of emphasis at the moment for New Zealand to become a knowledge economy. I have wondered if the NCEA Mathematics Curriculum in the present state is developing mathematical knowledge to encourage a knowledge economy. There are many topics within mathematics that could be covered that would be more interesting and beneficial to a greater number of students. The Unit Standards in mathematics could certainly be seen as trying to make this knowledge appear equally attainable to different classes when, in fact, they are just smaller units of knowledge being tested which allow credits to be dished out.

I also considered Bernstein’s idea that “a school metaphorically holds up a mirror in which an image is reflected” Bernstein further notes that, “these images are projections of a hierarchy of values, of class values” ([Bernstein, 1996](#_ENREF_1), p. 7). In reference to the Year 11 Mathematics class that I taught, I see this as a mirror of a private school that reflects an image of producing students that achieve well within the National Curriculum. It is possibly a class struggle in a sense that the middle/upper class schools see the way to maintain a dominant hold is to ensure that students achieve well at subjects like mathematics, even if the curriculum holds little value to the students personally.

I also considered the reasons that parents would choose to send their children to private school and pay for something that is often considered a public right. Many agree that how well a child will do and what sort of person they will become will be shaped by the kind of education they receive. I find it quite interesting to note that the New Zealand Ministry of Education responded to the Law Commission report on legislation of private schools by stating, “the government wants to encourage a thriving private school sector because private schools encourage choice, educational innovation and competition” ([Education, 2010](#_ENREF_4)). Furthermore, in 2010, the Ministry of Education introduced the Aspire Scholarships that provide assistance for low-income families towards the costs of private secondary schooling. The Ministry contributes up to $15 000 per year towards the tuition fees of a private school for the duration of a student’s attendance at a private school. This scholarship cannot be used at state or state-integrated schools” ([Education, 2010](#_ENREF_4)).

It seems then that the government, on the one hand, believes it’s role is to provide an ‘adequate’ education for all. Adequate education referring to, in this instance, students receiving an education sufficient for them to become effective participants in the political process and to be able to be productive and self-confident members of the workforce. While at the same time, the government affords parents the individual freedom to spend their money on their children’s education. Furthermore, it looks as if the government is actively encouraging the prominence of private schooling within New Zealand.

**Confronting**

Assessment is without doubt one of the major ”drivers” of the teaching-learning process ([Brown, 2005](#_ENREF_2), Assessment). The teaching that I was doing was based on behaviourist principles. Rawlins and Poskitt describe behaviourist theories as ones that construe learning as the conditioned response to external stimuli. “The teacher’s role is to train students to respond to instruction correctly and quickly” ([Rawlins, 2008](#_ENREF_8), p. 45). The learning that the students were accustomed to was to figure out how to get the right answer. My relationship with the class consistently improved as I taught using more behaviourist methods. Any deviation into the application of what they were learning was often met with annoyance or refusal to complete the work. As soon as I provided lessons where they could learn set examples and then practice this again and again with similar problems the students started feeling successful. As a teacher I knew that I was not doing what Rawlins and Poskitt recommended. They stated that, “given the strong link between assessment and learning, helping students become increasingly in control of their learning requires effective use of assessment” ([Rawlins, 2008](#_ENREF_8), p. 46).

The learning for these mathematics students was limited given the goal that they wanted to gain credits more than they wanted to learn mathematics. The main stumbling block for these students was that they did not enter Year 11 with sufficient mathematical understanding and knowledge to attempt the work. This led to continual problems in trying to grasp concepts.

Constructivist theories of learning, which are based on Piaget’s ideas, focus on the development and construction of knowledge. “The role of the teacher is to help students integrate new knowledge with existing knowledge, and to organize this so that it is more meaningful and useful” ([Rawlins, 2008](#_ENREF_8), p. 45). It is imperative, in my view, to assist students to build upon their knowledge and apply what they know and to critically analyze related concepts. This is impossible to do within the time constraints given to Year 11 Math classes if the students do not begin with a certain level of understanding.

My experience in teaching students at Year 11 is that some are not academically prepared to tackle the syllabus. Assessment is defined as “the process of seeking and interpreting evidence for use by learners and their teachers, to identify where the learners are in their learning, where they need to go and how best to get there” ([Rawlins, 2008](#_ENREF_8), p. 42). Assessment in regards to this class was a collection of external exams that had to be passed at the end of the year. There was neither the skills nor motivation to allow this to happen successfully.

It should also be noted that the New Zealand education system since the 1990’s, after a decade of neo-liberal reform, has changed substantially. “The long-held social democratic values of collective responsibility and egalitarianism has been subjugated to values of commercial enterprise and entrepreneurial individualism and the central focus of education policy has shifted from citizenship to the national economy and the role of schools in fostering an ‘enterprise culture’. Education is to deliver the skills and attitudes required for New Zealand to compete in an increasingly competitive international economy” ([Codd, 2005](#_ENREF_3), p. 198). This strengthens the argument that the students are being expected to complete a math syllabus that focuses on building a knowledge economy. “Education in New Zealand is preoccupied with performativity (i.e. with what is produced, observed, measured) and has suffered a general loss of democratic vision. …This dominant culture is more concerned with what can be recorded, documented and reported about teaching and learning than it is with the educative process itself” ([Codd, 2005](#_ENREF_3), p. 202)

**Restructuring**

My concern with assessment driven curriculum is addressed in this comment from a peer.

You may be interested to know that the alignment of standards project which is currently underway is hopefully going to address some of the concerns you mention. At the moment the new Level 1 Achievement Standards have been aligned to *The New Zealand Curriculum* and in every subject the standards look very different than those previously used. For Mathematics and Statistics the difference is particularly marked. The curriculum is asking us to help our students with the ability to use and apply what they know in unfamiliar situations or across contexts. Students will need to experience collaboration and more open ended tasks to be successful.

Perhaps the New Zealand Curriculum is moving in the right direction.

I have often associated successful teaching practices that I have engaged in to social constructivist theories.

Social constructivism is a highly effective method of teaching that all students can benefit from, since collaboration and social interaction are incorporated. This type of constructivism was formed after Piaget had already described his theories involving individual or cognitive constructivism. Lev Vygotsky, the founding father of social constructivism, believed in social interaction and that it was an integral part of learning. Social constructivism is based on the social interactions a student in the classroom along with a personal critical thinking process. ([Powell, 2010](#_ENREF_7), p. 242)

“Learning is seen as something that takes place in a participation framework, not in an isolated individual’s mind. The learner is seen as an active participant, both shaping and being shaped by the ‘community of practice”([Even, 2002](#_ENREF_5) as cited in [Rawlins, 2008](#_ENREF_8), p. 45). In this regard, assessment needs to be reconsidered entirely from the type of assessment described in the incident.

We must also ask ourselves, “how do we educate our children to take their place in the economies of the 21st century given that we can’t anticipate what the economy will look like at the end of next week” ([Robinson, 2010](#_ENREF_9)). Scott McLeod included in his keynote speech at the 2011 Learning@Schools Conference in Rotorua and wrote in his blog that, “no generation in history has ever been more prepared for the Industrial Age” ([McLeod, 2011](#_ENREF_6)). Curriculums, school learning environments, and national assessments need to be redesigned so that students are prepared for the future. The global economy will not wait for schools to catch up.

Learning today is becoming more and more a continuous, connected and collaborative process. Learning professionals should be evaluating the improvement of network connections, competence and behavior, which correlates to improved engagement and performance.  The current NCEA curriculum needs to address this type of learning and assessment. Rawlins and Poskitt concluded “that effective teaching and use of assessment has the potential to empower students to become life-long learners” ([Rawlins, 2008](#_ENREF_8), p. 48)

Saltman brings up a concern that all schools should help students and teachers question and understand the world in ways that might lead to their participating in society and changing it for the better – to make it more democratic, equal, and just. (Saltman, 2005, p. 87) John Codd affirms that “education is about more than producing human capital or other economic outcomes; it is about creating democratic, open and reflective communities of learners and upholding every person’s right to learn.” ([Codd, 2005](#_ENREF_3), p. 205)

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