

# OVERCOMING THE BARRIERS TO INTRODUCE LESSON STUDY

## IN SOUTH AFRICA

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### **Abstract**

*In this paper I will be looking at the introduction of Outcomes Based Education in South Africa, and the implications thereof. To understand the implications of the implementation of the concept of Lesson Study in South Africa, I will firstly look at the historical perspective of the process of the development of Education in South Africa. The breaking away from the “old” schooling system was not an easy task. The teachers in South Africa faced a dramatic change from their old practice, since the introduction of Outcomes Based Education placed various demands on their teaching practice, some of which was not understood by the teachers. In order to understand the difficulties teachers are faced with, I will explore various barriers, or rather challenges which will have to be taken into consideration for successful implementation of Lesson Study.*

### **Historical Perspective**

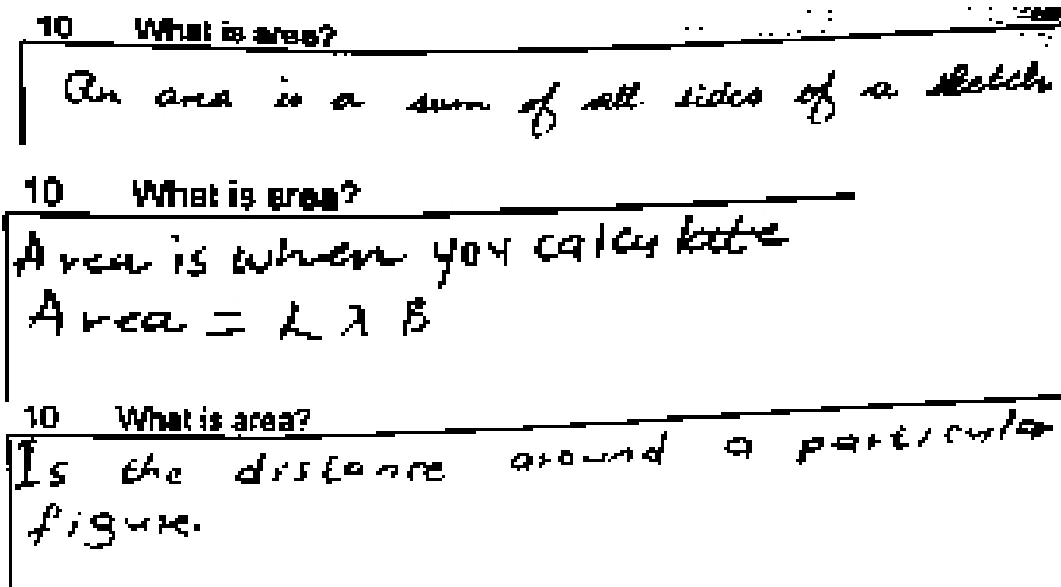
During the Apartheid regime in South Africa, each race was classified under its own Department of Education. Teacher training took place at various institutions, and most black teachers in South Africa received training at Colleges where they could either take a two year certificate course, or a three year diploma course at (black) Teachers Training Colleges. No black students were allowed to enrol at so-called “White Universities” This resulted in inadequately trained teachers, and of course, led to inferior teaching at the black schools in South Africa. After the first democratic election in South Africa in 1994, when Nelson Mandela became president of South Africa, a unique constitution changed the lives of all South Africans. In the education sphere, all Colleges of Education closed down, and were incorporated in the twenty-one universities in South Africa. To overcome the legacy of Apartheid, the most significant curriculum reform in SA of the last century was introduced. This was a significant break from the past. The process started off with grave difficulties, and “Curriculum 2005” was revised several times. Curriculum 2005 would be phased in in stages, and by 2009, it should be fully functional in all grades. Curriculum 2005 became synonymous with Outcomes Based Education (OBE). OBE was on the lips of everybody in education, concerned parents, the media and the general public. Few people knew what it was about, and felt threatened by the jargon, which was used to explain the new terms that had to be dealt with. One of the problems was that the advisors from the Department of Education, who were supposed to train teachers, did not understand the notion of OBE themselves, which in turn led to even more confusion. Ultimately the success of the implementation of Outcomes Based Education rests on adequately prepared teachers motivated to teach and support their work. Thus, an enormous task laid ahead for the universities, and the re-training of

teachers became a strong focus in the Education Faculties of Universities. In-service training programmes for teachers in South Africa, is an ongoing process.

### Content Knowledge

The first and possibly the most important barrier that will have to be overcome is the lack of content knowledge of teachers. Many mathematics teachers do not have a deep enough understanding of the subject matter they are supposed to teach, and do not feel confident of their own understanding. Because of this, teachers are still text-book bound, and traditional teaching methods still prevail. At the advent of OBE, it was advocated that classrooms must become “learner-centred” and that teachers must act as facilitators, instead of transmitters of knowledge. In theory, this constructivist view of teaching and learning must be applauded, but many teachers misunderstood their role as facilitators, and an “everything goes” attitude was adopted. This created problems when learners who came from the OBE background in Primary Schools, (grade 1 – 7) entered High Schools (grade 8 – 12). Teachers complained that learners had insufficient subject knowledge.

In my involvement in a training programme for teachers in the Intermediate and Senior Phases (grade 4 – 9) I conducted a diagnostic test at the onset of the training programme. Some of the questions and answers are shown here to illustrate the misconceptions teachers had.



I envisage that Lesson Study can play a vital role in the improvement of content knowledge for teachers in South Africa. As Adler (2003 : 5) states, “...teacher education will be more effective if it is focussed on examples of practice and more direct experience in the classroom and alongside experienced teachers”

## Resources

The lack of resources is perceived by many teachers as a barrier in their teaching of Mathematics. Most rural schools have a blackboard as their only resource. In the training programme I mentioned earlier, I tried to show teachers that fancy, expensive resources are not always necessary to introduce Mathematical concepts. In the module “Measurement”, I started with the basic concepts and used anything that I could lay my hands on. We used toilet rolls, beans, clay, match sticks and many other manipulative that we could find around the house. For the first time in their teaching careers, these teachers understood the basic concepts of measurements, and were involved in hands-on activities.





In this training session, teachers were engaged in the workshops, but at that stage “Lesson Study” was completely foreign to me, thus, although there were incidents where teachers had to explain their understanding to their peers, we never employed the planning of lessons per se.



The success of Lesson Study in South Africa will also depend on the improvisation of resources. Teachers can become aware of the fact that resources for Mathematics are all around us. However, in over-crowded classrooms in South Africa, where learners work in groups with a set of resources, some of them never touch the manipulatives, and are merely on-lookers of what their peers are doing. Often teachers have to make the resources at their own expense.

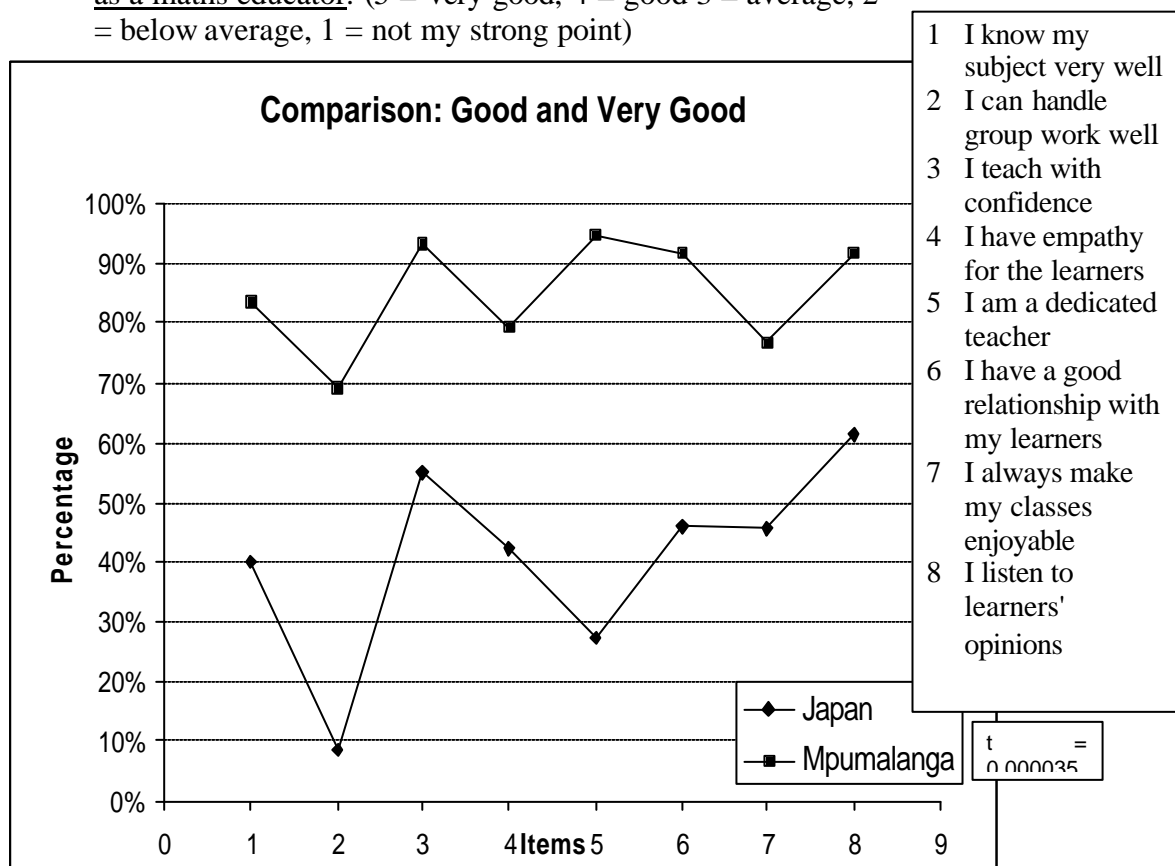
## Language Barriers

South Africa has eleven official languages. This includes nine African languages, English and Afrikaans. Although the official language of teaching is either English or Afrikaans, we find that in the rural areas, especially in Primary Schools, that the language mostly spoken in schools is that of a particular community. In urban schools, multilingual classrooms where learners of any of the eleven languages could be in the same classroom, but English is the dominant language. English is sometimes the second or even third language for some learners, therefore teachers use code-switching as a pedagogical strategy. Code switching occurs when the teacher or learners switch from one language to another. Teachers are therefore faced with the major challenge with continuously teaching Mathematics, but also English at the same time. Multilingual classrooms indeed place a far more profound demand on teachers in South Africa, than in first world countries.

## Teachers' Own Perceptions of Their Classroom Practice

In my survey of classroom practices between teachers in Japan and Mpumalanga (a province in South Africa), a very interesting phenomena was observed. The following question was posed:

Please give yourself a rating for each of the following quality as a maths educator. (5 = very good, 4 = good 3 = average, 2 = below average, 1 = not my strong point)



The graph above speaks for itself. In view of the successes of Japanese students in TIMSS, it seems as if the teachers from Mpumalanga exhibited an inflated perception of their subject knowledge. I do not think it is intrinsically bad to have a positive

perception of your own classroom practices, but when teachers in South Africa are exposed to Lesson Study, I am sure they will benefit from the consequences of sharing which lies at the heart of Lesson Study.

### **Teachers afraid of “intruders” in their classrooms**

At a recent conference of Independent Schools in Pretoria, I became aware of the fear teachers have to allow “strangers” in their classrooms. Most teachers showed no interest in becoming part of a Lesson Study group. The challenge to me will thus be to start on a small scale, and use platforms such as the annual AMESA (Association of Mathematics Educators in South Africa) conference which will be held in July this year, to advocate the advantages of this practice of in-service training and professional development. Teachers will firstly have to be convinced that Lesson Study must not be seen as invasion of their classrooms. They should be made to feel confident that Lesson Study is only a tool that has enormous implications for the improvement of, not only their teaching, but also for the learning that takes place in a classroom. Only when this barrier is overcome, and teachers do not feel threatened by this “new” way of in-service training, can there be the slightest of beginnings with this endeavour.

### **Conclusion**

As pointed out, there are several barriers that need to be overcome before Lesson Study can be implemented successfully in South Africa. These, however are rather seen as challenges. A small scale work on Lesson Study will be undertaken in Pretoria, and once this is established, a wider circle of schools will be included. This project must be seen as a long term endeavour, and the ultimate success thereof will depend on the impact it has on the preliminary accomplishments.

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