

PROSPECTIVE TEACHER VIEWS ON SUSTAINABILITY AND ON ENGAGEMENT BETWEEN SCHOOLS AND MUNICIPALITIES

Presenter: Dr. R. P.PILLAY¹ and Prof. S.N. Imenda²

Institution: ¹University of Zululand, Department of Maths, Science and Technology Education.

²Retired Professor, Independent

PillayR@unizulu.ac.za / rpillay23@gmail.com 035 9026276 / 082 4349 500

Educational institutions (schools and universities) are places of learning where the social capital of society can be enhanced through collaboration and support with external sectors. The Natural Science school curriculum, Curriculum Assessment Policy Statement (CAPS) has reference to environmental issues within the context of sustainability. The Natural Science school curriculum is intended *to address the need for using scientific knowledge responsibly in the interest of ourselves, of society and the environment* (DoE: 2011:9). Various topics which synergise with the environmental responsibilities of municipalities include energy saving, conservation of ecosystems, the impact of the production and/or use of materials such as metals, plastics and fuels on the environment, recycling and health issues. These curriculum topics and the responsibilities of municipalities provide a common arena for schools and municipalities to work together. The views of prospective teachers on how schools and municipalities could interact with each other in a meaningful way were elicited through a research questionnaire based on teaching strategies.

KEY COMPONENTS OF THE EVIDENCE BASED RESEARCH

- Prospective teacher views on sustainability
- A brief overview of environmental issues in the Natural Science CAPS Curriculum (within the Intermediate and Senior Phase)
- Prospective teacher views on the role of municipalities
- Ideas on how schools and municipalities could work together
- Views of prospective science teachers on the role of competitions

BENEFITS TO ETHEKWINI MUNICIPALITY

- Potential to achieve some of the municipality's priorities
- Increase community awareness of the role and efforts of the municipality through interaction with schools
- Establish a rapport with educational institutions and the local community
- Explore the concept of interactive competitions for the purpose of collaboration
- Address a variety of environmental issues through the curriculum
- Opportunity to contribute to the knowledge development and skills in learners
- Use the research findings as a possible point of departure for planning

EXPANDED SUMMARY

Teachers and education institutions (schools and universities) can be considered as community focus groups to align the agenda of transformative governance, in particular the strengthening of partnerships for improved social capital. The school curriculum provides opportunity for schools and municipalities to work in partnership where environmental priorities and values are integral to the school curriculum.

The Natural Science school curriculum makes reference to three specific aims. One of the specific aims, (Specific Aim 3) makes categorical reference to '*Understanding the uses of Science*' and expands that *learners should understand the uses of Natural Sciences and indigenous knowledge in society and the environment* (DoE:2011:10). Using this as a point of departure schools and municipalities have a myriad of opportunities to build partnerships which are likely to ensure mutual benefit by enhancing the social capital of society through the development of the future generation.

This paper reports on research within the context of teaching strategies on the views of prospective Science teachers on sustainability, the roles of municipalities, ideas on how schools and municipalities could work together and explored the concept of competitions as an initiation point for sustainable partnerships. The research involved 91 prospective Natural Science teachers. While the analysis is yet to be completed, a preliminary analysis indicates the following: -

- prospective teachers have varying views of sustainability,
- prospective teachers as members of a society, as professional role players and as individuals are unaware of the priorities of the municipalities in which they live,
- there is a positive sense of prospective Science teacher's willingness to work in partnership with municipalities to enhance service delivery, for motivation and support of learners in the teaching and learning process and as activating the roles of learners as citizens,
- well - organised competitions, by the municipality could contribute to active and relevant learning.

The research findings will be of value to the municipality and can be summarised as follows: to brainstorm on how the municipality's priorities in educational institutions can be activated and strengthened, to explore the concept of environmental competitions with focus on the awareness and participatory processes and not only on outcomes, to explore curriculum integrated support projects in education institutions and to consider the views of prospective teachers in strategic planning activities.