

# **CURRICULUM TRANSFORMATION TO MEET THE NEEDS THROUGH TO 2020 AND BEYOND**

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## **INTRODUCTION**

Curriculum transformation is central to the future development and expansion of academic institutions in South Africa. At a time when the educational sector is experiencing enormous physical, policy and philosophical changes in South Africa it is essential that curricula reflect these changes and that learners are adequately prepared to meet the many challenges that face them in the future.

## **THE NEED FOR TRANSFORMATION**

The question can be legitimately asked, why do we need to transform our curricula?

Firstly, legislation dictates that all curricula and learning programmes must be transformed by June 2003 in terms of the South African Qualifications Authority (SAQA) regulations. In effect, this means that all qualifications and standards will have been transformed by Standard Generating Bodies (SGB's), scrutinized and approved by National Standards Bodies and finally endorsed by SAQA by June 2003. All qualifications and learning programmes underwent an interim process of registration which was completed by June 2000. The transformed qualifications will be written in an "outcomes-based" format with assessment criteria being a prerequisite. No institutions or training organizations will be able to present "non-transformed" programmes after June 2003.

The second, and possibly more important reason, for transforming qualifications relates more to the demands of our society and strong philosophical shifts in education in South Africa. In addition, there is an increasing need, internationally, for the sociological development of learners. We have entered the new millennium unsure of what the future holds, but of one thing we can be

certain; the new millennium will bring with it a host of new and challenging problems. There can also be no doubt that these new problems will require new solutions that will require new thinking and new approaches. It would be true to say that:

**“Thinking that has produced solutions that have been acceptable in the past, will not provide the solutions to the problems of the future”.**

As trainers and educators we must ask ourselves, are we adequately preparing our students to meet the challenges of the new millennium. We need to be completely honest in how we answer this critical question. All agriculturalists are aware of the fact that agriculture has become a highly developed science. However, what we need to appreciate is that agriculturalists are not just concerned with scientific concepts. Increasingly, moral, social and legal issues are becoming important. Do we have a responsibility to debate these issues with our students so that when they leave our institutions they, themselves, are able to engage in intelligent debate on these sensitive issues? There is an increasing number of educators who believe that we can no longer evade this responsibility. A few higher education institutions have already developed courses in ethics which are presented to first-year students. Natal University have gone so far as to create a Chair of Ethics. This Department works in collaboration with other Departments in the University in presenting ethics-related courses. One may legitimately argue that ethics courses should be taught at schools where it is possibly easier to inculcate ethical values from an early age. Ethics is defined as a set of moral principles, however, the objectives of this paper are to highlight certain issues in agriculture where the ethical, legal and economic implications may have a profound impact on the people involved with agriculture and the industry itself.

The issues outlined below represent the most important aspects where intelligent debate is currently required. We may, in the near future, find that other issues become important and in these cases the issues should be added to the debate. It is not the intention in this paper to discuss each item in any detail; such detail will be discussed in a subsequent paper. It is proposed that the issues outlined below should form part of the debate with students in academic institutions. It should also be understood that a number of the issues outlined below are subject to interpretation depending on ones political, ethical and social beliefs and therefore the power invested in the presenter of such courses is enormous particularly when viewed in the context of involving young and sometimes gullible learners. It is therefore imperative that presenters/facilitators of these courses obtain the latest factual information and apply a strong code of ethics themselves when presenting ethics-related courses. These courses must not form the basis for political propaganda.

## ISSUES THAT SHOULD BE INCLUDED IN FUTURE CURRICULA (ETHICS)

### HIV/AIDS

- # **Ethical Issues**
  - 👉 causes & symptoms
  - 👉 cures & prophylactics
  - 👉 perceptions & myths
  - 👉 responsibility of society
  - 👉 effect on society
  
- # **Economic Issues**
  - 👉 how economy is affected
  - 👉 effect on economy - current & predicted

### Conservation

- # **Ethical Issues**
  - 👉 the need to preserve biodiversity
  - 👉 the need to protect our environment
  
- # **Economic Issues**
  - 👉 the cost of preserving our environment
  - 👉 short-term & long-term economic issues

### Land Issues

- # **Ethical Issues**
  - 👉 land redistribution & land restitution
  - 👉 the need for land - agricultural purposes
  - 👉 legislation & policies - implementation
  
- # **Economic Issues**
  - 👉 the cost of land redistribution & restitution
  - 👉 potential value of farming to the economy (monetary & jobs)

### Animal Rights & Animal Welfare

- # **Ethical Issues**
  - 👉 differences between animal rights & animal welfare
  - 👉 do animals have rights?
  - 👉 animal research & experimentation

- # **Economic Issues**
- 👉 transport & slaughter of animals
- 👉 animal welfare
- 👉 housing of animals

### **Embryo Transfer & Cloning**

- # **Ethical Issues**
- 👉 genetic engineering - how far?
- 👉 cloning - how far?

- # **Economic Issues**
- 👉 value to the economy
- 👉 value to society

### **Genetically Modified Organisms**

- # **Ethical Issues**
- 👉 resistance to GMO's by consumers
- 👉 effect on human health
- 👉 value to society
- 👉 facts & myths
- 👉 religious concerns and beliefs

- # **Economic Issues**
- 👉 value to consumer
- 👉 value to farming economy

- # **Legal Issues**
- 👉 agricultural monopolies
- 👉 implications for the farmer

The second part of this paper relates to another aspect of student/learner development that, in the opinion of the author, has not received the attention in the past, that it deserves. This has to do with the development of a learner's thinking ability. This debate is not so much concerned with teaching students how to think, but the need to teach learners how to think differently. The reasons are quite simple. How often has one not heard the phrase "knowledge is power"? It is true, knowledge is power. It is however, also true that knowledge in the mind of someone who does not know how to use the knowledge (analyse, judge, evaluate, THINK), is in effect useless.

The 20<sup>th</sup> century saw an unprecedented proliferation of information (knowledge). The proliferation has been so great that we have, as teachers and more latterly as facilitators, clearly understood that it is not possible to teach learners all the knowledge that they need. We have instead tried to equip learners with the skills to find the required information and then to analyse and evaluate it in a sensible way. Some institutions have been proud of the fact, and indeed have promoted it as one of their strengths, that their students are required to think in order to successfully complete their courses and qualifications. The implication is that the institution has progressed from outdated educational philosophies where students applied rote learning and merely regurgitated information during assessment.

Whilst this shift has been necessary, one can legitimately ask is it enough? Instead of requiring students to think, should we not be asking ourselves if it has not become necessary to teach students not just how to think, but how to think differently from what we have been comfortable with in the past. If one critically analyses the curricula at most academic institutions, one will see that curricula have not changed significantly in the last 50 to 80 years. We still teach what we were taught, firstly, because we are comfortable with this approach and secondly, because there has been very little motivation to change. It is the contention of the author that the new millennium will bring forth a completely new set of problems that will require new and innovative thinking in order to solve these problems. As educators and facilitators we must therefore change our objectives. We need to move out of our comfort zones and critically assess what skills we need to be teaching ourselves and our students if we are to all be reasonably successful in the future.

Edward de Bono (2000) says that we must be able to focus our thoughts and apply them in a practical way. According to de Bono (2000) we must be able to generate ideas not just judge them. This requires a new approach to thinking and it is this approach that we must firstly, teach ourselves (facilitators) and then assist our learners in being able to think differently. We have to instil in ourselves and our learners that the ability to think is a life skill that is practised throughout one's life. We need to expose our learners to different types of thinking:

- 👉 Creative thinking
- 👉 Lateral thinking
- 👉 Design thinking

There is a strong school of thought that if one is able to apply the above thinking skills then one will be able to design one's future and not just respond to it (de Bono 2000). It is not possible within the confines of this short paper to outline how one would teach thinking skills, but suffice it to say that it is possible and that a number of games and

exercises exist that will assist learners (including ourselves) in how to think differently. Strategic planning, scenario planning and good old-fashioned establishment, evaluation and verification of hypotheses are all aspects that should become an integral part of a learners life.

Unfortunately, all too often, one hears that learners have to be specialists in a particular discipline when they leave an institution if they are to be able to secure and maintain a job in the field of agriculture. The rationale is that agriculture has become highly specialized. The argument is that we need to be teaching our learners more specialized technical skills and that there is no space or time in a curriculum to teach learners something as “wishy- washy” as “thinking skills”.

This is an unfortunate argument because it invariably demonstrates a lack of thinking ability on the part of the promoter of such an argument. One needs to understand that in any field one is only a specialist for a very short space of time before the knowledge and information becomes outdated and in some cases obsolete. One, therefore, has to constantly “be on top of the subject or discipline” if one is to remain relevant in the field. It is the authors contention that one will be more useful if one can apply well developed thinking skills to the knowledge and information that one needs in order to be an intelligent role player in a particular field.

The ability to “think on one’s feet” are the best skills that we can teach our learners if they are to be successful in the new millennium. Albert Einstein said “everything is changing...except the way we think”. It is time we begin to change the way we think. We can do our learners and agricultural education no greater service if we are successful.

## **REFERENCES**

**de Bono E, 1999.** New thinking for the new millenium. Penguin Books, London, United Kingdom

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