

Factors Necessitating Curriculum Reform

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Introduction

The only thing that is permanent, is change itself

By its very nature, education is a product of changes in society as much as it leads to social changes. Educational institutions are social institutions, set up and maintained by society, whose main function is to contribute to society's self preservation and perpetually shape the face of the ever changing environment.

Education enables people to master the environment and by so doing survive better. Over the centuries, there has been a positive correlation between people's level of knowledge of how to utilise and manipulate the environment for the benefit of the population of mankind on earth.

It has been established that human population between 1950 and 2000 increased by 2.5 times. This period also experience a knowledge explosion. Is it a mere coincidence?

The general model of the relationship between education and social changes is as follows:



Curriculum change

No curriculum is static. Curriculum is a reflection of its times.

"The term curriculum is used in several different ways in current educational literature. In the most limited sense the curriculum is considered to be everything that transpires in the planning, teaching and learning in an educational setting" (Tyler).

Philosophical basis of curriculum /development.

There are three key players in any education system i.e. the learners, teachers and society. Curriculum reform, like curriculum design, must take into account:

Learners

- The nature of learners: How do learners learn?

Knowledge

- The nature of knowledge: What knowledge is of most worth?

Society

- The nature of society: What is a good society?

A case for curriculum reform in higher education in Uganda

Learners

The demography of learners in Ugandan universities has changed drastically in the last decade. We now have many categories of students:

- (a) Fresh Senior Six leavers
- (b) Mature age entrants
- (c) Working class-including executives
- (d) Married students
- (e) New career seekers.

The age range of university students now ranges from 19 to over 70 years. At least in theory, it is now possible to have a fresh Senior Six leaver sitting in the same class with his father and grand father!

The various learners come to lecture rooms with very diverse background experiences. It is also possible that the different generations students have different expectations. The motivation for being in the lecture room is most probably different for different categories of learners.

Age and learning

- Attention-span and time-on-task increase with increasing age up to a point then begins to decline.
- Hearing begins to decrease after age 21
- Adult learners have different learning characteristics from those of young learners.

Social factors affect learning e.g. social economic status of the learner. The cost of university education in Uganda is many times the per capita income of approximately US \$300.

Global learners. As the world “shrinks” into a global village, the challenge for educational institutions is to train students for the global workplace. This demands that curricular in these institutions must reflect the global trends.

Virtual learners-with advances in science and technology (S&T), the recruitment area of educational institution is global. Feeders can now graduate learners they have never seen! The question is, how do we provide for the social and emotional needs of virtual learners?

Massification

- The high population growth rates have led to increased demand for education
- High secondary school graduation rates. Projected to be 101 million by 2050 – it is reportedly set to double every 20 years according to the Director of the Population Secretariat. (*The Monitor*, October 3, 2003:5)
- Increased enrolments for example at Makerere University without corresponding public spending on higher education. This has resulted in:
 - over stretched facilities;
 - pressure to generate income;
 - concerns about the quality of learning environment and whether or not universities are still focusing on the core mission.
- Massive education is considered critical to economic growth and development. For example, India in 2020 will have 200 million graduates and 500 million trained technicians (Prof. Prahalad quoted by Bernad King, 2004).
- Question:
 - Are universities training more people in more skills/knowledge or more people in the same content?
“If one keeps on doing what one has always done, one keeps on getting what one has always got.”
 - Are students demanding the correct “goods” from the universities?
 - Without meaningful curricular changes can increased enrolments in Ugandan universities lead Uganda to economic prosperity?
- Despite the increased enrolments, major challenges still remain, for example, “In 2015... African countries according to current trends would still find 54 million children out of school. If Africa, south of Sahara, is to achieve the targets set by the international community by 2015, it will require 88.1 million additional places in primary schools, 4 million more primary school teachers, and 9 million more places in tertiary education”

(Dhanarayan & Kanwar of COL in Perinbam, 2004).

What should learners learn?

According to the Delor's Report of the International Commission for Education entitled "Learning the Treasure Within" identified four pillars of learning:

- learning to know;
- learning to do;
- learning to be;
- learning to live together with others.

One may wish to add a fifth one: Learning to learn.

How do we achieve these goals given the increasing enrolment without corresponding facilities? Can they be achieved if we remain doing the same things we have always done? Curricular diversification is a shift from the 3Rs to the 7Rs which has created new demands on educational institution:

- Reading
- Arithmetic
- Writing

The knowledge revolution

Knowledge explosion and implosion – more knowledge is available than ever before.

- While the Industrial Revolution that started at the end of the eighteenth century in UK spread gradually and unevenly to Europe and beyond, the knowledge revolution has been more rapid.
- Advances in IT have made the ever-increasing volume of knowledge more accessible, effective and powerful. For example:
 - 1 megabit of DRAM cost \$5,257 in 1970 and only 17 cents (US) in 1999.
 - Data transfer costing \$ 150,000 in 1970 cost \$ 0.12 in 1999!
 - There were fewer than 20 million users of internet in late 1995, 4000

million in late 2000, and a projection of 1 billion by 2005.

- Fewer than 200 websites in mid-1993, over 20 million in late 2000.

Therefore, there are more people with access to more information at less cost.

Question: What is Uganda's role in the creation, dissemination, and utilisation of knowledge? How many patents do we register every year?

The centrality of knowledge

- The late twentieth century saw the growth of a knowledge-centered, as opposed to a manufacturing centered, economy.
- "*Participation in the knowledge economy requires a new set of human skills. People need to have higher qualifications and to be capable of greater intellectual independence. They must be exible and able to continue learning well beyond the traditional age for schooling* (Task Force on Higher Education and Society, 2000:17-18).

Technological transformation

- Technology has transformed the world and changed the way we may have to live our lives.
- Technology has normous potential for the transformation of the education sector.
 - Access (distance learning and e-learning).
 - Delivery system of education.
- 1990s: Technology's generous promise.
- Early 2000s: Emerging realism:
 - Blending learning – complementary mode.
 - Modified expectations of learner engagement.
 - Questions of institutional and sectoral readiness – skills, structures, standards.
 - Doubts about demand + revision of institutional models.

Questions:

- Where is technology taking us?
"We must not ask where science and technology are taking us, but rather how we can manage science and technology so that they can take us where we want to go" (René Dubos).
- Do we know where we want to go?
"If one doesn't know where one wants to go, any route will take him/her there".

We should be proactive rather than reactive to scientific and technological transformations. To achieve this, curricular transformations in our education system, at all levels, is a must.

We should start by establishing where we are for its hard for one to know where to go, if one doesn't know where one is.

What is needed?

- Curriculum reforms are needed so that universities can:
 - (a) Become centers of intellectual energy and creativity.
 - (b) Create a new generation of graduates who will be leaders in shaping the political, economic and social advancement of their countries in a modern setting.
 - (c) Cultivate a spirit of self-reliance.
 For example, in India, Dr Abdul Kalama distinguished scholar and scientist, headed India's space programme and directed the launch of India's first space satellite. He was educated entirely in India!

In order for us to harness the enormous amount of knowledge available out there so as to solve our problems, Ugandan universities have to take another long and hard look at what curriculum they offer to their students.

Social changes

The various advances in science and technology have significantly changed human society. Civilisation has evolved over the years and influenced human society in fundamental ways. Globalisation has brought human societies in contact. The total result of all these changes has been:

- cultural changes, conflict, and mutation;
- shifting core values;
- Rapidly changing social demands and needs.
- New problems have emerged, for example
 - drug abuse;
 - demoting influence of families on children;
 - rapid spread of diseases, for example, HIV/AIDS; and
 - Terrorism.
- New opportunities, for example,
 - quick movement of goods and services;
 - new products that have potential to improve human life, for example, genetic engineering can help reduce food shortage.

A poor society

Our society is still a poor society. Most of our people still live on less than one dollar per day yet, the cost of education is high.

- Funding of education is not receiving as much as other priorities of our society.
- High levels of unemployment of higher education graduates – even medical doctors!
- Low returns on investments in education.
- Questions of social relevance of education in an increasingly complex, confused and confusing world.

Universities have to make curricular reforms if they are to meet the needs of the societies they claim to serve.

Conclusion

The world is going through many changes. For us to cope with the challenges of living in a scientifically and technologically driven world, we have to keep on adjusting our curriculum. The science base of counting is extremely weak. We have to strengthen and broaden our S & T as well as R & D bases.

The function of knowledge is to prevent dogma from accumulating. (Jerome Kagan).

The Mediocre Teacher tells.

The Good Teacher explains

The Superior Teacher demonstrates

The Great Teacher inspires

We need a curriculum, teaching methods and facilities that will inspire our students. The future of our country depends on what we do with the students.

When knowledge is extended, the will becomes sincere.

When the will is sincere, the mind is correct.

When the mind is correct, the self is cultivated.

When the self is cultivated, the clan is harmonized.

When the clan is harmonized, the country is well governed.

When the country is well governed, there will be peace throughout the land" (Confucius: The Great Learning).