MANAGING THE PROCESS OF CURRICULUM CHANGE IN THE NATIONAL UNIVERSITY OF RWANDA: A CASE STUDY

Submitted in Partial Fulfillment of the Requirements for the Degree of Master of Education (Curriculum Studies) in the School of Education, University of Natal, Durban

By

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June, 2001
Izihirwe Munyarwanda
May you experience the forces of change
ABSTRACT

Nowadays, change becomes more and more a continuous basis of the educational systems for their improvement. People increasingly need to tackle and cope with their organisational environments which are complex and dynamic. However, the problem is to know how to move from the status quo to the situation wherein all stakeholders should work both individually and collaboratively as inquirers and learners to investigate and solve problems.

My case study is located at the heart of this context. Its purpose was to investigate why and how the process of curriculum change was managed in the National University of Rwanda from 1995. In addition, it aimed to identify how the University community should come together to handle curriculum change as an ongoing feature of improvement, and as a learning organisation. This research was carried out through a triangulation of participant observation, documentary analysis and semi-structured interviews.

Throughout my case study, I observed that orientations and needs for changing the curricula in the National University of Rwanda essentially stemmed from the situation inherited from the war, genocide and massacres undergone by the country in 1994. Furthermore, initiating curriculum change came from the top management, while the basic organ to deal with development and its implementation was the Department. I noted also that it is likely the National University of Rwanda focused more on changing curriculum frameworks than changing organisational habits, behaviours,
values, skills and beliefs. Although the shift to the new culture is at the centre of a
learning organisation, most of the time this aspect is left untouched in practice.

As lecturers in a professional organisation such as the National University of Rwanda
have the skills and control over their own work, I conclude that they are in a position
to play a vital role to manage curriculum change, learn from it, help students and
other stakeholders learn from and take part within it.
DECLARATION OF ORIGINALITY

I hereby declare that this dissertation, except the acknowledged referenced citations, is my own original work. It has not been submitted for any previous degree or examination at any university.

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ACKNOWLEDGEMENTS

My case study has become to the end because of the contribution of many people, too many to mention them all. But I would like in a special way to express my gratitude to my supervisor Mr Mike Graham-Jolly for opening up my mind to the forces of change. He willingly dedicated his precious time to listen to and to discuss with me. His humility, guidance, experience and competence pushed me to understand how all members of the National University of Rwanda can cope with curriculum change.

I want to thank the whole community from the School of Education at the University of Natal. I highly appreciated its sense of responsibility, its programmes of teaching, and its support. The National University of Rwanda also contributed financially and intellectually to the project throughout, even though some staff members kept asking ‘What’s Worth Fighting for’. I have been fortunate to have the family of Jean Marie and Marceline Muligande who helped me learn much more spiritually.

Balancing studies and love is a real problem. Studies are part of life. Love is the life itself. Thus, it was painful to leave my spouse Marie Chantal M Uwimana and my son Bruno M Izihirwe in Rwanda, and come down in South Africa for studies which will pass away. No statement fully expresses how I miss you dear. I love you, and nothing can cut us off from this love, even my degree I was struggling for, even country boundaries.
LIST OF FIGURES

Figure 1: NUR Framework before 1987 ............................................. 3
Figure 2: Reformed Programmes' Framework (1987) .................................. 4
Figure 3: Curriculum Change Process .................................................. 9
Figure 4: The Five Basic Parts of Organisations ........................................ 16
Figure 5: The Professional Organisation ................................................ 20
Figure 6: Curriculum Framework Initiated by the Rector Muligande .................. 36
Figure 7: Curriculum Framework Initiated by the Rector Rwamasirabo .......... 42
INTRODUCTION TO THE CASE STUDY

Research on curriculum change, development and evaluation has focused more and more on primary and secondary education, leaving aside issues of tertiary education (Bali, and Mutunga, 1992; Cloete, Muller, Makgoba, Ekong, 1997). One of the reasons for this preference may lie in the fact that the former makes up the central thrust of instruction, while sponsors sometimes consider the latter as not essential. However, higher education requires special attention and interdisciplinary efforts for its improvement. It needs to be adapted to the situation of the time.

In this connection, different reforms have been undertaken in the National University of Rwanda (NUR). Curricula have been the first target of change agents. The purpose of this introduction is to describe the context within which curriculum change has been managed. It develops also the case study in terms of its boundaries of the institution, the time and key issues addressed by the research.

Background to the Case Study

In order to understand how the curriculum has been changed and managed in any institution, it is necessary to grasp the context in which the transformation took place. This involves at least a reflection on internal and external factors that make the institution work. Created in 1963 by the Government of the Republic of Rwanda and a Canadian religious congregation of Dominicans from the Province of Quebec, the
National University of Rwanda has been subjected to several changes and transformations.

From the beginning, the motto of NUR is “Illuminatio et Salus Populi” (the Light and People Welfare), and the aims of NUR converge to provide teaching at a higher education level, to organise and support scientific research, to provide services to the community, and to promote the culture of the Rwandan people. By the 1960s and 1970s, NUR focussed on producing human resources able to enhance economic growth, public administration, and to safeguard the Rwandan cultural patrimony (Hanf et al. 1986, p. 4). At the time of its inauguration, three academic units formed NUR: the Faculty of Medicine, the Faculty of Social Sciences, and the Higher School of Education (Ecole Normale Supérieure). The latter has been split in two faculties in 1964, namely the Faculty of Arts and the Faculty of Science. Other faculties have been progressively created, with external assistance. A five-year emergency plan of the national development (Plan Intérimaire d’Urgence: 1966-1970) stated that NUR was limited to an undergraduate programme of three years. But this duration gradually changed as it is depicted in the Figure 1.

By 1970-71 were created the Faculty of Science of Education, the Practical School of Modern Languages, and the Nursing School. The two latter shut down respectively in 1973 and 1977. Assisted by the Faculty of Applied Science of GAND (Belgium), NUR opened a similar Faculty in 1973. One year later, the Faculty of Law was set up, while the Faculty of Agronomy was created in 1979.
In order to train secondary school teachers of whom the country was highly in need, the National Institute of Education was created in 1966. Another objective appointed to this institution was to promote educational research for controlling the output permanently with modern educational methods such as the audio-visual. But later in 1981, the National Institution of Education merged with NUR to become the National University of Rwanda (Presidential Decree No 650/14 of 19 December 1985). From then on, NUR was split in two campuses: the Campus of Butare dedicated to promote science studies, research and, accordingly, to train scientific and professional development of human resource. The Campus of Ruhengeri had as objectives to train secondary school teachers. It was also interested in continuous education, and fundamental and applied research. Before the general reform of 1987, the curriculum framework of NUR can be summarised as illustrated in the Figure 1.

**Figure 1: NUR Framework before 1987**

![Figure 1: NUR Framework before 1987](image)

In spite of many efforts devoted to building the educational system in Rwanda, the report on the second five-year plan of economic, social and cultural development (1977-1981) pointed out that it had failed to address the social and economic problems of the country (p. 40). From then on, the national leaders decided to rethink the tertiary educational policies in terms of employments (existing or to be created), and this, according to the sectors of priority. This “professionalisation” of higher education became effective only by 1987, and it was a result of the general reform of
education initiated from 1979. During this reform, two units have been set up in NUR: the Public Administration Institute (1988), and the Higher Institute of Education (1993). Unfortunately, the country entered into a war from 1990 to 1994, and NUR was forced to suspend its activities during the academic year 1990-91 and 1993-94.

It is likely that the external assistance prevailed upon the development of NUR (Hanf et al. 1986). However this assistance had some inconveniences to the academic autonomy: donors tended to organise the institution according to their norms, they imposed their curricula, and kept the budget under their control. At the same time, NUR was challenged to get as quickly as possible the local teaching staff in order to replace external human resources. It had also to achieve effectiveness of itself, an issue which needs to be addressed even at the time of writing. The framework of the reformed programmes is presented in the Figure 2.

**Figure 2: Reformed Programmes’ Framework (1987)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Level</th>
<th>Programme</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 years</td>
<td>Secondary School</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Baccalauréat &amp; Ingéniorat A1</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Baccalauréat</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Licence</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Licence/Ingéniorat Ao</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Doctorat (Médecine)</td>
<td></td>
</tr>
<tr>
<td>1er Cycle</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>2ème Cycle</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

In the mid-1990s, the terms “humanism”, and “competency” became in fashion. Humanism: the country had experienced the war, massacres, and genocide of 1994. It was, therefore, imperative that the University community and the whole country made steady progress in restoring peace, reconciliation, and rehabilitating administrative, judicial, and social institutions. Competency was advocated because, first, an ethnic and regional quota system for entry into schools and University had existed over a
long time, and made access to education limited for significant sections of the population.

Secondly, the Rwandan Tragedy affected seriously the country’s educational system with regards to its material, financial and human resources. After the reopening of the learning and teaching activities which had been paralysed by the Tragedy, the whole educational system has been oriented towards a twofold aim: 1) the training of human resources for a greater responsiveness to social, cultural and economic needs, and 2) promoting a culture of peace and fairness in Rwandan society. The following dates might be mentioned, in that the period between 1995 and 2000 constitutes the focus of this study:

- 1995: the Campus of Butare and the Campus of Ruhengeri merged into one campus situated in Butare. At the same time, NUR resumed its activities.
- 1996: the School of Science and Techniques of Information was established.
- 1997: as the teaching and learning activities should be conducted in both French and English, it was decided that on arrival at NUR, new students were requested to devote the first year to learn English or French. The Practical School of Modern Languages assumed this task.
- 1998: a postgraduate level of specialisation was created in the Faculty of Medicine. In addition, the Faculty of Science and that of Applied Science merged into one unit called the Faculty of Science and Technology.
- 1999: the Higher School of Education and the Faculty of Science of Education merged and formed the Faculty of Education, while the Faculty of Arts
became the Faculty of Arts and Human Sciences. Many other departments were created or revised, and others were dropped out the framework.

- 2000: the School of Science and Information Technology became the School of Journalism and Communication.

In addition, the curriculum transformation in NUR is embodied in the Government’s holistic vision for its future sustainable development. This vision can be summarised in the following key elements:

- Good governance, democratization, national reconciliation, national political stability, and security. Grassroots participation in development and decision-making, an all-inclusive economic system that allows effective participation of all social and economic groups in the population and creates an economy of stakeholders.
- Macroeconomic stability and economic reforms; creation of an enabling environment for private sector development; and reduction of the role of the public sector in economic activity while increasing the efficiency of government.
- Reduction in poverty, in particular, through increasing agricultural productivity, generating higher rural skills and incomes, and off-farm employment.
- Human resource development – through improving access and quality at all levels of education, capacity building, nonformal education, enhancing the role of women, improving health standards, and preventing the spread of AIDS – has become a major national preoccupation.
- Progressive reduction of Rwanda’s dependence on external resources and promotion of exports.
- Promotion of regional economic integration and reduction in the costs of access to the ocean ports.


The educational system in general operates in an environment susceptible to fluctuations, change and instability (Bonami, 1993, p. 22). All events and their after-effects inherited in years gone by altered and continue to affect the whole education system, especially in regard to curriculum and human resource management in
schools and the University. It would be then very difficult to understand the issue of curriculum change in NUR without discussing the socio-political and economic context of the country. Therefore, it is within this context that my case study can be understood.

Focus of the Case Study

By 1997, the National University of Rwanda initiated a holistic programme of curriculum change in all its academic units. The first question is “why?” and the second is “how?” The “why” refers to the relative strengths and weaknesses of NUR. The “how” is located in the process of transformation which depends largely on the organisational configuration of the institution. In other words, it is to know how the curriculum has been designed and developed in NUR. To address these issues, it is necessary to analyse the basic mechanisms of interaction and coherence by which the process of curriculum change took place in this institution and in its Faculties and Schools. In this connection, the contribution of my research is to investigate the operational dimension of the process of curriculum change at NUR from 1995 to 2000. Moreover, reference will be made to other reform attempts from the inauguration of NUR in 1963.

In studying in depth the situation of curriculum change in NUR, this research has taken the form of a qualitative case study. The latter was indeed the most appropriate design for investigating the process of transformation within which NUR was considered as “a bounded system”. A case study is defined by Merriam (1988) as:
An examination of a specific phenomenon such as a program, an event, a person, a process, an institution, or a social group. The bounded system, or case, might be selected because it is an instance of some concern, issue, or hypothesis (pp. 9-10).

The context of NUR has been selected as a case study because of its intrinsic interest. Due to the difficulties arising from the Rwandan Tragedy of 1994, different changes have continuously been undertaken in NUR, with some people being ignorant of “how” and “why”. Thus, this research studied the process of curriculum change in this institution, and attempted a full understanding of significant factors characteristic of the phenomenon.

This case study has been more a combination of description and critical reflection because, first, it was interested in process, meaning, and understanding; secondly, it has involved explanation, and judgement of the situation. It is necessary to mention here that “the case study strategy may be used to explore those situations in which the intervention being evaluated has no clear, single set of outcomes” (Yin, 1984, p. 25 cited in Merriam, 1988, p. 29). That is why, in this research paradigm:

There are no predetermined hypotheses, no treatments, and no restrictions on the end product. What one does do is observe, intuit, sense what is occurring in a natural setting – hence the term naturalistic inquiry (Idem, p. 17).

**Design of the Case Study**

In designing and developing a curriculum, different sequences of activities are basically involved. Most authors have suggested four principal phases depicted in the Figure 3:
Orientation/Needs phase: for changing the curriculum, it is of critical importance to examine and to take into account dissatisfactions, concern, expectations, and needs felt by stakeholders from inside and outside the organisation. It is up to stakeholders (assisted by specialists) to interpret the initial states of the curriculum in terms of educational orientations, which are generally determined by the government. That is what Marsh pointed out in these terms:

There is no doubt that politicians are taking a leading role in determining directions for innovations... Caldwell... suggests that governments are adopting a more powerful and focused role in terms of setting goals, establishing priorities and building frameworks for accountability (1997, p. 186).

Figure 3: Curriculum change process

Initiation/Adoption phase: who initiates curriculum change? For Fullan (1993), “every person is a change agent” (p. 22). However, some people may or may not be able to exercise influence over others in development and decision-making in the adoption or the process of curriculum transformation. What matters again here is the commitment or the mobilisation of stakeholders to bring about change. Fullan (1982,
p. 42) has proposed some factors affecting adoption: existence and quality of innovations, access to information, advocacy from central administrators, teacher pressure/support, consultants and change agents, community pressure, availability of funds, new legislation or policy, problem solving incentives of adoption, etc.

**Implementation phase:** named also the initial use, this phase refers to a process of attempting to put the changed curriculum into practice (Fullan, 1991). However, this definition is characterised by Marsh as “simple” for it does not point out the complexity and problems related to this phase. Fullan (1991) maintains that the factors affecting the effectiveness of implementation can be, for example, the need and relevance of the change, its clarity and complexity, the quality and practicability of curriculum, the adoption process, the information system, the strategies available, the peer and authority relationships.

The change may be externally imposed or voluntarily sought; explicitly defined in detail in advance or developed and adopted incrementally through use; designed to be used uniformly or deliberately planned so that users can make modifications according to their perceptions of the needs of the situation. (Fullan, 1982, p. 52).

**Institutionalisation phase:** institutionalisation is the extension of the implementation; it happens when the change is sustained generally after a period of the first or the second year. This phase called also continuation, or incorporation, “refers to whether the change gets built in as ongoing part of the system or disappears by way of a decision to discard or through attrition” (Fullan, 1982, p. 39). This is, before proceeding to judge objectively the outcomes of a change, the latter should have a chance to be implemented, and the institutionalisation phase should be reached.
Otherwise, the evaluation might generate misleading information where outcomes are assessed in a relatively short run (Fullan, 1991; Marsh, 1997).

As indicated by the two-way arrows in the Figure 3, "change is a process, not an event" (Fullan 1982, p. 41, author's italics). It is not a linear process, in that there can be forward and backward alteration of decision taken at the previous phases, or to be taken at the following stages. The diffusion and the dissemination of activities facilitate interactions between phases.

**Conduct of the Case Study**

Since my research was based on a case study, which was qualitative by nature, data gathering and analysis methods characteristic of qualitative research were chosen accordingly.

**Participant observation:** as I was a member of the institution being studied, I played the role of a participant researcher. Gans (1982) cited in Merriam (1988, p. 93) considers this observer as one "who participates in a social situation but is personally only partially involved, so that [she or] he can function as a researcher." To analyse the process of curriculum change in NUR, I was a participant as an insider while describing it as a researcher for outsiders. Therefore, through my observation, I gathered data on: the *physical setting* (e.g. the physical environment of NUR and its organisation be it at the administrative and academic level); the *human setting* (e.g. the organisation of people, and their role in designing and developing the curricula); the *interactive setting* (my observation included both oral and visual data. Thus, I
observed interactions that were taking place, formal, planned, unplanned, verbal, nonverbal etc); the *programme setting* (pedagogic styles, curricula and their organisation) (Cohen, Manion, and Marrison, 2001, p. 305). The purpose of this participant observation was to understand in depth the coherence and interactive mechanisms of the process of curriculum change related to the four basic phases.

**Documentary analysis:** this method has been chosen because the documents provide descriptive information in a historical perspective about reform attempts and developments in NUR. Of course, there has been the mobility of people in years gone by, but a range of written and physical material has remained there, even if some of them have been spoiled, or damaged by the Rwandan Tragedy of 1994. These documents resided in archives, scientific reports, official speeches, programme documents, mass media, government documents, websites etc. The documents that have attracted my attention were those that related to the process of curriculum change. Since some materials were not produced for the research purpose, I proceeded prior by assessing them before their utilisation. I tried to find out the process by which research methods and data analysis were originally used by the author. Then I determined the consequent impact these data would have on my case study. Thus I decided to consider or to reject the material. Moreover, I expected to use documents as a primary source of my case study, but my research was undermined by a lack of reference on the new curricula in NUR. In order to overcome this problem, I increased the time of conducting my observation, and the number of persons to be interviewed passed from six to ten.
Semi-structured interviews: interviews were utilised in conjunction with the two research tools in order to get some issues cleared in depth, "or to go deeper into the motivations of respondents and their reasons for responding as they do" (Cohen et al, 2001, p. 268). Therefore, ten key interviewees were chosen according to their expertise, their experience, and their leadership position in NUR. As these interviews were semi-structured, three respondents from the top management were invited in my classroom to present to my students who acted as research assistants how NUR has managed the curriculum change from 1995. Afterwards, they were invited to answer some questions related to the process being explored. "This format allows the researcher to respond to the situation at hand, to the emerging worldview of the respondent, and to new ideas on the topic" (Merriam 1988, p. 74). The interviews and observation were recorded by taking notes during the session.

Content analysis: I chose this method in order to analyse qualitative data gathered by observation, documents and interviews. Merriam (1988, p. 116) argues: "essentially content analysis is a systematic procedure for describing the content of communications". In other words, I organised and simplified complex data in the meaningful categories - made by key issues to be addressed – so that I might understand their meaning and I might verify their theoretical relationships. "The aim is to be systematic and analytic, but not rigid. Although categories [...] initially guide the study, others are allowed and expected to emerge throughout the study" (Altheide, 1987, cited in Merriam 1988, p. 117).

A major problem encountered throughout the development of my case study was all about that I was far from the research field. I conducted my case study in Rwanda while I developed it being in South Africa. For this reason, I could not easily get
access to some additional information as quickly as I wanted to. I tried to communicate with my interviewees by sending e-mails to Rwanda, but this took a long time to reply back, sometimes with incomplete information. Thus, I was forced to use the international telephone which was unfortunately extremely expensive.

The introduction of this research report has provided an overview of the context of the case study, i.e. different transformations undertaken in NUR considered as “a bounded system” or an “instance in action”. Indeed, NUR could not design and develop its detailed strategies of sustained educational improvement without examining the ultimate causes of its inadequacy. If the existing model basically did not change, discrepancies would remain in spite of the reform efforts. The following chapter provides a conceptual/theoretical framework within which the curriculum change was analysed.
Chapter 1

CONCEPTUAL/THEORETICAL FRAMEWORK

Introduction

The following discussion is based on the concept of ‘a professional organisation’ and that of ‘a learning organisation.’ First, in order to examine the process of curriculum change in the National University of Rwanda (NUR), it is necessary to take into account its organisational configuration. NUR is a professional organisation wherein the basic work of the academic training is disseminated to the lecturers as Mintzberg (1979) points out:

This gives rise to a structural configuration sometimes called ‘Professional Bureaucracy’, common in universities, general hospitals, school systems, public accounting firms, social work agencies, and craft production firms. All rely on the skills and knowledge of their operating professionals to function; all produce standard products or services (Mintzberg 1979, pp. 348-349).

Secondly, my case study refers to the concept of a learning organisation according to which change may be managed collectively through a process of learning, reflection, and innovation. It may be defined as a pragmatic process of action research, which embodies evolutionary perspectives, and which states that the final product may not necessarily look like it was initially planned, because the environment inside and outside the organisation is turbulent, dynamic and complex.
NUR as a Professional Organisation

Before proceeding with a more detailed description of NUR as a professional organisation, it will be useful to introduce at this point the five basic parts of organisations (Mintzberg 1979, pp. 18-34) as depicted in the Figure 4.

**Figure 4: The Five Basic Parts of Organisations**

![Diagram of the five basic parts of organisations](source: Mintzberg (1979, p. 20))

At the base of the logo is the operating core, within which the operators perform the basic work of the organisation. For example, in a university such as NUR, this part encompasses lecturers, researchers and students. At the very top of the hierarchy, managers together with their own personnel staff form the strategic apex. Their duties lie in ensuring that the organisation achieves its mission in an effective way, and also that they deal with the needs of the environment inside and outside the organisation. Other administrative managers who link and coordinate information from the strategic
apex to the operating core make up *the middle management*. To their left stands also 
*the technostructure*, wherein the analysts use their own techniques to make the work 
of others more effective: they may design it, plan it, change it, or train the people who 
do it, but they do not do it themselves. Finally, *the support staff* is made up by a great 
number of units, all specialised to provide support to the functioning of the operating 
core indirectly. For example, universities have printing facilities, student restaurants, 
financial department, building and grounds departments, publishing houses, archives, 
bookshops, information offices, museums, sport departments, libraries, computer 
facilities, cafeteria, etc.

The professional organisation is designed to perform the task of experts or specialists, 
among them lecturers and researchers. Generally in the university, lecturers and 
researchers work independently of their colleagues, but closely with their clients. 
Therefore, training and indoctrination play a prominent role in the professional 
organisation. In other words, to become 'professional' takes place over a long period 
starting during the formal teaching. Mintzberg (1979) asserted:

Training and indoctrination is a complicated affair in the Professional 
Bureaucracy. The initial training typically takes place over a period of 
years in a university or special institution. Here the skills and knowledge 
of the profession are formally programmed into the would-be 
professional. But in many cases that is only the first step, even if the most 
important one. There typically follows a long period of on-the-job 
training, such as internship in medicine and articling in accounting. Here 
the formal knowledge is applied and the practice of the skills perfected, 
under the close supervision of members of the profession. On-the-job 
training also completes the process of indoctrination, which began during 
the formal teaching (p. 350).

All of this training is geared to one goal – the internalisation of standards 
that serve the client and coordinate the professional work. In other words, 
the structure of these organizations is essentially bureaucratic, its
coordination...achieved by design, by standards that predetermine what is
to be done (p. 351).

Through this quotation, it is clear that the authority of the professional organisation
stems from the power of expertise. An emphasis is also put on the standardisation of
skills to achieve coordination of the tasks of lecturers and researchers in the faculties
and departments. This is to say that the managers of curriculum transformation in
such organisations are professionals because they have skills required to bring about
change. On the other hand, they have the autonomy to cope with their work through
decentralisation of the organisation (Robbins 1990, p. 289), and that without
interference of managerial orders from the strategic apex and middle line. Mintzberg
supports this argument in these terms:

Both direct supervision and mutual adjustment impede the professional’s
close relationships with his clients. That relationship is predicted on a
high degree of professional autonomy – freedom for having not only to
respond to managerial orders but also to consult extensively with peers
(1979, p. 352).

In professional organisations, clients express different needs in terms of services to be
offered, and of the functional specialists who serve them. Thus they are categorised or
categorise themselves in standard programmes required.

The problem of dealing with variability in student abilities and
accomplishments during a school year ... is vested in the classroom
teacher, and one important component of his professional skill is ability to
handle day-to-day fluctuations in the response to instruction by individual
students and collectively by the classroom group (Bidwell cited in
Mintzberg, 1979, p. 353).

This phenomenon can help understand why departments in University are basically
the key part in the process of curriculum design and development. Moreover, it shows
why students are categorised in terms of the functional specialisation they deal with in NUR. All of this gives to lecturers considerable control over their own work which is highly specialised in the horizontal dimension from faculty to faculty, and from one department to another. Two illustrations provided by Mintzberg (1979) help to explain the point:

A hospital gynecology department and a university chemistry department can be called functional because they group specialists according to the knowledge, skills, and work processes they use, or market-based because each unity deals with its own unique types of clients – women in the first one, chemistry students in the second. Thus, the distinction between functional and market bases for grouping breaks down in special case of the Professional Bureaucracy (Ibid.).

The technostructure and middle line of management are not highly elaborated in the professional organisation. For example, in NUR, the only unit identified as technocratic is the department concerned with developing and promoting lecturers’ skills in pedagogy and teaching matters, namely in French Cellule de Coordination d’Enseignement et de Pédagogie Universitaire, hence the acronym CEPU. Thus, Figure 5 shows the professional organisation wherein the operating core and the support staff are fully developed, and with a tiny technostructure, and a thin middle line.

Indeed, the high democratic structure, at least for the professionals of the operating core, characterises the professional organisation. However, professionals need administrative work of the middle line to insure collective control of decisions that affect them as decisions related to hire lecturers, their promotion, resource distribution etc. The professionals themselves perform some of the administrative work, but there
must be full-time administrators who are also members of the profession (Mintzberg 1979, p. 358).

**Figure 5. The Professional Organisation**

For example, in NUR, the Dean, Vice-Dean, and Academic Secretary are elected among lecturers belonging to the faculty and they work alongside a parallel hierarchy. At the higher level of the University, the professional administrators (Rector and two Vice-Rectors) "serve key roles at the boundary of the organization, between the professionals inside and interested parties - governments, clients associations, and so on - on the outside" (Idem p. 362, bold in the original).

Concluding this section, I can say that the professional organisation works in a democratic climate. The power is directly disseminated to the professionals. Therefore, a curriculum change in NUR is basically in the hands of lecturers in their respective departments. Their autonomy allows them to perfect their skills, free of interference, and it becomes sensible for each one to think in terms of a personal strategy. "As a result, the reluctance of the professionals to work cooperatively with each other translates itself into problems of innovation" (Idem p. 375). This study will
address this issue by considering NUR as “a learning organisation”, where people work together to bring about change.

**NUR as a Learning Organisation**

The central thrust of this chapter is to compare NUR to the concept of ‘a learning organisation.’ How can NUR create an environment for effective teaching and learning? How can this organisation promote an approach which is likely to be an ongoing feature of curriculum development? Such reflections should not be separated from the transformation of the educational system as a whole in an integrative and collaborative manner. This idea is embodied in the title given to the report of the Task Team on Education Management Development in South Africa published in 1996 and entitled *Changing Management to Manage Change in Education*. The report explains:

> The approach to educational management which we propose is an integrative and collaborative one: collaborative in that it involves all staff and stakeholders, and integrative in so far as it informs all management processes and outcomes in an organisational setting. Decisions related to concerns such as student learning, resource management, and staff management and development, derive from premises founded on common, agreed principles. In this approach, management is shifted from being an expedient response towards being a value-driven approach, founded upon consent and consensus. It links goal-setting, policy making, planning, budgeting and evaluating at all levels of the school (Department of Education 1996, p. 30)

This approach does not merely mean the inversion of the hierarchical pyramid, but rather it relies on a value-driven mission, participation and collaboration of all parts concerned, the school is reckoned as a learning organisation and it takes into account other levels of support.
Learning organisations treat change as an ongoing feature of their existence. They make change part of their organisational ethos and support individual and collective learning as part of their mission. Managers need a wide variety of competencies to carry out their responsibilities and the learning organisation provides the organisational context in which these competencies can be developed.

The learning organisation develops the capacity to learn and reflect, and the capacity to innovate. It uses these competencies to mobilise and use resources efficiently and to achieve the larger task of managing the changing environment inside and outside the school so as to improve the quality of teaching and learning. Management development thus combines education, training and support in the context of organisational development, staff development and curriculum development with the aim of improving the quality of learning and teaching (Department of Education 1996, p. 31).

Coming to the heart of the matter, the starting point is to consider that the learning organisation evolves in a dynamic environment. Fullan (1993) asserts that "the learning organisation must be plugged into its environment if it is to have any chance at all of surviving" (p. 42). The environments are multiple (social, cultural, political, economic environments), and constitute the constraints and conditions under which organisations operate:

Every organization – regardless of the industry it’s in or whether it’s profit seeking or not for profit – faces some degree of environmental uncertainty. Why? Because no organization is completely able to generate internally all the resources it needs to sustain itself. Every organization, for example, requires financial and human resources as inputs and clients or customers to absorb its outputs (Robbins 1990, p. 360).

Indeed, managing school organisation arises from the interaction of internal and external actors. It is then necessary to identify all stakeholders who affect the organisation. For example, in NUR, they are students, lecturers, researchers, officials and professional administrators, sponsors, social agencies, business organisations,
government, etc. The Task Team on Education Management Development in South Africa underpinned this argument as follows:

Management should not be seen as being the task of few; it should be seen as an activity in which all members of educational organisations engage. Management is about doing things and working with people to make this happen. As such it is a process to which all contribute and in which everyone in organisation ought to be involved (Department of Education 1996, p. 8).

The main raw material of each and every educational organisation is the learners. They enter the institution as inputs, with of course their values, norms and attitudes. The learning/teaching process they experience equips them with materials necessary to ensure, in return as outputs, their own needs and those of the society. Teachers play a very prominent role in this process. Fullan (1993) has summarised this process in a pragmatic perspective in these terms:

You cannot have students as continuous learners and effective collaborators, without teachers having these same characteristics (Sarason, 1990). This is not a matter of teachers having more enjoyable jobs. It is simply to not possible to realize the moral purpose of teaching – making a difference in the lives of students – without similar developments in teachers. Moreover, many of the new goals of education for students – having a sense of purpose, habits change – are precisely the skills of change agentry. In post-modern society the latter is both a means and an end of education as long as it is coupled with moral purpose. The teachers must succeed if students are to succeed, and students must succeed if society is to succeed (p. 46).

The same author advocates that collaboration among students on the one hand, and among teachers on the other, is a fundamental tenet of all proposals to develop schools as learning organisation. Similarly, in NUR, curriculum change can be performed in the sense to allow students, lecturers and other stakeholders to develop a spirit of community and the habits and skills of collaboration. The global society and,
therefore, the problem of reform is complex and dynamic. For this reason, it will be
difficult to bring about curriculum transformation by viewing "organisation change as
essentially a process of moving from one fixed state to another through a series of
predictable and pre-planned steps" (Burnes 1996, p. 170). Stacey (1992) quoted in
Fullan (1993) has commented:

The long-term future of such organizations is completely unknowable
because the links between specific actions and specific outcomes become
lost in the detail of what happens. We can claim to have achieved
something internationally only when we can show that there was a
connection between the specific action we took and the specific state we
achieved; in other words, that what we achieved was not materially
affected by chance. Since it is impossible to satisfy this condition when
we operate in a chaotic system, it follows that successful human
organizations cannot be the realization of some shared intention formed
well ahead of action. Instead, success has to be the discovery of patterns
that emerge through actions we take in response to the changing agendas
of issues we identify (p. 20).

Since the educational system is open to its environments, and since these
environments both inside and outside the organisation are dynamic, complex, and
turbulent, "no specific plan can last for long, because it will either become outmoded
due to the changing external pressures, or because disagreement over priorities arises
within the organisation" (Fullan, 1991 p. 109). Mintzberg (1994) points out that "there
are no dependent variables and independent variables in the system; all are influenced
by all, and influence all" (p. 400, my translation). Land and Jarman (1992) support
this argument by saying that "everything exists as sets of connections with the world
around it" (p. 103). They underline that the notion that things are separate is wrong:

Everything and everybody is connected. Everything affects everything
else. No matter how different, no matter how far away, we are all part of
an interconnected whole... the fact is that no real division can be found
between ourselves, other people, and the world around us – *unless we create it in our minds* (p. 104).

Fullan (1999) stresses also that the notion of linear causality is factually wrong because the world of educational change is built on the essence of dynamic complexity, and systems thinking. However, he points out that “Although the change process is unpredictable in blueprint terms, there are key insights and ideas that enable us to understand complex processes better, and correspondingly to develop the mindset and instincts to take more effective action” (Idem., p. 13). That is to say stakeholders must know why they embark on a process of change, and how they can make the difference in the new culture. These strategies will also comprise the broader definition of curriculum, embodying what Fullan (1996b) called reculturing/restructuring in terms of the systemic reform:

Reculturing refers to the process of developing new values, beliefs, and norms. For systemic reform it involves building new conceptions about instruction (e.g., teaching for understanding and using new forms of assessment) and new forms of professionalism for teachers (e.g., building commitment to continuous learning and to problem solving through collaboration). Restructuring concerns changes in the roles, structures, and other mechanisms that enable new cultures to thrive (p. 422).

This raises the interesting hypothesis that reculturing leads to restructuring more effectively than the reverse. In most restructuring reforms new structures are expected to result in new behaviours and cultures, but mostly fail to do so. There is no doubt a reciprocal relationship between structural and cultural change, but it is much more powerful when teachers and administrators begin working in new ways only to discover that school structures are ill-fitted to the new orientations and must be altered. This is a more productive sequence than the reverse when rapidly implemented new structures create confusion, ambiguity, and conflict ultimately leading to retrenchment (Fullan, 1993, p. 68).
Fullan (1996a, pp. 20-21) formulated ten key characteristics which could help cope with change in the Faculties of Education at the University of Toronto. My contention is that those characteristics might be applied in NUR. The Faculty would:

1. Commit itself to produce teachers who are agents of educational and social improvement.
2. Commit itself to continuous improvement through program innovation and evaluation.
3. Value and practise exemplary teaching.
4. Engage in constant inquiry.
5. Model and develop life-long learning among staff and students.
6. Model and develop collaboration among staff and students.
7. Be respected and engaged as a vital part of the university as a whole.
8. Form partnerships with schools and other agencies.
9. Be visible and valued internationally in a way that contributes locally and globally.
10. Work collaboratively to help develop provincial and national networks.

This is not to say that strategies need to be a priori elaborated, but it is necessary to thrive for 'a fundamental shift of minds', otherwise, people will resist change:

Senge (1990) reminds us that the Greek word metanoia means 'a fundamental shift of mind'. This is what we need about the concept of educational change itself. Without such a shift of mind the insurmountable basic problem is the juxtaposition of a continuous change theme with a continuous conservative system. On the one hand, we have the constant and ever expanding presence of educational innovation and reform. It is no exaggeration to say that dealing with change is endemic to post-modern society. On the other hand, however, we have an educational system which is fundamentally conservative. The way that teachers are trained, the way that schools are organized, the way that the educational hierarchy operates, and the way that education is treated by political decision-makers results in a system that is more likely to retrain the status quo than to change. When change is attempted under such circumstances it results in defensiveness, superficiality or at best short-lived pockets of success (Fullan, 1993, p. 3).

The resistance of change is a legitimate individual and organisational phenomenon. Marsh said that the transition from traditional teaching methods could often be very
painful for students and teachers (1997, p. 101). Fullan (1991) underlines that "Conflict and disagreements are not only inevitable but also fundamental to success change. Since any group of people possess multiple realities, and collective change attempt will necessarily involve conflict" (p. 106), and that "People need pressure to change (even in directions that they desire), but it will be effective only under conditions that allow them to react, to form their own position, to interact with other implementers, to obtain technical assistance, etc." (Ibid.).

In my opinion, the pressure is not often the best solution of resistance. I merely support that it is necessary to take into account resistance, listen to resistant people rather than to be unaware of them or to become oppressive towards them. It is important for managers and planners to hold and reinforce all winning cards of change, and to make it possible that resistance may be expressed and may exist by loosening and by finding its place in the change process. Therefore, I advocate a moderate, and a less rigorous version, which integrates both pressure and support as suggested by Fullan more recently, "for some time we have realized that combinations of pressure and support are required for improvement. This works best when systems of pressure and support are integrated, not segmented" (2000, p. 24).

Teachers and other stakeholders need to know what is expected from them as a result of curriculum change. Therefore, the failure in transmitting information on expectations should reduce the degree of adoption and continuation. As teachers become aware that their colleagues accept and sanction the change, they become more comfortable with it. Commitment to curriculum change should then lead to a greater acceptance and permanence. If teachers and other stakeholders participate in
the process of decision-making, they can be expected to become more committed to seeing that curriculum change is successful.

To conclude this section, it is necessary to underline that NUR, as a learning organisation, could bring about curriculum change more effectively through the means of collaboration involving all potential partners. Change should be considered as a paradox presenting a certain degree of complexity, where all variables inside and outside the organisation are in a constant and circular interaction.

Conclusion

In this chapter, the meaning of change has been developed within the context of a professional organisation and a learning organisation. As I have previously pointed out, the main part of NUR is its Faculties/Schools and Departments, where lecturers are possessed with autonomy and skills which give them considerable control over their own work. Because the vision of professional bureaucracy is basically translated into a personal strategy, this study addresses this issue by considering NUR as a learning organisation. In this context, the change is managed through a process of learning, reflection, and innovation. The quality of change is affected by the availability of resources efficiently used to improve the quality of learning and teaching.

The environment inside and outside NUR is complex and dynamic and for this reason it requires professionals to have a great deal of knowledge and skills to bring about change and to serve their clients. Therefore, a supportive management culture can
only thrive where all potential partners, unions, business organisations, government and other groups outside the organisation feel ownership of the organisation’s mission and ethos. The process of change requires also taking into account forces of change, and forces of conservation. This is not a question of simple restructuring, but a change in organisational culture, a shift in minds.
Chapter 2

DEVELOPMENT OF THE CASE STUDY

Several studies, which attempted to reflect about the management and performance of the National University of Rwanda (NUR), pointed out that it was urgent to equip this institution with curricula adapted to the context and needs of the country (Banyaga, 1987; Hanf et al, 1986; MINEDUC, 1998; NUR, 1997; UNR, 1986; UNR, 1988). These studies stimulated NUR managers to introduce new changes in curricula. That is why, in this chapter, I will attempt to portray what happened in NUR in the form of a case study and in terms of curriculum change. This chapter will also reflect the findings of the investigation carried out through a triangulation of participant observation, documentary analysis and semi-structured interviews.

When NUR resumed its activities in 1995, Professor Déo Kambanda was appointed the Rector. The efforts of this new leader intended first of all to rehabilitate, reconstruct and restore the stability of the institution. He concentrated all academic units on Butare Campus. He introduced a culture of “humanism”, and “competency” at the University. Therefore, a great number of conferences and debates on peace, reconciliation and human values excluding all kind of horror and atrocity took place. Furthermore, he installed the test for selecting the first year student candidates on the campus. However, changes he initiated “were especially felt at the level of administrative structures with a reduction in number of officials” (NUR, 1997, p. 11), and the latter are beyond the scope of my study. In addition, the curricula remained as reformed in 1987 though a few changes and amendments in the curricula subjects’
area were noticed. For example, the subjects ethics, philosophy, English and French were introduced in all Faculties and Schools.

The second Rector of NUR after the Rwandan Tragedy was Dr Charles Muligande who, from 1997, began holistic changes of curriculum in all academic units. At the opening ceremony of the academic year 1996-97, he announced his intention to organise a national conference in order “to reconstruct a university which meets more the Nation’s priority needs in training higher level manpower quantitatively and qualitatively, people who are both competent and capable of promoting and guiding the country’s development” (Ibid, p. i).

One year later, NUR inherited a new Rector in the name of Dr Emile Rwamasirabo. This leader carried on efforts of curriculum development in the University. In his speech at the graduation ceremony 2000, he stressed that “compared to other sub-saharan countries, Rwanda is in great need of university graduates. It is common knowledge that the development of a country requires a minimum of ‘critical mass’ without which the management of the State can face serious difficulties” (Rwamasirabo, 2000, p. 2). This shows how much he was concerned with the University improvement and performance. He commented: “Thus, constant efforts of the government are of paramount importance in order to meet those requirements” (Ibid.).

One can ask why there were so many changes of Rector in NUR over so short time. This may be interpreted as a situation of instability that NUR ran through after the
Rwandan Tragedy of 1994. It may also reflect how the academic autonomy is highly challenged in developing countries such as Rwanda.

In developing my case study, both reforms initiated by Dr Charles Miligande and Dr Emile Rwamasirabo attracted in a special way my attention. In this chapter, I will concomitantly describe and critically analyse them in order to pinpoint their convergences and divergences, their strengths and weaknesses. This will allow me to draw common conclusions about curriculum change in NUR, and will help prevent redundancies, which would result from studying the reforms separately.

Due to the deficit of qualified teachers in secondary schools after the Rwandan Tragedy of 1994, the Ministry of Education decided to set as a priority the training of secondary teachers, and to raise the proportion of students to the level of 32%. The second priority was tertiary education with a focus on teaching science and technology, and to increase student attendance to a level of 28% because the country expected to speed up its sustainable development, and to be a “respected and active partner” regionally and internationally. The sphere of health was also prioritised and should be increased to a level of 26%, whereas that of law and management had to be increased to a level of 14% (MINEDUC, 1998, pp. 96-97). It seems that the teaching of law and medicine are no longer a priority of the government. This means that the orientation of higher education is based on the prioritisation of the following streams:

- Stream for the training of secondary teachers.
- Stream for science and technology.
- Stream for management.
However, very recently in December 2000, the Rector Dr Emile Rwamasirabo noticed that “like in the previous years, the number of candidates in scientific subjects is still low [in NUR] because those who finish secondary schools, yet insufficient numbers, are oriented to different institutes of higher education” (Rwamasirabo, 2000, p. 3).

MINEDUC (1998) pointed out that this problem arose from deficiencies of resources for the teaching of science and technology in both secondary and tertiary education:

> Teachers of sciences who have been able to acquire solid training are scarce. Very few secondary schools have science laboratories, and it is everywhere regretted that science education remains theoretical. Even in the NUR, laboratories are still in a poor state, they lack material for demonstrations and experiments, there are no laboratory technicians, very few professors and the specialities represented are not sufficiently varied (MINEDUC, Ibid.).

In regard with training of secondary teachers, the Faculty of Science of Education and the Higher School of Education merged to become the Faculty of Education. Furthermore, the Department of Science and that of Arts and Human Science are conceived by a means to provide a double specialisation for the students. For example, Maths and Physics, Biology and Chemistry, French and English, French and Kinyarwanda. In regard to management studies, an agreement of cooperation between NUR and Makerere University (Uganda) “resulted in setting up a joint MBA Programme which will open its doors in Kigali” (Rwamasirabo, 2000, p. 6).

The question here is to know if other sectors that the country needs for its sustainable development have been sufficiently equipped with human resource. For example, a country which experienced the war, genocide and massacres as Rwanda inevitably requires human resource to deal with traumatism, disabilities, human rights, social
justice, security, politics etc. All these sectors are likely to be a necessity in Rwanda as well because the science without conscience only leads to the self-destruction.

Aside the orientations determined by the government, there are country’s needs which should be taken into account in order to bring about change in NUR. The Rector Miligande opted to proceed by what he named “a diagnosis and self-appraisal” of the University. His office distributed a questionnaire whose theme was “What Kind of University do We Want?” The questionnaire was to be filled in by the Dean of the Faculty/ School Director or his representative. Among other questions, there were, for example, to underline the personal choice and to justify his answer:

- Quality of academic programmes (excellent, very satisfactory, satisfactory, irrelevant);
- Quality of teaching in your academic programmes (excellent, very good, good, bad);
- Do you think your academic unit has a role to play in the development of a national culture (Yes; No; If yes why and how? If no why?).

Not only the sample was biased and not representative, but also the term “quality of academic programme” was not clearly defined in that the broad definition of curriculum relates to all opportunities for learning and teaching offered by the University. “It includes the formal programme of lessons in the timetable...and the climate of relationships, attitudes, styles of behaviour and the general quality of life established in the school community as a whole” (Department of Education and Science, 1980, cited in Graham-Jolly, p. 2). Therefore, the questionnaire did not provide the reference or standard of the desired “quality”. Of course, a set variety of responses would be offered if different stakeholders were asked to answer the same
questionnaire (e.g. students, lecturers, political officials, experts in curriculum evaluation).

The purpose of the diagnosis and self-appraisal of NUR was to prepare a working document to be utilised as a basis for a national debate on the theme *Which University do We Need in Rwanda?* which was jointly organised by the Ministry of Education and NUR from 23 to 26 July 1997 in Kigali (MINEDUC, 1997, p. i). The university community, political leaders, economic partners, religious, and media representatives, all of them were invited to rethink consensually the University orientation that would fit better with the country needs.

The participants decided to restructure the University: a bachelor’s degree should be obtained after 3 years of training, except the Faculty of Medicine where a “pre-clinic” of 2 years was maintained. The first year students from the Faculty of Economics, Social Science and Management, and that of Science should follow a common orientation programme. In the Faculty of Science, the first year students were subdivided in two Departments: *Group A* with students who should be oriented in the departments of Mathematics, Physics and Civil Engineering. *Group B* was to be oriented in the Departments of Biology, Chemistry, Pharmacy, and the Faculty of Agronomy. The second degree to be offered by NUR was the Master’s obtained after 2 years of training, except the Faculty of Medicine where a Doctoral Degree in general medicine should be offered after 4 years. NUR decided also to offer a doctoral degree/PhD, whose duration should depend on each specialisation’s requirements. At the time of writing, the latter is only operational in the Faculty of Medicine. The curriculum framework of NUR by 1997 is illustrated in Figure 6.
Some other restructuring was adopted such as to integrate the School of Public Health and Nutrition within the Faculty of Medicine (Department of Public Health), and within the Faculty of Agronomy (Department of Nutrition). The School of Science and Techniques of Information should be integrated in the Faculty of Arts and Human Science. The School of Higher Education should be closed, and the subject “psychopedagogy” should be offered in the Faculty of Science and that of Arts and Human Science.

Figure 6: Curriculum Framework Initiated by the Rector Muligande

It is clear that the Rector Muligande adopted a top-down approach for restructuring the curricula in NUR. Within the working document prepared by the “Vice-Chancellor’s office” about the national debate, different scenarios were suggested to the participants. Most of the ideas depicted there have been adopted. If NUR can allow other stakeholders to reflect about its orientation, it is necessary to mention that nothing can replace the effective participation of each and every lecturer. The power of managing change in any professional organisation, such as NUR, lies in the hands of its professionals. This is not a simple question of representatives such as in the administrative work where the dean, vice-dean and the academic secretary facilitate the process of decision-making, or the dissemination of information. Thus, one of the
pitfalls of the changes initiated by the Rector Dr Charles Miligande was to rely on the
lecturers' representatives. Moreover, as Riches (1994) points out:

*Downward communication* is crucial to the function of an organisation; it concerns messages and information sent from senior management to other staff. On organisational charts the flow normally follows the formal lines of authority downward from position to position... Management has the power to put messages in motion and start them on their downward journey – either to be received or not, or to arrive distorted, or late (p. 253).

As I pointed out, by June 1998, Dr Emile Rwamasirabo became the new Rector of NUR. A specialist in urology, Dr Emile Rwamasirabo came to NUR with a new and different experience gained from Makerere University (Uganda) where he had been a lecturer over six years. At the seminar (combined with the interview) he granted to my students, he said that when he was appointed to head NUR, he realised that the curriculum reform was ongoing. However, he noted that lectures were again very theoretical, and the time allocated to practical activities was very limited. On the other hand, the timetable did not help students interact with their colleagues and lecturers, and did not allow them the time to use the library and to work on their assignments. The system of tutorials was nonexistent. Students received passively notes from lecturers and hardly participated in designing and developing their knowledge and skills. The same problems had been also stressed by the reform initiated by the Rector Muligande: “The teaching at NUR is largely characterised by a tendency to Encyclopaedism. The teaching offered comprises of a lot of material which is sometimes more theoretical than practical and from which the student comes out with a completely filled head instead of a head well made” (NUR, 1997, p. 67).
The new methods experienced by the Rector Rwamasirabo from Makerere University were more dynamic, involving a large participation of students. The subject was introduced by means of short lectures. Afterwards, students, led by readings or laboratory experiences, were invited to prepare different topics individually or through discussion groups and tutorials. Finally, students, by means of the presentation/discussion sessions and the seminars, developed the lecture. The Rector Rwamasirabo underlined that "here students retain better what they learn than in the traditional approach of chalk and talk".

In addition to the problem of 'chalk and talk' faced by the learning/teaching system in NUR, all my 10 interviewees pointed out that many of the streams offered by NUR were very generic, and could not equip students with specified skills for a particular field of employment. Nowadays, the world of work has become increasingly exacting. Modern organisations need more and more people with skills, knowledge and people committed to responsibility and adaptability as Bush and Middlewood (1997) stress.

People are the most important in any organisation. They provide the knowledge, skill and energy which are essential ingredients of success. Even in a era increasingly dominated by the technology, what differentiates effective organisations are the quality and commitment of the people who work there (p. vii).

Aware of this reality, the Rector Rwamasirabo sought to link curricula with the world of work. Therefore, the change should highlight the necessity of curricula to focus on competences that would allow students to create their own employment. The curricula had also to be restructured by putting emphasis on vocational training that would lead students through a coherent, and inter-related set of lectures in order to achieve
defined competences in a particular market. The reform initiated by the Rector Muligande claimed also to have the same purpose: “We should revise our curricula and reformulate them in a such way that enhances the practical aspects as well as directing them towards the training of a student who is able to think deeply and solve problems rather than mere reproducing of lessons” (NUR, 1997, Ibid).

My concern was to know how the labour market needs were assessed by NUR. As the Rector Rwamasirabo said, NUR did not proceed by an academic audit or by the labour market surveys. He pointed out that only three units collaborated with external stakeholders to identify their needs and to bring about change in curricula. He mentioned the School of Science and Techniques of Information, the Faculty of Medicine and the Faculty of Agronomy. The example of the School of Science and Techniques of Information can help portray what happened in the three units:

At the level of the School, lecturers collected and analysed curricula applied in some African and international universities: the curricula from the University of Natal (accessed through internet), curricula from the Department of Journalism and Communication from Cameroon, those from the similar school from the ex-Zaire, and those from Mexico University. From all these curricula, the lecturers drafted a working document which was to be used in the seminar where external stakeholders were invited. The seminar took place in Kigali on 18 August 2000. The participants were the public and private press, all lecturers of the School, American and Dutch embassies, National Radio and Television, NGOs departments of press, and the sponsors (UNESCO, UNICEF). At the end of this one-day seminar, and after
analysing the strengths and weaknesses of the School, the participants suggested the following recommendations:

- Changing the name of the Unit to the School of Journalism and Communication.
- Providing competence for students in Kinyarwanda, French and English.
- Providing a course of study that would emphasise acquisition of necessary journalism skills.
- Focusing teaching on the responsibility and professionalism for journalists.
- Focusing on a broad-based curriculum that would educate students as well as train them.
- Promoting cooperation between the School and other institutions for partnership, continuing education etc.

These recommendations have been taken into consideration for designing the new curricula of the School which have been, from then on, termed the School of Journalism and Communication (SJC). The Senate adopted the new curricula thanks to some amendments.

Three main stages can be identified through the process of curriculum change in SJC. First, the School conducted an academic audit by means of the literature review, and the seminar where the potential partners participated to identify its needs. The second stage was to synthesise all recommendations from the seminar and design the School curricula. Finally, the School presented the new curricula to the Academic Senate which adopted them. The Faculty of Medicine and that of Agronomy adopted the similar approach. Notwithstanding, it seems that all other units, as I could observe it, simply limited their efforts to collect and synthesise other programmes from
international universities in order to restructure theirs. What happened in SJC needs to be improved especially in regard to associate other stakeholders (Ministry of Communication and Transport, Students etc), and other strategies for collecting data might be utilised (e.g. observation, interview, curriculum evaluation, questionnaire). It is necessary, for instance, to work collaboratively with secondary schools in order to remedy to the problem of discontinuity between secondary school and NUR curricula. The report on the diagnostic and self-appraisal of NUR suggested a simultaneous readjustment of those curricula (NUR, 1997, p. 24). Maybe, this approach, if it was improved, could inspire other units wishing to deal with curriculum change. Fullan with Stiegelbauer (1991) comment:

It is increasingly clear that changes require some impetus to get started. There is no evidence that widespread involvement at the initiation stage is either feasible or effective. It is more likely the case that small groups of people begin and, if successful, build momentum. Active initiation, starting small and thinking big, bias for action, and learning by doing are all aspects of desirable direction. Participation, initiative-taking, and empowerment are key factors from the beginning, but sometimes do not get activated until a change process has begun (p. 91).

International and regional trends in terms of higher education development stimulated also the Rector Rwamasirabo to initiate curriculum change in NUR. He mentioned, for instance the two main International Conferences organised in Dakar and another in Paris by 1998. The latter underpinned the necessity of higher institutions to enhance the curriculum quality, and the new methods of teaching and learning. Furthermore, the conference recommended increasing the admission of students, rethinking the financial system in tertiary education depending on the needs of each country. Taking into account the regional trends in NUR resulted in restructuring the curriculum framework in order to set up a single cycle of 4 years of training, and
which should lead to a “bachelor’s degree”. However, the Faculty of Agronomy and that of Medicine continued to last 5 and 6 years respectively. The curriculum framework of these changes is depicted in the Figure 7.

Figure 7: Curriculum Framework Initiated by the Rector Rwamasirabo

In order to meet the requirements of this curriculum restructuring, new departments were created while others harmonised their curriculum. In some academic units, the restructuring consisted to introduce new subjects or to drop out some others from the curriculum framework. Through my observation, I wanted also to know if lecturers felt ownership through the process of curriculum change. I realised that most of them used to say “they want us to do this or that” (for example, to increase the number of practical activities). “They” stands for the top management of NUR (the Academic Senate, Rector). Everyone in a learning organisation can be a change agent. However, in NUR, it seems that only the Rectors initiated the process of curriculum transformation. In the professional organisation, such as NUR, the lecturers –more than others – should be responsible of the ongoing feature of the curriculum improvement. Fullan (1993, p. 104) comments that the “systems don’t change when people wait for someone else to correct the problem.”
Another substantial challenge of curriculum management in NUR, which deserves to be underlined, is all about the relationship between structural and cultural change. In order to help the reader understand this point, I invite her/him to consider issues raised at the meeting held in the University Club on 15 January 2001 between the Rector together with the Academic Vice-Rector and the Deans of the Faculties, and the lecturers who had completed or who followed at that time their master's degree programme abroad. The main purpose of the meeting was to exchange views about what NUR could learn through experiences from international universities.

The first issue was about the use of the new and update reference especially through the websites. This problem is particularly crucial in that the library was not well equipped, and it was not unusual to find lecturers who did not update their notes and reference prepared some years ago whereas the science has developed continuously. Macq and Bragard (1999), in their expertise report on NUR, highlighted also the lack of notes or a simple recording of the notes studied in previous years (p. 14).

Another participant was concerned with how NUR could play a dynamic role to address the problems encountered by the country. This intervention moved out from what happened in other universities where some lecturers became consultants in their respective area of specialisation. The lecturer pointed out the need to reconstruct the commitment of learning by doing, and problem solving through the research and publications, and providing services to the community. The lack of these requirements could mean that the institution is not well connected to its environments and compromises the University motto: *Light and People Welfare.*
A critical point, which took also a long time in the discussion, was about participative methods of teaching/learning, where students should play a prominent role. Interveners stressed the importance of tutorials, assignments, seminars, lecture-discussions, and the place devoted to the practical activities. This intervention came to reinforce the experience of the Rector Dr Emile Rwamasirabo in Makerere University.

The last discussions turned around a problem raised in these terms: “Most of us don’t know enough about how to teach, we don’t know enough about how to stand in front of students. In other words we don’t have experience in teaching. We need to learn from our elders how to cope with academic matters.” This intervention pointed out how induction and mentoring are needed in NUR, and how to work collaboratively was essential. Indeed “the beginning years of teaching do not fair any better” (Fullan, 1993, 106). Induction programmes are necessary to support beginning lecturers in NUR. The reform initiated by the Rector Muligande sized up the same problem and proposed to set up a system of assistantship in NUR: “in order to allow a self-improvement of the teaching staff at the N.U.R., a system of assistantship should be gradually introduced in which teaching assistants would be supervised by their elders and would supervise practical [activities] and tutorials” (NUR, 1997, 27). The knowledge of a professional community and the habits of skills of collaboration among lecturers is also a central tenet of all projects to change in the learning organisation, such as NUR. Sizer (1992), cited in Fullan (1993), pinpoints:

The real world demands collaboration, the collective solving of problems ... Learning to get along, to function effectively in a group, is essential. Evidence and experience also strongly suggest that an individual’s personal learning is enhanced by collaborative effort. The act of sharing ideas, of
having to put one’s own views clearly to others, of finding defensible compromises and conclusions, is in itself educative (p. 45).

This kind of a brainstorming meeting reflects the feature of a learning organisation. If such staff discussions were regularly organised, I suppose that the lecturers would develop confidence in themselves, they would construct a culture to express their concerns, fears, expectations, and they would learn to accept criticisms and work collaboratively. This is a good way they could use to find out new ideas of handling academic matters.

However, it is surprisingly interesting to notice that all the problems highlighted by lecturers relate to the development of new values, new behaviours of teaching and learning, new conception of professionalism of lecturers. In other words they focused their views on a new culture in NUR. None of the interveners pointed out changes in roles or structures. This is to say that restructuring is not reculturing: “stated differently, to restructure is not to reculture – a lesson increasingly echoed in other attempts at reform. Changing formal structures is not the same as changing norms, habits, skills and beliefs” (Fullan, 1993, p. 45). Apparently, it seems that the curriculum change in NUR has been undertaken in terms of restructuring its framework, and that a little bit was done to change the organisation culture. As Fullan argues, “focusing on restructuring prior to working on reculturing puts cart before the horse” (p. 67). It is much more powerful and helpful to start working in new orientations only to realise that the organisational structure is eventually inadequate and deserves to be modified (p. 68). Thus, NUR should learn from the conclusions drawn by Beer et al (1990) (cited in Fullan, 1993) in studying ‘the critical path to corporate renewal’ in twenty-six companies:
• Change efforts that begin by creating corporate programs to alter the culture of the management of people in the firm are inherently flawed even when supported by top management.
• Formal organizational structure and systems are the last things an organization should change when seeking renewal – not the first, as many managers assume.
• Effective changes in the way an organization manages people do not occur by changing the organization’s human resource policies and systems.
• Starting corporate renewal at the very top is a high-risk revitalization strategy not employed by the most successful companies.
• Organization should start corporate revitalization by targeting small, isolated, peripheral operations, not large, central, core operations.
• It is not essential that top management consistently practice what it preaches in the early stages of renewal, although such action is undoubtedly helpful (pp. 67-68).

The process of curriculum change in NUR can be sized up in the following points:

(i) The top management initiated change. The Rectors and the Academic Senate kicked off the process, and the curriculum framework was determined at this level.

(ii) Departments engaged in changing curricula in order to enable the new structure to thrive.

(iii) The propositions made by the Departments were submitted to and analysed by the Faculty/School Council.

(iv) The Faculty/School submitted its curricula to the Senate Commission where some unit representatives discuss the drafts. The Academic Senate created accordingly a commission related to Human Science curricula, and another one for Science and Technology curricula. The purpose of these commissions was to link different units, and create an inter-related set of lectures through the University. However, only few curricula passed through this stage which seems to protract the phase of adoption.
The Dean/Director of the unit referred the project of new curricula to the Academic Senate which owned the right of their adoption. Theoretically, curricula should be implemented after being adopted by the Senate, but three cases of curriculum implementation have been observed:

1) Some curricula were implemented after their adoption. For example, curricula of the School of Journalism and Communication (decision No SA/00/129 of 28 September 2000), and those of the Faculty of Science and Technology (decision No SA/00/133 of 28 September 2000).

2) Some curricula were adopted while they were in the process of their implementation. For example, curricula of the Faculty of Law (decision No SA/00/144 of 25 October 2000), and those of the Faculty of Economics, Social Science and Management.

3) Some others were implemented while the Senate did not yet adopt them. For example, the curricula of the Faculty of Education.

For legal exigencies, the curricula adopted by the Senate should be conveyed to the University Council which is the highest organ of NUR on both academic and administrative level. Afterwards, they should be submitted to the government which legalises them by a presidential decree. It is necessary to mention here that from 1995, the curricula did not pass through these two levels. However, since the government has got the power over NUR, and provides the legitimacy to its change projects,
prejudging its agreement would be a crucial risk able to paralyse change initiatives.

The process of curriculum change in NUR is also characterised by the lack of diffusion and dissemination activities. The university prospectus is no longer published after the Rwandan Tragedy of 1994. The curricula advertisement through the media is almost nonexistent in NUR though I noted some interviews granted by the Rector and the Vice-Rector in order to talk about change in NUR, and a summary of the new curricula (adopted or not) online the University website. As Robbins (1990) points out “the more diffusion in the change effort, the more units will be affected and the greater legitimacy the effort will carry” (p. 396). Diffusion and dissemination activities are necessary in order to show to the stakeholders the outcomes of their efforts rather than speaking about intentions. Those activities increase the stakeholders’ motivation, and help gain the confidence of those who think to sow in vain. They serve also to instigate the team spirit, sensitise, and explain why the involvement of all is required to manage successfully curriculum change.

The changes initiated by Dr Charles Muligande by 1997 did not have the chance to be implemented because one year later they were discontinued and replaced by those introduced by Dr Emile Rwamasirabo. It will be difficult to say that the new transformations resulted from an objective evaluation of the former because they were judged in a very short time. Macq and Bracard (1999) recommended strongly a set up of an evaluation policy of curricula in NUR in order to prevent a patchwork of the curricula which could result from different programmes brought by the visiting staff (p. 17). This is important in that “the National University of Rwanda is at present
suffering from a shortage of teachers so much so that most of the Faculties resort systematically to the system of ‘visiting’ in order to ensure teaching” (NUR, 1997, p. 26). Indeed some lecturers from NUR were killed during the Rwandan Tragedy of 1994, whereas many others went in exile. The need of the curriculum evaluation was also expressed by the report on the diagnostic and self-appraisal in NUR: “In order to raise the teachers’ qualifications and expect the updating of their teaching and improvement of their knowledge, evaluation mechanisms must be set up” (Idem, p. 27). Even though the curriculum evaluation is highly needed, it would be more beneficial if it were applied after the phases of their adoption and continuation.

In order to increase the quality of teaching and learning, NUR created a unit in charge with coordinating and promoting university pedagogy, teaching follow-up, and curriculum evaluation, guidance and counselling for students (CEPU). Supervised by the Academic Vice-Rector, this unit is still under construction, and at the time of writing the section of evaluation is not operational. As the need of planning and formalising the work of lecturers is very limited in the professional organisation, such as NUR, also CEPU should not be highly elaborated in terms of designing the Faculty/School work. Otherwise, it would compromise the freedom and academic autonomy that should characterise the professional organisation.

In summary, the process of curriculum change has been a real challenge in NUR. Change has been initiated by the top management motivated by the regional and international trends, internal problems in curricula such as discontinuity between secondary school curricula and those of NUR, deficiencies in methodology, contents etc. However, how to get these needs identified it is another problem. A prior
academic audit would be necessary in order to shift to a real sustainable change. The top management plays an important role in dealing with change, but this does not mean that other stakeholders, especially lecturers, should wait for others to rethink their own work. Their initiatives and their whole participation are essential and guarantee new values, beliefs, skills, and habits to be installed. NUR focused on the change in structure and less on the change in the culture. This undermines the phase of implementation and that of continuation because what is real needed for the performance and effectiveness of any organisation is to shift to a new behaviour and new habits which make the difference. NUR needs also to set up mechanisms of curriculum evaluation and dissemination so that stakeholders may know where they are in the process and what they ought to do for its accomplishment. Briefly, I tried to show throughout this chapter how NUR can bring about curriculum change according to the features of a learning organisation as a continuous process of its improvement.
CONCLUSIONS AND RECOMMENDATIONS

Conclusions

My case study has tried to show how and why the process of curriculum change was managed in the National University of Rwanda (NUR) from 1995. I studied this institution as being 'a bounded system' in terms of its geographical situation and time, its internal and external context, and the specific phenomenon explored which was the process of curriculum change. I did not initiate my research from predetermined hypotheses or restrictions on the end outcomes, on the contrary, as change is dynamic and complex, I sensed what occurred or what was happening in the natural setting of NUR through a triangulation of participant observation, semi-structured interviews, and documentary analysis. Afterwards, I examined and interpreted data through content analysis.

NUR operates in an environment marked by the war, genocide and massacres undergone in years gone by. Therefore, all efforts to rethink and cope with curriculum change could be recognised alike as responsive to the context generated from those events.

In a professional organisation such as NUR, lecturers need to have a large degree of autonomy over their own work. Thus, they must assume the management of curriculum change for sustainable development. They must continuously consider and reconsider the practical relevance of their Departments, Faculties, Schools, and
courses, and adapt them to the needs and aspirations of the people of Rwanda. However, the assessment of those needs and aspirations is still to be improved in that, as far as I could observe, it was limited to a literature review in some units.

My research has also noted that the country's concerns and aspirations identified by the two main reforms of curricula in NUR from 1995 were very similar in key aspects of culture. For example, both reforms claimed to focus on the practical applications of the theory, build regional, and international networks with other universities, focus on dynamic methods of teaching and learning involving a large participation of students, mount links between the academic training and world of work etc. However, what occurred in NUR in terms of change focused on curriculum restructuring first, even though the purpose was all about the hard work of developing the dynamics of the learning/teaching system in the new culture.

Finally, it has been observed in this case study that, in general, the Department was the basic organ to handle curriculum transformation before referring its project to the Faculty/School Council. The curriculum project came up to the Academic Senate for the purpose of adoption. From this phase and on new curricula could be implemented, even if I noticed that some of them were implemented before their adoption. Practically the process of curriculum change stopped at this stage, though they were also to be referred to the University Council, and then to the Government in order to be legalised. What is needed in all this process is that curriculum change should be the work of all stakeholders, but especially of lecturers. The latter must feel, assume and own their responsibilities for ongoing feature of curriculum improvement. Otherwise, the more curriculum management relies on representatives' work in a professional
organisation, the less will be the commitment of lecturers for its implementation and continuation.

**Recommendations**

After having examined the nature of curriculum change in NUR, and after having determined the extent to which it does or does not foster the essence of a learning organisation and a professional organisation in terms of handling change, it is necessary to reflect on the way NUR community should bring about curriculum change most effectively.

- The University should carry out an academic audit of all academic units combined with a market needs survey. The academic audit should determine the quality of the curricula, their relevance, and their efficiency. The assessment of the market needs should help direct the teaching/learning system with the context of the country, the real-life problems of the population.

- NUR should establish a close contact and collaboration between employers and the Faculties/Schools with a view to facilitate practical activities, research, and market needs assessments. It should allow students to acquire work experience to enrich their academic training.

- Curriculum change efforts in NUR should start by revitalising the values, habits, behaviours, methods, skills, and knowledge prior to working on the
formal structure of curriculum later. Therefore, in order to incorporate curriculum change in a new culture as an ongoing feature of improvement, lecturers should be committed and skilled in working collaboratively among themselves, and with students, and with other stakeholders to seek, assess and communicate knowledge and achievements.

- NUR should establish a feedback mechanism for monitoring and evaluating teaching effectiveness, and lecturers’ performance by students in all academic units. For example, at the end of the module, the lecturer would administer to his students a checklist of questions addressing different aspects of his/her teaching performance for the purpose of feedback. The Department concerned with coordinating teaching activities and university pedagogy in NUR (CEPU) should monitor such evaluation.

- NUR and external experts should undertake evaluation of the University graduates in different work places with a view to improve the quality of NUR training curricula. The evaluation of these curricula should also be carried out after their continuation stage.

- To consolidate a continuous improvement of curriculum in NUR, younger inexperienced lecturers in teaching and research career, and the senior members of the academic staff should work together as a cohesive team for the mutual benefit breaking down the traditional polarisation among lecturers. That said, team teaching should be initiated in NUR. For this reason, CEPU should be reinforced and include functions such as:
- Building networks with novices and their elders.
- Developing mentoring and induction services to new staff members.
- Developing staff support services (e.g. staff appraisal, analysis of tests and exam results, staff counselling).
- Mounting regular staff development workshops.

- NUR together with the National Centre of Curriculum Development should examine and determine modalities of collaboration and shared inquiry for the purpose to articulate secondary school curricula and those of the University.

- Exchange of curricula and staff experience among higher institutions should be strengthened and expanded.

- NUR should put in place reliable and accurate mechanisms of diffusion, dissemination and advertising of its curricula and others achievements.

My case study concentrated on the management of the process of curriculum change in NUR. I think that I scoured the ground for further research on curriculum studies. A lot needs to be done. I hope that my forthcoming research shall be based on a multi-site case study evaluation of curriculum changes in the tertiary education in Rwanda. It is necessary to stress that NUR remains unique as ‘a bounded system’. Thus, the findings of this research should not be generalised to any other university or country.
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APPENDIX

Protocole d’Interview (Interview Schedule)

1. Comment l’UNR a-t-elle identifié les besoins pour introduire les changements dans les programmes d’enseignement ?

2. Y’a-t-il eu intervention des acteurs externes pour aider à évaluer les besoins de changement dans ces programmes ?

3. Quelles sont les critères suivis pour créer, fusionner ou supprimer les Départements, les Facultés ou Ecoles ? Y’a-t-il eu des Priorités ?

4. Qui a initié le changement des programmes à l’UNR et comment ?

5. La mise en application des programmes nécessite le support des moyens humains, matériels et financiers. Que pensez-vous des insuffisances des ces moyens à l’UNR ?

6. Quelle a été la stratégie de collaboration entre les différents partenaires internes et externes dans l’adoption et la mise en œuvre des programmes ?

7. Quelles sont les stratégies appliquées par l’UNR pour former des professionnels capables de se créer des emplois ?

8. Comment se fait la diffusion de ces programmes et où peut-on les trouver ?

9. Que pensez-vous de la liberté académique à l’UNR ?

10. Y’a-t-il articulation ou désarticulation des programmes du secondaire et ceux de l’UNR ?

11. Y’a-t-il eu évaluation des programmes à l’UNR ? Sinon pourquoi ?

12. Comment l’éducation au Rwanda en général et à l’UNR en particulier a-t-elle été un des instruments qui ont conduit au génocide et aux massacres de 1994 ?