

Research Application Summary

MSc curriculum development and the necessary quality assurance for effective delivery, based on the experiences under the ADECEA MSc program for Burundi and Ghent University processes and experiences

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Abstract

The higher education system in Burundi was recently restructured on the basis of the “LMD” “Licence, Master’s, and Doctorate” degree system. The Faculty of Agriculture and Biotechnology (FABI) made an effort to revitalize the academic environment with the ambition to start a new “Master Program in Rural Development”. The procedure started with the assessment of the proposal (the so-called EDULINK Master Program). It was a complex exercise, given the differences in context (stakeholders, specific visions, diverse interests) in which the different departments of FABI were operating. The discussions were often “loaded” as it raised questions such as who should lead in the debate and who take the final decisions. The ADECEA project, financed by the EU, facilitated the critical analysis of the objectives, curriculum, deployment of personnel, facilities, internal quality assurance and expected results. The methodology used for this was quite rigid. The stakeholders made additional recommendations, prior to the acceptance by the Faculty Board. The proposal for the new MSc program is now introduced for national accreditation.

Key words: ADECEA, Burundi, EDULINK, evaluation methodology, Master programme in rural development

Résumé

Le système d’enseignement supérieur au Burundi a été restructuré récemment sur base du système “LMD” “Licence, Master, Doctorat”. La Faculté d’Agriculture et de Biotechnologie (FABI) fait dans ce contexte un effort pour revitaliser le niveau académique avec l’ambition de lancer un nouveau programme de maîtrise en développement rural. La procédure d’analyse de la proposition a commencée par un exercice complexe, vu les différences de contexte des parties prenantes, des visions spécifiques et des intérêts divers dans lequel les départements de la FABI fonctionnaient. La discussion a souvent été chargé du aux questions telles que: qui doit mener le débat et qui décide et approuve les décisions. Le projet ADECEA, soutenu financièrement par l’Union Européenne, a facilité l’analyse critique des objectifs,

des programmes, le déploiement du personnel, les installations, l'assurance de la qualité interne et les résultats attendus. La méthodologie utilisée pour l'évaluation de la proposition était assez rigide. Les stakeholders ont pu faire des recommandations supplémentaires avant l'acceptation par le Conseil de Faculté. La proposition pour le nouveau programme mastère en développement rural est maintenant mise entre les mains des responsables de l'accréditation nationale des programmes d'enseignement supérieures.

Mots clés : ADECEA, Burundi, EDULINK, méthode d'évaluation, Mastère en développement rural,

Background

In recent years the quality of some African Higher Education Institutions were adversely affected by harsh economic, social, political and even conflict situations. This is the case for the University of Burundi. Over the last years this university has experienced escalating enrolments, declining resources and academic brain drain. These constraints have led to the deterioration in infrastructure, lack of resources for non-salary expenditures, such as textbooks and laboratory equipment, and a decline in the quality of teaching and research activities.

The Faculty of Agriculture and Biotechnology (FABI) at University of Burundi made an effort to revitalize the academic environment and to stop the deterioration. This process aimed at reaching acceptable standards of education, teaching, administration and infrastructure. Quality assurance was identified as an issue that needed urgent attention. One of the objectives was to start a new MSc program. This paper does not discuss the content of this MSc program on rural development but on the procedures used in setting up the curriculum.

Assuring quality starts with a critical self-analysis

The University of Burundi, at the Faculty of Agriculture and Biotechnology (FABI) wanted to set up a new LMD program on Rural Development. The process started by performing a critical self-evaluation analysis of the institutional capacity of the faculty. As different departments at the Faculty of Agriculture and Biotechnology (FABI) of Burundi had the ambition to start new master degree programs, an internal assessment on the prevailing education and teaching standards was proposed. It was a complex exercise given the differences in context in which the different departments of FABI were operating. It was important, prior to any attempt, to look at the mission, vision, goal and policy of the university as whole but also at the attitudes, objects, actions of the different departments at the Faculty of Agriculture and Biotechnology (FABI). The EU facilitated this process by financially supporting the ADECEA project (Grant No. FED/2013/320-203). The outline of the self-evaluation report was as follows:

Rationale and design of the program

This included:

- a: The current organization at the University of Burundi (UB) (current training programs, research program, administrative structure, composition of academic staff, the current budget);
 - b: Organization and administrative framework of the new master program; and
 - c. Program importance (including: importance for the country, the interest for students / stakeholders who are / is that there are ministries directly involved);
2. Quality standards of the new master program. Under this the following elements were considered:
- a. What are the targeted objectives of the new program?;
 - b. What are the quality consideration during the program? (if it already exists); and
 - c. Critical reflections and future prospects of the new program
3. New program staff in terms of teaching and administrative arrangements
4. Facilities for the new program (accounting for laboratory and administrative services for both education and research)

The self-evaluation report was first and foremost a critical analysis of the objectives of the new study program, curriculum, deployment of personnel, facilities, internal quality assurance and expected results. The outcome of this exercise was to give an overall picture of the relationships between the objectives and the content of the curriculum, the coherence of the study program and the alignment (in terms of content and educational methods) between the components of the study program.

Evaluation framework of the Master proposals

Specific indicators were designed to examine whether the program met the needs and expectations of students, university and government. This framework was quite rigid and some questions could not be answered. The following evaluation framework (Table 1) was proposed.

The evaluation of the proposal was followed by a Swot analysis, which yielded the following points of interest.

A: Forces	B: Weaknesses
Internal factors that positively affect your performance <ul style="list-style-type: none">• what do you do exceptionally well?	Internal factors which negatively affect your performance <ul style="list-style-type: none">• what could you do better?

Table 1. Evaluation framework of the Master proposals

Categories	Benchmarks	General Indicators	Specific Indicators	Verification
Needs, objectives and results of the Master	Mission statement of the Master The needs of stakeholders and how the master fits with national priorities and reforms undertaken by the government	Does the proposal have a mission statement formulated that defines the program, framework and concept of the study program? Have the needs of stakeholders been identified?	Why will the students be attracted to apply for this Master program? The views of stakeholders (government, university authorities, employers, NGOs, alumni) were accounted for during the development of the Master program The needs of stakeholders are consistent and well understood by the team (teachers, assistants and students) who developed the curric	The mission statement defines the framework and concepts of the Master program. The needs of stakeholders were identified and there is evidence that this information was used in the development of the curriculum. The framework of the Master program fits in the national priorities outlined in the strategic framework for growth and poverty reduction (PRSP-II)
Objectives and planned outcomes of the curriculum	What are the objectives and the expected results of the program?	Is the proposed program interesting for students?	The results of the master planned are tailored to the needs of students so they can get a job after the completion of this master's program.	

Categories	Benchmarks	General Indicators	Specific Indicators	Verification
The educational process	Planning of the educational process	This program ensures the achievement of the results of the master planned?	<p>Do the contents of the different parts of the program match?</p> <p>Does the master program meets the needs of students?</p> <p>Does the program ensure that students continue to benefit from the knowledge and skills acquired?</p> <p>Is there any overlap or duplication that can be avoided?</p> <p>How do teaching and learning interact with the development of science and knowledge of the discipline?</p>	<p>What is the added value for the program due to the contribution of the partner institutions?</p> <p>How to ensure that students maximize the benefits of the program?</p> <p>The program meets the needs of students.</p> <p>The program has an added value through the contribution of partner institutions.</p> <p>Procedures have been put in place to ensure that there is no overlap or duplication.</p>

Categories	Benchmarks	General Indicators	Specific Indicators	Verification
	Teaching process of the master		What teaching strategies are used in the master program that generate added value to the program?	The teaching strategy of the master program can achieve the results mentioned
Educational resources and staffing partnership	Endowment	<p>Describe the philosophy that underlies the balance between the different teaching processes, including classes, seminars and individual work and/or group work.</p> <p>How do the skills of academic and technical personnel support the results of control?</p> <p>Do Part time teachers have an added value? Is there a balance between teaching staff and researchers in support of the program?</p> <p>Is the number of teachers, technical and support staff sufficient to ensure a Master program that meets the required standards?</p>	<p>What are the teaching strategies used to generate added value for the implementation of educational program?</p> <p>Demonstrate the benefits to the study of the expertise provided by the program staff</p> <p>Does the staff have appropriate experience in teaching and research?</p>	<p>The balance between lectures, participatory seminars, practical work; individual study and group study are appropriate for achieving results.</p> <p>The skills of the teaching staff, and technical support are appropriate to support the achievement of the results of the master.</p>

Categories	Benchmarks	General Indicators	Specific Indicators	Verification
	Facilities	Are the library facilities, classrooms, laboratories, equipment, field equipment and specific facilities sufficiently support the results of the Master?	Specific equipment is used to generate added value to the program?	The facilities are adequate to allow students to achieve the results of the Master
	Resource allocation	How are resources related to the needs to run the program?	Are additional resources allocated to meet the needs of the students?	The curriculum has sufficient financial resources to ensure the results of the Master
	Interactions with external organizations (eg, government, private sector and other higher education institutions)	Do external organizations contribute to achieving the results of the Masters?	International organizations contribute to the achievement of the results of the Master program?	The program benefits from the contribution of external organizations for the realization of the Master program.
Student selection	Student selection	How is recruitment and selection of students organised? What are the eligibility criteria and requirements?		The student selection process is a clearly defined approach to evaluate whether prospective students have appropriate prior knowledge to follow the curriculum

Categories	Benchmarks	General Indicators	Specific Indicators	Verification
		How does the selection process ensure that students in the program have prior knowledge, ability and attitude to achieve the results of the Master in the time allotted?		
Available support to students welfare services	Access to the labor market	What are the job opportunities and the potential employment opportunities for the students?	The Master's curriculum provides a springboard for either further study or for a suitable career	
	Welfare services	Are welfare services for hosting legal, financial, physical well being and mental support provided to meet the needs of students?	Are additional welfare support services needed and provided to the students?	Welfare support services (housing, legal, financial, wellbeing) are available to insure physical and mental support.

Categories	Benchmarks	General Indicators	Specific Indicators	Verification
	Financial information and support services	How are students informed of the financial opportunities on their curriculum?		Prospective students receive clear and complete financial information on tuition and living expenses.
	Decision making process	Is there an organization and processes of decision making set up to examine the results of the program?		The design, development and delivery of the curriculum meets a defined review process in both partner institutions and the consortium of partner institutions (EDULINK) that offer the Master program
	Internal assurance of quality and development systems		Describe how internal quality assurance processes at various partner institutions ensure the development of the curriculum	There is a defined process to ensure that internal quality assurance procedures are followed. Internal procedures are defined to evaluate the success of study results
	The inclusion of the student voices	Are students involved in the processes of decision-making and in the assessment and monitoring of the curriculum? If so, how are they involved?	How are students involved in the processes of decision making and in the assessment and monitoring of the curriculum?	Students are involved in the committees making decisions on the management and quality assurance of the curriculum
	Staff development	Are staff made aware of educational and international developments in their area of discipline?		

<ul style="list-style-type: none"> • what are the benefits that distinguish you? • what are your best resources? • what are your strengths to the needs of the countries and stakeholders? <p>C: Opportunities</p> <p>External factors, which you can leverage to improve your performance</p> <ul style="list-style-type: none"> • what are the opportunities that you know but that you have not used? • what are the emerging trends (technology, donors, ..) you could take advantage of? 	<ul style="list-style-type: none"> • what are the main criticisms against your master project? • where are you vulnerable? <p>D: Threats</p> <p>External factors that can affect your performance</p> <ul style="list-style-type: none"> • what are the internal and external changes coming that may make you vulnerable? • what are the external obstacles that block your progress? • how the financial conditions affecting your master project?
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Stakeholders meeting. On the basis of the above-mentioned documents, suggestions were given in preparation of a curriculum stakeholder workshop. The stakeholders made additional recommendations on: (a) The number of credits and model of delivery (semester/modular) which need to be harmonized with the model used in the region (particularly in the RUFORUM network) to facilitate course delivery and exchange of staff and students; (b) Harmonise the course format; and, (c) Work on a credit transfer system at regional and international level to facilitate student mobility and degree recognition, and international accreditation.

Proposed templates for course content development

A list of courses and their description were proposed for the new Master program. The faculty accepted the MSc Curriculum and the proposal was introduced for national accreditation. In preparation of the implementation of this MSc program an example¹ was prepared to show the structure of the course material. It included: Aim of the course, structure of the course, course content, supplementary materials, and written exam (i.e., example of a multiple choice exam question, example of a theoretical exam question, example of a discussion exam question, assignments; essays on development economics, critical questions

Fifth RUFORUM Biennial Regional Conference 17 - 21 October 2016, Cape Town, South Africa 245
at the end of each chapter, assignments and multiple-choice questions at the end of each chapter, and assignment related to basic calculations).

Conclusion

Setting up a new MSc programme in Burundi was a lengthy process and it was absolutely necessary to maintain and ensure the quality of any new programme. Some countries are even more critical in the set up of new Master Programs. For example South Africa has formulated 19 generic criteria to design academic programs that apply for accreditation. These criteria for program accreditation are also used as the basis for an institution's self-evaluation.

Quality assurance is a complex multidimensional phenomenon. It is often loaded and emotional as it raises questions such as who should lead the debate and who decides and endorses it. The context of the country and its specific and societal, economic and educational imperatives, are key drivers determining not only the structures of the programs and course contents but also the relevance of particular quality assurance approaches, mechanisms and procedures. Currently not all higher education systems have made arrangements towards programme accreditation and reviews. Further existing procedures are not equally developed, advanced or rigorous. There is a general acceptance, regardless of the discipline or professional requirements, that at least a number of generic quality criteria should provide evidence of the programme quality, e.g. clear outcomes, curriculum alignment, reliable, applicable and innovative assessment practices. In this life science graduates are expected to enhance the life quality of communities and individuals. No country can afford to compromise on the quality of academic programmes and all efforts should be made to assure the quality thereof.

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