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Curriculum Design and Development in Higher Education

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Abstract : Curriculum is the formal and informal content and process by which learners gain knowledge and understanding, develop skills, and alter attitudes, appreciations, and values under the auspices of an academic institution. Curriculum development is understood as a process implying a wide range of decisions concerning learning experiences, taken by different actors at different levels, i.e. politicians, experts, and teachers at the national, provincial, local, institutions and also international levels. Good curriculum design can help an institution to get the most from the resources it has available; it can also lead to a curriculum which is easier to modify and update subsequently, helping the ongoing process of curriculum development. Credits are a measure of the amount of student time demanded by each element of the curriculum,. When designing a curriculum in which credit points are incorporated right from the start, a potentially freer range of choice in the use of credit values presents itself. In the integration of education, research and innovation working together as key drivers of the knowledge economy in delivering sustainable growth.

Keywords: Higher education; curriculum development; curriculum design, credit points.

Definitions of curriculum:

Standard dictionaries define curriculum as a course of study offered by an academic institution. According to Ronald Doll, curriculum is the formal and informal content and process by which learners gain knowledge and understanding, develop skills, and alter attitudes, appreciations, and values under the auspices of an academic institution. In other words, curriculum can be defined as the total experience

In educational literature, the word curriculum has been defined in the following ways:

- "Curriculum is such "permanent" subjects as grammar, reading, logic, rhetoric, mathematics, and the greatest books of the Western world that embody essential knowledge".
- "Curriculum is those subjects that are most useful for living in contemporary society".
- "Curriculum is all planned learning for which the institution is responsible".
- "Curriculum is all the experiences learners have under the guidance of the institution".
- "Curriculum is the totality of learning experiences provided to students so that they can attain general skills and knowledge at a variety of learning sites".
- "Curriculum is a structured series of intended learning outcomes".

The other terms that are commonly used as synonymous to curriculum are syllabus and course. But curriculum can refer to any level of an educational experience, from that of a particular area within a course, to the course itself, to a broader program of study that comprises a number of different courses around a particular content area. Curriculum is often used to refer to a focus of study, consisting of various courses all designed to reach a particular proficiency or qualification; Syllabus refers to the content or subject matter, instructional strategies and evaluation means of an individual course. The collective syllabus of a program of study represents a map of the curriculum for that program. A curriculum is developed through planning for a larger program of study and then building syllabi for courses to manifest the curriculum design and plan. However, even developing a syllabus for a specific course can be thought of as a form of curriculum development.

Curriculum Development:

Within higher education a curriculum or a program of study is a pivotal issue in the relationship between students, teaching staff and the university. However different stakeholders experience the curriculum (as a program of study consisting of several courses) from their point of view and are often only aware of a part of all important aspects building the curriculum. Therefore curriculum issues are complex to discuss with those different stakeholders. Clear and useful tools that describe all curriculum building blocks and their relationships can be helpful to stimulate all stakeholders to tackle educational issues taking into account the entire curriculum perspective.

Curriculum development is understood as a process implying a wide range of decisions concerning learning experiences, taken by different actors at different levels, i.e. politicians, experts, and teachers at the national, provincial, local, institutions and also international levels.

Curriculum overall can be viewed as a composite whole, including the learner, the teacher, teaching and learning methodologies, anticipated and unanticipated experiences, outputs and outcomes possible within a learning institution. The basic premise is that teachers' professional development is most effective through their active involvement in curriculum design communities. Here teachers are not passively receiving evidence from research and are asked to simply carry out teaching tasks, but they actively apply both research and practical evidence in code signing curricular products and learning scenarios for their own classrooms The three components of curriculum innovation can be represented by a triangle of which the design approach, teacher development, and participation and collaboration in communities are the three angles.

In the integration of education, research and innovation working together as key drivers of the knowledge economy in delivering sustainable growth. The central research theme is participation and designing by teachers in curriculum design communities and the effectiveness of these factors on teachers' professional development and curriculum innovation in science education. Research shows that

curriculum implementation will be positively affected by involving teachers, to varying degrees, in shaping curricular products and learning scenarios in their own classrooms. These are few factors that influence curriculum design viz: 1) political factors, 2) social factors, 3) economic factors, 4) technological factors, 5) environmental Factors, 6) student psychology. Care has to be taken that any curriculum needs to be developed in the light of the organization or context in which it is going to be delivered.

Good curriculum design can help an institution to get the most from the resources it has available; it can also lead to a curriculum which is easier to modify and update subsequently, helping the ongoing process of curriculum development. In general terms, an effectively designed curriculum will tend to have the following features:

• Well-balanced: the various components are each given their different weight, as appropriate, but no element is given more than its fair share.

• Full, but not overloaded: deliverable within the resources available - an over-full curriculum will, in any case, lead to students choosing which elements they will attend and which they will miss, since they can't attend everything. The waste in such a situation is obvious.

• Flexible: adaptable to the different needs of different students; responsive to changing priorities

and alert to likely future requirements of the profession.

• Progressive: encouraging students to grow and develop as they pass through the programme,

often by starting with a structured and largely compulsory pattern of studies and moving to one in which choice plays a greater part.

• Student-centred: recognizing that, for each student, the curriculum is more than simply the pattern of lessons and classes that the institution offers – it is the sum total of everything the student is learning and absorbing during his or her time at the conservatoire.

• Focussed on learning: selecting teaching methods and methods of assessment on the basis of

how well they encourage learning and then demonstrate that it has been achieved.

Use of credit points in curriculum design:

Credit points are a clear and easy way to show how the volume of one element of the curriculum compares with another and how the whole curriculum adds up to a volume of study that is manageable for the student -and comparable with curricula in other institutions. an existing curriculum can be divided into suitable numbers of credit points for each element and how to deal with the fact that everyone tends to feel that their part of the curriculum is the most important - and therefore should have as many credits as possible associated with it. Credits are a measure of the amount of student time demanded by each element of the curriculum,. When designing a curriculum in which credit points are incorporated right from the start, a potentially freer range of choice in the use of credit values presents itself. Under these circumstances, it can be extremely helpful if some system of standard credit volume is used.

Proposals for curriculum development:

In the case of a curriculum revision the following steps will be proposed:

1. Revising the existing learning outcomes by consulting alumni, labour market, research community, students and faculty

2. Mapping the new learning outcomes against the existing courses of the program (learning outcomes, teaching strategies, assessment)

3. Defining the learning trajectories throughout the curriculum

4. Discussing the gaps and overlap within one learning trajectory by teams of involved faculty

5. Make the necessary adjustments in the structure, sequence of the program followed by adjusting the content, learning outcomes, teaching strategies or assessment of individual courses

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