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Curriculum Development: Strategies and Guidelines: a Case Study from the United Arab Emirates University

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Curriculum Development: Strategies and Guidelines: a Case Study from the United Arab Emirates University. (Proceedings)

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Abstract:

Higher Education is considered the final step that enables young adults to become mature, well-trained and efficient employees, ready to embrace a working life. Throughout the world, new programs are constantly created in order to prepare young people, adapting new methodologies and techniques in alignment with the job demand offered by new emerging industries. This study is a guideline on how to initiate a new undergraduate program within high education institutions: it considers fundamental steps that assess and verify the need of such program, and whether it is viable. It then elucidates on all the necessary steps needed to develop a proper curriculum; finally, it enlists approval bodies in order to get the program up and running.

Keywords: Curriculum Development, Higher Education, Accreditation.

Introduction: History of the Curriculum

Education and curriculums have been around for hundreds of years; however, the very first book on the subject was written by Franklin Bobbit, in 1918 (Bobbit, 1918). A pivotal point in the development of curricula happened in the late 1950s, when a group of scientists met to discuss and improve science education. After that conference, Professor Jerome Bruner wrote the book '*The Process of Education*' which provided an account of the major themes and conclusions that emerged from that forum (Howard, 2007). Nowadays, curriculum development has become a dynamic process due to the changes that occur in our society. Bilbao defines curriculums as "the total learning experiences of individuals not only in school but society as well" (Bilbao, 2008). The whole process of creating a curriculum is considered as a planned, purposeful, progressive, and systematic mechanism which purpose is to create positive improvements in the educational system. Furthermore, there is a need to update them on regular basis, to address the society's needs: every time there are changes or developments happening around the world, school curricula are affected. Simply speaking, curricula function as a development of our society.

Viability of a program

Before engaging in the endeavour of creating a new program, research ahead needs to be undertaken in order for the curriculum to be realistic and viable. The new program needs to fulfil a job demand; it needs to be similar to other already existing programs but, at the same time, it should offer something new, innovative and attactive. First, it is paramount to search through the university / college or school's course catalog to see whether similar programs already exist. The new program should be unique to the school and fill an educational gap. It must be considered whether the program will compete with existing programs and bring new students to the university / college / school. The program should also be compatible with the university / college / school's' vision for the future and fit within the university/college/school structure.

Eisele, back in the late 1960, suggested that a curriculum should be: (a) service oriented; (b) originated by those using it; (c) teacher oriented; (d) realistic and (e) it should prioritize quality over quantity (Eisele, 1969). It is therefore vital to look at different regional and similar programs and draw ideas from them. If specific programs are offered, the new program has to fit in the same category, but it needs to have something 'original'. A new program is only as strong as the ability of the university to see the results of the educational effort to enable the students to enter the workforce.

Employability and Student Demand

A new program within a university should be able to draw new students without competing against other existing programs. Its existence should also be determined on whether there is a need for the program in the region, and whether graduates will be able to find an occupation, after its completion. Only in this way would a new program be sustainable. Taking the time to research the past, current and future job market trends will be worth the time and effort. An institution will be putting considerable time and resources into starting any new program, so it is essential to point to evidence that their expenditures will have a return for their investment. It is necessary to contact potential employers and ask them to complete an *employability* survey that focuses on their needs, and whether they would hire graduates from the new program in the future. To show that the skills students will gain from the new program will be desired from graduates in the near and distant future, many companies should complete the survey as possible.

With regards to *student demand*, Gills, McLure and Dockery affirmed the willingness of individuals to pursue an education can be frustrated by the lack of available or suitable places in particular courses and at particular institutions. (Gills, McLure & Dockery, 2005). Student demand would reflect the quantity of a service that individuals are willing to pursue to fulfil requirements that make them professional in their area of study. Simply speaking, a student demand is a questionnaire which aims to find out the interests of students in order to mold the curriculum to their demand.

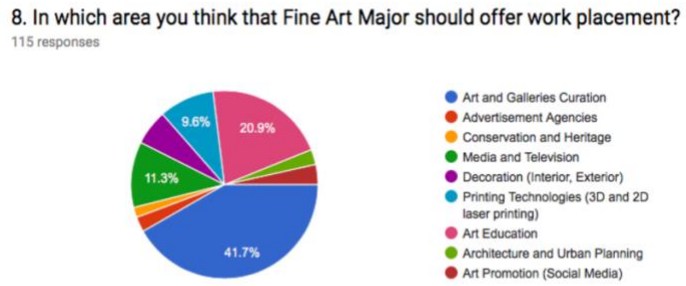

Figure 1

In the example above illustrated, (Fig.1), a survey was launched to find out whether students at the Arab United Emirates University were interested in an Art Major. Therefore, questions related to their own interests as students, elaboration of the course offered, proposals of new courses would be the type of questions asked in this survey. In other words, a student demand needs to help shape courses, facilities and structures requested by the students. Results of the survey are incorporated into the Course Proposal.

Getting started: Rationale & National Framework of Qualifications

In order to get the program started, it is important to write a convincing rationale. This is a short statement that should answer the need for developing a proposal. It is a very important part of the proposal as it justifies the significance and novelty of it; it is also referred to as the justification of the study (Moola, 2015). The rationale should be divided in few sections: an overview of the current situation, a reason why the current situation should be improved and the solution on how to sustain the current situation (Editage Insight, 2018).

Another factor that shapes the designing of a program is the National Framework of Qualifications (NQF). The NQF encompasses a 10-level, single national entity through which all learning achievements may be measured and related to each other. Underpinned by quality assurance principles, the NFQ describes qualifications in a country's education and training system and sets out the type of qualifications valid for that country (QQI, n.d.).

The system, first developed in Ireland, has expanded to over 150 countries, which are now developing or have developed their own national qualifications framework. Specifically, if we take the United Arab Emirates as an example, the National Framework of Qualifications are under the National Qualifications Authority (NQA). This is committee supervises all the training programs in UAE and has devised the Qualification Framework Emirates (QFE), which encompasses ten educational levels which are matched with five strands of learning outcomes. These reflect what is expected to be achieved for the respective level, for each qualification. The QFE are, in other words, the National Learning Outcomes, which are matched to all courses in the country.

Institutional, Program and Course Learning Outcomes

Institutional Learning Outcomes (ILOs) define the core competencies that graduates will need to prepare them to be successful in their chosen discipline areas, assume future leadership roles, and contribute to a national research effort. Students are expected to achieve the following learning outcomes through their academic work in their degree program, including general education and the major, and their co-curricular activities. Taking for example the United Arab University's outcomes, upon successful completion of a degree, graduates will be able to: (a) demonstrate knowledge and skills in a particular discipline and apply these ethically in real-life contexts (*Disciplinary Competency*), (b) apply research skills in their academic work *(Research)*, (c) locate, evaluate, and effectively use information derived from a variety of sources (*Information Literacy*), (d) analyze quantitative data and draw reasonable conclusions (*Quantitative Reasoning*), (e) evaluate issues logically, from multiple perspectives, and develop reasoned and creative solutions (*Critical Thinking*) and (f) communicate effectively, both orally and in writing, to diverse audiences (*Communication*); (United Arab Emirates University, 2020).

Program Learning Outcomes (PLOs), instead, are a description of the knowledge, competencies and values a student displays at the conclusion of the program. PLOs help students understand why this knowledge and these competencies will be useful to them. They highlight the context and potential

applications of knowledge and competencies, help students connect their learning to various situations, and guide the selection of evaluation methods. Good learning outcomes focus on knowledge application and integration, showing how students can make use of the material and content, both inside and outside of the classroom.

With regards to the proposal documetation for a new program, the Qualifications Framework Emirates are matched with the Program Learning Outcomes at many stages throughout the proposal. In the table below (Fig.2) it is shown how each PLO is matched with each strand of the QFE. All the strands and all the PLOs must be covered.

VSCI QFE-LO Mapping	Knowledge (K)	Skill (SK)	Autonomy and responsibility (AR)	Role in context (RC)	Self-development (SD).
PLO1: Explain the visual world and the art it creates in various cultural contexts.	X				
PLO2: Analyze, verbally and in writing, a variety of visual objects in their proper cultural and historical contexts.	X				
PLO3: Create visual artifacts using various media, such as drawing, painting, photography, graphic and 3D design/Sculpture.		X			X
PLO4: Assess the interface between visual culture and society from the classical to the contemporary period.			X		
PLO5: Exhibit an understanding of contemporary visual art practice			X	X	X
PLO6: Contribute to artistic concepts in various subfields of visual studies.		X		X	X

Figure 2

Ultimately, Course Learning Outcomes (CLOs) center on what the student should realistically be able to achieve during the course. All learning outcomes must be aligned using Blooms' taxonomy, which

maps the different levels of learning and uses a range of descriptive verbs, matched to the level of six progressive learning stages (Armstrong, 2010).

CLOs should be based on three areas of learning: *knowledge*, *skills* and *attitudes* and should translate to the material that a professor plans to teach to cover discipline-related questions discussed in class, as well as the particular educational approach. The example below (Fig. 3) displays four Course Learning Outcomes for a Digital Design course.

1	Identify programs used in 2D and 3D digital design
2	Define the main characteristics of a digital space
3	Demonstrate an ability to manipulate digital shapes and forms
4	Develop simple models using selected design software

Figure 3

The Creation of New Courses: The Importance of Cross-Curricular Programs

After having established the Program Learning Outcomes, the next step is to create courses within the new proposed program. Research the required courses for the programs within the selected university so curriculum developers can have a framework to begin. In addition to the pre-existing General Education Requirements, each university will have standard guidelines for the amount of credit/contact hours required for a specific type of program. Most universities have 120 CH (credit hours) for an undergraduate course. Such course, however, should comprise of General Education CH, Professional Studio Track CH, Major and Elective CH.

Cross-Curricular Courses, which were first brought up by French psychologist Edgard Morin in 1999, are now paid more attention to, because they help converge knowledge and interdisciplinary approaches which are needed to understand the complexity of the world (Playfair, 2020).
Claus Michelsen, a professor working for the European Education Commission, solidified some findings on cross-curricular teaching across five different European countries. Cross-curricular teaching was then defined as:

"Teaching that involves a conscious effort to apply knowledge, skills and competences to more than one subject area simultaneously with the rationale of forming autonomous citizens, solidary and responsible, intended for a democratic, inclusive and fair society"

(Amario, 2013; EACEA, 2013).

In other words, institutions should prepare students to the complexity of the real world. Interdisciplinarity courses allow the study of objects, concepts and events from different angles and can put these various subjects into perspective in relation to each other, turning knowledge into a value coherent to the real world. Theories as such, however, are often difficult to implement; teachers are often deprived of resources to create cross-curricular programs, sometimes for lack of cross-cultural competences, training, time, and because they need to attain to their pre-established curriculum. Michelsen, however, asserted that the teaching context based on national curricula should be rethought (Michelsen, cited in Timmerman, 2016). For instance, the assessment of students must evolve to take into account all pedagogical approaches, teachers should share teaching practices and management should facilitate this new approach, because multi-ability is seen as the skill for the future (Choen, 1982).

With further discussion to the curriculum, it is necessary to create a new description for each new course and, along with it, create a set number of Course Learning Outcomes (previously discussed).

It is also recommendable to start introducing Blended and Online courses, to ensure a maximum accessibility for students, and also to be in competence with the increasing number of online programs offered across the world. Blended courses (also known as hybrid or mixed-mode courses) are classes where a portion of the traditional face-to-face instruction is replaced by web-based online learning. Blended courses are normally designated to be a 25-74% delivered online: there is a reduction in seat time and the requirement for some face-to-face meetings. For universities, blended courses can be part of a strategy to compensate for limited classroom space, as well as a way to think differently about encouraging faculty collaboration.

For faculty, blended courses can be a method to infuse new engagement opportunities into established courses or, for some, provide a transitional opportunity between fully face-to-face and fully online instruction. For students, blended courses offer the conveniences of online learning combined with the social and instructional interactions that may not lend themselves to online delivery (e.g., lab sections or proctored assessments).

Online courses, with concepts such as asynchronous and student-centered learning, offer unprecedented opportunities for people who would otherwise have limited access to education. However, they might not be ideal for specific courses, such as hands-on training and courses where physical resources should be explored. Online courses might also not be recommended for young learners, who need companionship to form and develop social relations.

Benchmarking and further documentation

In order to have a program accepted and accredited, a benchmark against other similar regional and international programs must be carried out. Benchmarking is a way of evaluating and comparing a new program to the standards of similar programs to ensure that the new program is of high quality and will stand the rigors of external evaluations.

Benchmarking can be focused on many different areas and can be simple or complex. It is suggested that benchmarking be focused on the PLOs of the new program and that a benchmarking table be created. Some key areas to benchmark are: (a) the reputation of the universities you choose to benchmark; (b) the course types and credit hours in the program; (c) the Course Learning Objectives; (d) the degrees and specializations; (e) the assessment strategies and (f) students' employability after graduation.

In the Program document a table showing a benchmarking information with similar programs in the region should be added. The below table is a benchmarking example between the courses proposed in the new program at UAE University and other existing programs of local universities (Fig. 4).

University	UAEU	American University in Dubai	American University of Sharjah	Canadian University Dubai	Zayed University
Title of the degree	BA in Visual Studies	Bachelor of Fine Arts in Visual Communication (B.F.A.)	Bachelor of Science in Visual Communication	Bachelor of Arts in Creative Industries	Bachelor of Arts and Creative Enterprises
Total credit hours	120	120	126	120	120
Tracks offered					
Media & Advertisement		☑		☑	
Digital Media		☑	☑	☑	
Interior Design					☑
Animation	☑	☑			☑
Graphic Design		☑	☑		☑
Digital Design	☑		☑		
Fashion				☑	
Communication studies				☑	☑ (Multimedia)
Art History & Criticism	☑			☑	☑
Art & Curation/ Business	☑			☑	☑
Drawing	☑	☑			☑ (design)
Painting	☑	☑			☑ (Visual Arts)
Photography	☑	☑			☑ (Visual Arts)
Sculpture &	☑				☑ (Visual Arts)

3D Design					
Printmaking techniques		☑			☑
Film/Television Editing		☑			
Typography & Publishing Design			☑		
Game Design	☑	☑			
Digital Design	☑	☑	☑	☑	☑
Textiles/Fashion Design				☑	
Ceramics & Glass					
Jewelry Design				☑ (digital)	

Figure 4

Another fundamental step to take is to have the proposed program assessed by external reviewers. These specialists - normally Deans or Chairs - read and review the program to help it further it to the next step. Furthermore, Curriculum Developers might be required to provide documentation, such as assessment for facilities, laboratories, risk mitigations, quality assurance, staff meetings, which should be incorporated in the new proposal in the form of appendixes or attachments.

The final step: accreditation

After submitting the main proposal to a university and after permission is obtained to start the formal proposal process, Curriculum Developers might want to consider whether the program could benefit from being accredited. If so, developers should consider their general university accreditation and their program accreditation at the same time. It is therefore paramount to find out which accreditation body will be able to accredit their specialty program. For example, the accreditation body for Arts is the National Association of Schools of Art and Design (NASAD). In the NASAD main page requirements for new programs can be found, and templates for application can be downloaded. It

will be an exacting and time-consuming process to put a program proposal in the correct format with all of the required information.

Conclusion

Creating, collating and launching a proposal is a strenuous, time-taking and meticulous work. It is also deeply engaging and informative because, through its compilation, curriculum developers learn about internal and external laws, agreements, processes, overseeing institutions and bodies, as well as other departments which seem disconnected from the main project but, ultimately, they are all interconnected and interdependent. Finally, we may conceive the approval of a new program or curriculum as a successful achievement, well knowing that programs and curriculums are designed to support students, reinforce their skills and shape them for the future.

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