Research in Tuning

Presentation of some research work

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Double research

⇒ Design of an evaluation model for competence based learning (CBL) implementation in higher education institutions: criteria and indicators

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Impact of Tuning in CBL development

⇒ Application of the model to different universities

Starting on 2016-2017

Interdisciplinary team

Two publications

Design of an evaluation model for competence based learning (CBL) implementation in higher education institutions: criteria and indicators

Research Question	Methodology
What are the **key dimensions** for the implementation of CBL in a higher education institution?	Qualitative Document analysis Exploratory
What **criteria** and **indicators** may express those dimensions?	

Design of an evaluation model for competence based learning (CBL) implementation in higher education institutions: criteria and indicators

Context: 1. legal and and administrative
2. institutional
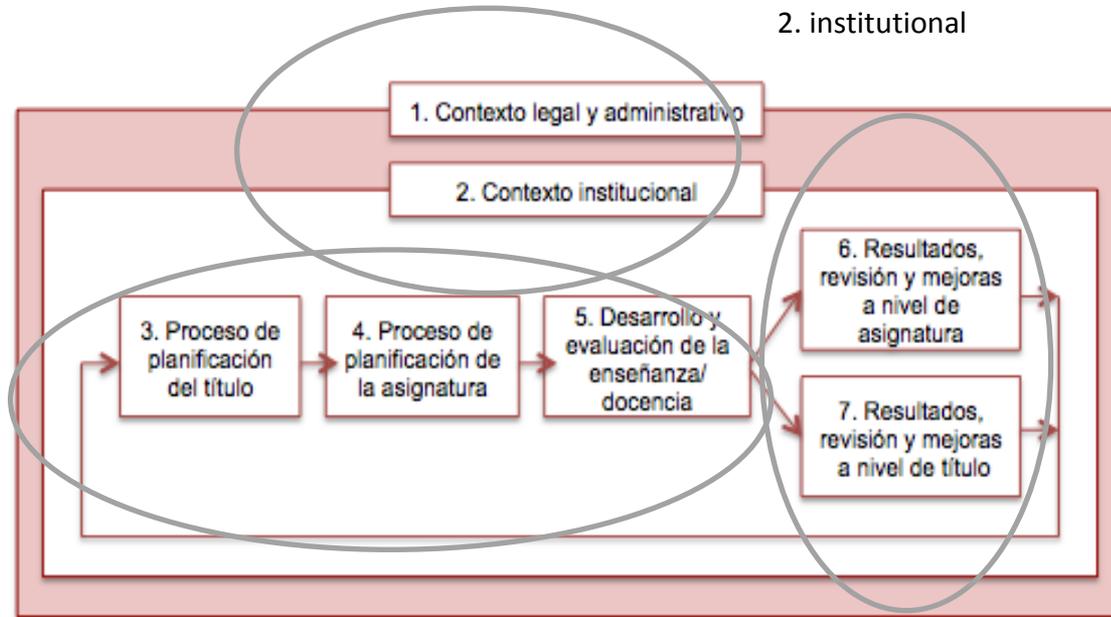
Process: 3. degree planning
4. subject planning
5. teaching/learning development and assessment

Products: 6. results, subject revision and improvement
7. results, degree revision and improvement

Dimension 1: Legal and administrative context	
Criteria	**Indicators**
1.1. There is current legislation that promotes ==Higher Education innovation incorporating Competence-Based Learning== and/or student-centred learning.	1.1.1. The need to promote a change in Higher Education oriented towards Competence-Based Learning is justified.
	1.1.2. The innovation process focuses on student-centred learning.
	1.1.3. University autonomy is recognised.
	1.1.4. The importance of collegiality among teachers is emphasised.
	1.1.5. Harmonisation and recognition of the teaching cycles in higher education is regulated according to competences (graduate, master and doctorate) (framework for degrees/qualifications).
1.2. There is guiding legislation ==on how to elaborate a CBL-based degree==.	1.2.1. It is specified that learning objectives must be formulated in terms of competences.
	1.2.2. Generic (transversal or key) competences and course-specific competences are differentiated.
	1.2.3. The importance of student-centred methodologies is specified.
	1.2.4. The need to define student work time, which is translated into a credit system, is established.
	1.2.5. The need to assess by competences is specified.
1.3. Higher education institutions and education administration or delegated agencies/organisations have at their disposal ==mechanisms or procedures to certify and supervise degrees== including references to CBL.	1.3.1. There are external official certification mechanisms and improvement at university, degree and teaching levels from Education Administration or delegated agencies/organisations.
	1.3.2. A system of internal guarantees and improvement at university, degree and/ or teaching levels is demanded.
1.4. There is ==government support== available (financing, training, teaching innovation and improvement, incentive programmes…) ==for implementing CBL==.	1.4.1. Teacher training for implementing CBL is financed.
	1.4.2. Projects for the design and introduction of CBL-based degrees are financed.
	1.4.3. Research projects and/or university teaching innovation for CBL implementation are financed and/or encouraged.
	1.4.4. Necessary human and material resources for the changes involved in CBL implementation are financed.

Dimension 2: Institutional context	
Criteria	**Indicators**
2.1. ==CBL is present in institutional documents== (policy and strategy and pedagogical model).	2.1.1. Reference is made to CBL in the mission, vision and strategic plan.
	2.1.2. The university has a defined teaching and/or training model that includes CBL.
	2.1.3. The university defines key competences for students to develop.
	2.1.4. Institutional documents referring to CBL are on the public website.
2.2. There is a ==support organisational structure for CBL==.	2.2.1. In the vice-chancellor's/governing team there must be at least one person responsible for CBL implementation.
	2.2.2. At institutional level, there is a technical office/unit that promotes and provides support for CBL.
	2.2.3. The centres/faculties have a structure to encourage and organise CBL.
	2.2.4. Administrative processes and services are in line with CBL..
2.3. There are guidelines for developing ==mechanisms for the approval and supervision of CBL-based degrees and teaching guides==.	2.3.1. The institution has formal mechanisms (procedures and protocols) to develop CBL-based degrees.
	2.3.2. The institution has formal mechanisms (procedures and protocols) for the approval, control and periodic revision of CBL-based degrees.
	2.3.3. The institution has formal mechanisms (procedures and protocols) for the development of CBL-based programmes and teaching guides.
	2.3.4. The institution has formal mechanisms (procedures and protocols) for the approval, control and periodic revision of CBL-based programmes and teaching guides.
2.4. There are ==procedures for the selection, development, assessment and/or certification of teachers== and administrative and services staff.	2.4.1. There are CBL-based procedures for the selection, development, assessment and certification of teaching staff.
	2.4.2. Informative or working meetings/ awareness workshops/ courses on CBL are held.
	2.4.3. The university has mechanisms to detect teaching staff needs for the adequate development and improvement of its degrees.
	2.4.4. The university has mechanisms to detect administrative and services staff needs for the adequate development and improvement of its degrees.
	2.4.5 The university promotes and supports teacher participation in innovation and/or research in CBL.
	2.4.6. The university offers training possibilities to its teaching staff with a view to carrying out those improvements identified as necessary for adequate CBL implementation.
	2.4.7. The university offers training possibilities to its administrative and services staff with a view to carrying out those improvements identified as necessary for adequate CBL implementation.

Dimension 3: Degree planning process	
Criteria	**Indicators**
3.1. There is a studies plan (curriculum) that defines the competences the degree develops and explicitly states the ways the subjects making up the degree are going to progressively work on them (or other equivalent units).	3.1.1. There is a person or a constituted commission responsible for academic affairs in order to develop, coordinate, monitor and assess the degree.
	3.1.2. The justification and orientation of the degree is based on a systematic analysis of both antecedents as well as the needs and proposals expressed by the different interest groups: academics, students, graduates, employers and other agents in the field.
	3.1.3. The professional-academic profile of the degree has been defined, establishing its professional identity, the functions for which it is prepared and the fields where it is to be carried out.
	3.1.4. The learning objectives of the degree are defined in terms of the competences it develops.
	3.1.5. The degree explicitly differentiates between the generic competences and the specific competences to be worked on.
	3.1.6. The degree establishes how teaching is to be organised (by subjects or other equivalent units) and identifies each of them, and assigns them a volume of student work both inside and outside the classroom (e.g. credits)
	3.1.7. There is a map of competences (or equivalent procedure) that plans the progressive development of the degree competences throughout the subjects or other academic units composing it, thus demonstrating that it is an integrated formative/educational project.
	3.1.8. The degree establishes the use of active methodologies that situate the student in the centre of the learning process and are in accordance with the type of competences it intends to develop.
	3.1.9. The degree establishes the use of assessment methods and techniques enabling the evaluation of the degree of success of competence achievement throughout the learning process and as the final result of the same.
	3.1.10. The degree provides a mechanism for the coordinated collegiate assessment of the achievement of the competences it establishes.
3.2. Teachers on the degree programme plan the coordinated development of the competences in their respective subjects, or equivalent units, through joint procedures and decisions.	3.2.1. The person responsible for the academic side of the degree establishes and/or sets in motion the necessary mechanisms (meetings, documentation) to ensure the coordinated planning of the teaching of the degree among the subjects (or equivalent units) integrating it.
	3.2.2. The teachers and people responsible for academic affairs agree on and define the level of development of each of the competences attributed to each of the subjects.
	3.2.3. The teaching-learning and assessment methodologies to be used in the subjects (or equivalent units) are discussed and agreed upon in order to diversify and coordinate the learning scenarios proposed to students.
	3.2.4. Learning and/or assessment activities are planned together among different subjects that favour a global integrated development of the competences.
	3.2.5. Distribution of student work times within each of the subjects is discussed with a view to favouring continued balanced work.
	3.2.6. Assessment of the level of achievement of the degree's competences is coordinated and transversal (horizontal and/or vertical).
	3.2.7. A record is kept of the decisions taken with regard to coordination.

Dimension 4: Subject planning process	
Criteria	**Indicators**
4.1. The contribution of the subject to the degree profile is described and competences are defined.	4.1.1. The teacher contextualises and justifies the subject (or equivalent unit) describing its contribution to the academic-professional profile of the degree.
	4.1.2. The teacher clearly sets out the previous requisites for students and the relation of the subject to the others in the degree.
	4.1.3. The programme and/or study guide define the generic competences to be developed in the subject in accordance with the Degree's Competence Map, and specify the elements to be worked on.
	4.1.4. The programme and/or study guide define the specific competences to be developed in the subject, in accordance with the Degree's Competence Map, and specify the elements to be worked on.
4.2. Appropriate teaching-learning strategies for the development of competences are detailed.	4.2.1. Teachers design a teaching strategy coherent with the competences they aim to develop, and which is in accordance with the principles of autonomy and student learning significance.
	4.2.2. Teachers detail the activities to be carried out and the calculated time for completion, according to the principles of autonomy and student learning significance, with the subject's global time being respected (or assigned credits where applicable).
	4.2.3. Teachers explain in detail the documentation and support resources that are going to be used for the correct monitoring of the subject and the completion of the planned activities.
	4.2.4. Teachers establish the procedures, times and spaces to monitor, tutor and orientate student learning.
4.3. An assessment system is defined which is appropriate to the competences the student is developing. (formative and summative assessment).	4.3.1. Teachers formulate learning results and/or indicators that will be used to assess and provide feedback to students in the development of their competences.
	4.3.2. Throughout the process and at the end of the same, teachers choose the techniques and instruments which are going to be used to gather the information relevant to the learning results and/or chosen indicators.
	4.3.3. Teachers define and detail how final assessment is to be attained (the weight of each competence/indicator in the final grade), which has to reflect the level of the development of the students' competences throughout the process and at the conclusion of the subject.

Dimension 5: Teaching/learning development and assessment	
Criteria	**Indicators**
5.1. Active methodologies and appropriate resources (resources, ICT, activities, spaces) to develop the subject's competences.	5.1.1. The teaching conditions for teaching the subjects (number of students, spaces, classrooms) are appropriate for the type of subject and the competences to be developed.
	5.1.2. The teacher informs students of the generic and specific competences that the subject is to work on, the methodologies to be used and how the competences are to be assessed.
	5.1.3. The methodologies used are coherent with the competences to be developed in the subjects.
	5.1.4. The methodologies used encourage the active student role in the teaching/learning process.
	5.1.5. Varied methodologies are used (PBL, cooperative learning, case studies) and/or different techniques (simulation, debates, competitions, role-playing).
	5.1.6. Proposed activities are contextualised and real (authentic tasks).
	5.1.7. ICT is used to support the teaching/learning process.
	5.1.8. Teaching resources are adapted to the teaching/learning methodologies.
5.2. The teacher uses tutorials to guide and to support the teaching/learning process.	5.2.1. Teachers orientate and accompany the students throughout the teaching/learning process.
	5.2.2. For the appropriate development of the subject, teaching tutorials (subject monitoring) and guidance tutorials (personal and professional orienting) are integrated.
5.3. Development of student competences is assessed using appropriate criteria and techniques.	5.3.1. Assessment is coherent with competences to be developed in the subjects.
	5.3.2. Both generic and subject-specific competences are assessed.
	5.3.3 A variety of assessment techniques and instruments are used.
	5.3.4. The assessment process is transparent: students know the instruments, criteria, indicators and weightings of the assessment.
	5.3.5. There is formative assessment which guides students to adjust their learning according to the feedback received.
	5.3.6. Students know t when formative and summative assessment take place.
	5.3.7. Feedback received by students is quantitative and qualitative.
	5.3.8. ICT is used as support for assessment.
	5.3.9. Different agents participate in assessment: teachers, colleagues and students themselves.

Dimension 6: Subject revision and improvement	
Criteria	**Indicators**
6.1 Teachers analyse the results of learning and of their teaching, and propose and develop actions to improve.	6.1.1. Teachers reflect on their teaching by analysing the relationship between the level of the competences attained by their students and the teaching and assessment methods used.
	6.1.2. Teachers reflect on the assessment resulting from different sources that intervene in their teaching process: students, colleagues, those responsible for academic affairs and they themselves.
	6.1.3. Teachers identify strong and weak points in their teaching.
	6.1.4. Teachers identify changes and concrete changes for students to improve competences learning for the following year.
	6.1.5. Teachers document their reflections and contrast them with their superiors or within their department.

Dimension 1:					
Criteria	**Indicators**	**Accomplishment**		**Evidences**	**Observations**
		Yes	**No**		
1.1.	1.1.1.				
	1.1.2.				
	1.1.3.				
	1.1.4.				
	1.1.5.				
1.2.	1.2.1.				
	1.2.2.				
	1.2.3.				
	1.2.4.				
	1.2.5.				
1.3.	1.3.1.				
	1.3.2.				

Conclusions

Integral model, not found in the literature

Integrates contex, process and products (results) – 7 dimensions, 18 criteria, 96 indicators

Reference point

Adaptable to the institutional context and agreed in a participative way

Dynamic, open to changes and updates

Quantitative, qualitative and mixed instruments could be developed from it

It should be tested with university teachers and managers

Thank you !

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