

Chapter 9 bis.

A critical reflection on “Teaching-and-learning” in Higher Education and on “Modularization”

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Presentation

This chapter is meant, as most HAQAA Materials, to be always “work in progress”, subject to the discussion and criticism it intends to promote, and to be re-elaborated, developed and complemented as a result. Its main purpose is different from that of most other chapters of the Materials: it aims to stimulate reflection by bringing forward controversial ideas and arguments whose sharpness could be diminished if presented in another form. It comprises two parts, one on the approach to Learning (and how teaching can contribute to it) and a second one on Modularization. There are advantages in presenting them together, as the arguments on Modularization can serve to give some concrete flesh to the arguments on Learning, which could appear to be too abstract or lacking ways of implementation.

The chapter can be used separately from the rest of the Materials. But can also be used as a complement to chapter 9 of the HAQAA Materials on African Regional and Continental Integration in Higher Education, *Curriculum, Learning and Teaching*, by Charmaine B. Villet.

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FIRST PART: INNOVATING THE WHOLE APPROACH TO LEARNING IN HIGHER EDUCATION

1. Introduction: Criticizing the teaching-and-learning / learning-and-teaching approach

Much too often, teaching and learning are presented and discussed as if they were the two sides of the same coin (whatever the order of the words ‘teaching’ and ‘learning’). This approach is completely wrong:

- Most, and probably the more important part, of our learning is not the result of any teaching process: this goes from the learning of our mother language when we are a child to what we learn on our own, by studying and reading materials or at work by learning-by-doing, through what we learn from colleagues and friends.
- What matters for society is what people learn, not what they are taught.

And, finally, the teaching-and-learning approach entails the danger of conceiving the learning process as something linear, which has a beginning and an end, while, in fact, the (good) learning process is in spiral: its broadening leads to a revision of what has been learned before and to an improvement/deepening/enhancement of it. This implies that the teacher must always remain a learner (a pretty obvious idea that many teachers tend to forget)⁽¹⁾.

Putting the right question: what teaching for what learning

So, the right approach is not that of establishing a bi-univocal relation between teaching and learning (‘bi-univocal’ in the sense that to each piece of teaching corresponds a piece of learning and vice versa) but that of discussing **what teaching for what learning**: what learning can be facilitated by the teaching activity (which are the pieces of learning that, through teaching, can be better obtained and with a lesser use of productive resources than by other means?).

When discussing this question, we should never forget a first element of answer that lies outside the purpose of this Chapter: One of the main objectives of education (in all educational levels) is ideological indoctrination, be it considered positively (as an essential instrument of transmission of the main social values) or negatively (as an essential instrument for achieving the conservation of the existing social, economic and political order with its injustices and inequalities).

Whatever the answer to that question, a conclusion must be necessarily accepted: the role of the teacher is not (this is not a prescription but a fact) that of being a monopolistic provider of knowledge; learners have a very wide of sources of knowledge at their disposal, which they use (and should use) all the time and that, very often, are more effective than any teaching.

It is much more helpful to look at the (good) teacher as a guider/helper/tutor that helps learners to acquire knowledge. In what follows, I’ll use the terminology “teaching/teacher” and “learning/learners” when referring to the two respective generic activities; and I will use “lecturer” and “student” when referring to roles in the standard HEIs institutional framework,

1. So, this goes much further than asserting the need for long-life-learning in the sense of acquiring new knowledge. It means that we never end up “fully knowing something”. And if someone objects saying that we “fully” know that “ $2+2 = 4$ ”, he or she should study a good text on the foundations of mathematical logic in order to discover that this is not true: we don’t know fully what is entailed by that identity.

The Higher Education framework

This chapter concentrates on Higher Education (HE). So, what teaching for what learning in HE? To discuss this question, it is useful to begin with the traditional distinction of three main University functions: Teaching, Research and Community Service – or any similar concept, including in particular the transfer of knowledge outside the established teaching channel-. In this context, “teaching” means teaching in formal/institutionalized programmes; and “Community service” can include specific formative activities not included in formal programmes.

This discussion is usually muddled because some very essential facts are usually not considered:

- Many Universities (and HEIs in general) do not have the resources needed to carry out meaningful research (even less, research that aspires to reach “excellency”).
- Many lecturers who are good at research are bad teachers; and, conversely, there can be HE lecturers who are good at teaching but who are not researchers.
- A HEI can be very good at transferring knowledge (and serving the community that surrounds them) even if it is not a producer of new knowledge through research.
- Staff in HEIs (including in particular lecturers and researchers – and lecturers/researchers) are not necessarily of the best possible quality. A good number of the best graduates are attracted by professional opportunities outside the University and do not enter the academic career (in particular in the last decades and probably in the future). Therefore, we must discuss HE policy assuming that lecturers/researchers will, on average, not be “excellent”; they will be, at most, as in any profession, “normal”. This consideration is extremely important in the context of the “teaching-and-learning” discussion but is not dealt with in most literature on HE. It strengthens the soundness of the view that, as lecturers are not the best world specialists in their disciplines, they should remain (but in actual fact do not look at themselves) as much learners as they are teachers.

This is why the first University function (teaching) can and must be studied in its own, recognizing its linkages with the other functions but without making it a dependent variable of them, in particular of the second - research-. This would change if the second function was restated, or redefined, as it should, as “Research and **Innovation**”. Indeed, promoting innovation and an innovative spirit does not require the huge amount of resources that research (at least most areas of research) requires, while it certainly gives a purpose to teaching. Putting innovation at the center of HE activities is, furthermore, a very promising approach that would embrace the three traditional functions or missions of Universities (as the promotion of innovation is probably the best way to provide “Community service”). The discussion of this argument exceeds the scope of this chapter and deserves a Chapter and an analysis on its own. This further analysis should cover the action of HEIs both at the domestic/national level and at the international one, and contribute to the empowering of Universities as development agents.

2. The traditional conception: the focus on teaching, and teaching for a diploma

Teaching for a diploma with professional effects

For centuries,⁽²⁾ in, mainly, European continental Universities,

- **the focus has been on teaching⁽³⁾, and the main actors have been the lecturers;** they decided what had to be learned (i.e. what they were teaching) and how (attending their lectures and studying their textbooks).
- And **courses (the teaching units)** were components of a **curriculum** that leads to an **academic diploma** that has **professional effects**.

The best examples of this approach are the organization of well consolidated diplomas leading to professional effects as they were organized when I studied in the second half of the 1960s in Spain. The situation was (and is) quite similar in most European Continental systems (and, I think, in most African systems); and not so much in the Anglo-American, where there has been, historically, a much greater dissociation between academic diplomas and habilitation for professional activities:

- You were enrolled in something that made sense because it combined the academic diploma and the professional recognition.
- This diploma was the object of appropriation by a corporation of academics that designed a curriculum and distributed it in components: the courses (these academics controlled also, in practice, State regulation of curricula when it existed). Courses made sense because, **put together**, they allowed you to get the diploma with professional effects: What would have been the meaning of the courses of Civil Law (I) or Criminal Law (I) if
 - they were not followed by Civil Law (II), (III), (IV) or by Criminal Law (II)),
 - and they were not a constituent of the diploma?

None whatsoever. The same argument applied to most other diplomas (from the different “Chemistries” (Organic, Inorganic, Analytical, etc) in Faculties of Chemistry, to the “Microeconomics I, II and III” and “Macroeconomics I, II and III” in the Faculties of Economics.

A very resilient conception

This conception came under question with the introduction of a distinction between “compulsory” courses and “optional” courses, a distinction contested by the academic corporation unless proved (or achieved) that the new combination of compulsory and optional courses guarantees to professors the same career (and income) outlets as the previous one.

The introduction of the credit system entails a further weakening of that conception as courses became (or, better, can become) not only the components of one diploma but components of different diplomas.

2. Not so much when the Universities were born in the Middle Ages and their conception as “Universitates”, i.e. Communities of scholars, as well students as professors, was much closer to reality than in the XIXth and XXth centuries

3. I certainly accept that a great number of scientists have been University lecturers. But it must also be accepted (and always kept in mind) that, since the XVII century, many (in fact, most) of the founders of social studies, life sciences, and natural sciences and technology who have changed our vision of the world have had professional careers in the margin, or completely outside, University life. Begin with Leibniz, the advisor of, and diplomat for, German prince-electors, and Newton, unrecognized as an undergraduate and finally abandoning the U. of Cambridge three decades later to work for the Royal Mint; and go on to Hobbes, Locke and Adam Smith, the young aristocrat preceptors; Lavoisier, the lawyer and tax collector creator of the modern chemistry; the landowners/merchants/lawyers/politicians who wrote The Federalist; the French “savants” who measured the meridian of the Earth and defined the meter; David Ricardo the businessman worried by the tendency to a decreasing rate of profit; Mendel the monk inventor of genetics; Marx the lawyer and political activist; Darwin the traveler; Freud the physician; Max Weber who wrote most of his main work after having given up his position as University professor; Einstein's uneasy academic life; J.M Keynes' struggle to criticize and finally abandon (because he had internalized his work as a public civil servant and a high policy adviser) what he and others had taught in Cambridge; to end up with the brilliant software (and hardware) creators and developers of modern times and the discoverers of the first vaccine for the COVID.

The Bologna Process can and must be the subject of criticism, but it certainly struck a blow to this conception by,

Emphasizing the distinction between competencies and skills / abilities (in whatever terms), a distinction that allows to question whether the competencies acquired in the different courses make sense in term of the abilities you acquire. A distinction that, in practice, was very well known by Law students in my time, for example. We were well aware that most of what we studied in the different courses of the Law curriculum (the competencies, in principle) was completely useless (and could be and was indeed very quickly forgotten because it didn't confer us any ability) besides allowing us to get the academic diploma with professional effects. On reflection after many years of different professional lives, we have discovered that the only really important thing we learned was not taught in any course: an understanding of “what is Law” and how it operates and, in particular, what (right, but also too many times wrong) use you can make of it.⁽⁴⁾

- And facilitating the dissociation between academic diplomas and “official” diplomas with professional effects.

However, the Bologna process, launched by some EU Member States and then extended to all of them and to countries outside the EU, has been merged with the ECTS system, launched by the European Community (now the European Union – EU-), which predates it and which was not conceived as an instrument for curricula reform but for mobility. As a result of the merger, the Bologna process has become, to the eyes of many, just “an accounting system”. This is how a Secretary of Education in a very important EU Member State defined me the Bologna Process a few years ago. And, much more importantly, this is how it is used by many HEIs officials and authorities. Further, experience shows that the professorial corporation is extremely well endowed to translate into different languages the same academic practices. A comparative study that still remains to be carried out could and should analyze the reforms introduced in the Bologna Process framework from this perspective: how much real reform lies behind the formal changes in the organization (or better: the description) of the academic programmes?⁽⁵⁾ ⁽⁶⁾

Under this traditional, so resilient, approach, the credits (looked at from the students perspective) have the same meaning as the former courses on specific discipline: allowing students to get a degree that enables them to enter the labour market.

4. A bit like the definition of “culture” as what you retain after you have forgotten all what you have been taught.

5. Despite what is said in the literature, in most European countries and European HE institutions, for example in Spain, the Credit System is based, as the old system, not on “learning requirements or objectives” (this is simply the dressing) but on the number of teaching hours for each course compared to the number of hours lecturers must teach in order to fulfill the requirements of their contract or appointment, etc (this is how lecturers – and students ! - do discuss about credits).

6. Very valuable publications do exist, and the best example is, probably, the series of Trends Reports from the EUA (in particular the 2018 Report: <https://eua.eu/downloads/publications/trends-2018-learning-and-teaching-in-the-european-higher-education-area.pdf>). However, they do not intend to be the thorough study I am referring to and are based not so much on the reality of the facts but on what Universities say about themselves..

3. The innovative conception: focusing the learning process; what to learn (and how) in higher education and how can a new approach to teaching contribute to it?

Introduction

A completely new approach can and must be developed by focusing the learning process. It is certainly not new, as it has many precedents since Socrates' time in ancient Greece to the excellent “problem-solving” approach to learning implemented in Maastricht University in the Netherlands, but in practical and political terms it can be labelled as ‘new’ because it runs against the traditional approach centered into teaching that, even if it has been weakened and questioned, still prevails in Higher Education Institutions (HEIs) because of the power exercised in them by the professorial corporation. So, it must be discussed much more from the perspective of a reform to be introduced than as something that can be studied from experience.

The new approach goes much further than most interpretations of the fashionable, and in principle welcomed, “student-centered” rhetoric, which still remains anchored on the “teaching-and-learning” approach (simply reversed as “learning-and-teaching” or “student-centered learning and teaching”)^{(7) (8)}. Just to begin with, the new approach must certainly distinguish between lecturers and students because these are two distinct social roles; but these two roles should become instruments of a single process and objective: that of learning (not only by students but also by lecturers). And even the distinction between lecturers and students could be questioned if one recalled the very old practice of using advanced/older students as tutors for younger ones, so that learners become teachers^{(9) (10)}.

The new approach takes as point of departure a very simple idea that, meaningfully, is absent of most literature on the topic: students do not learn because they are taught; they learn because (and if) they study: teaching is simply one of the instruments for their study. And students who learn more do so because, at equal levels of innate and developed intelligence, they work harder at studying the different materials at their disposal, whether provided by the lecturers or not. And the students who work harder, do so because they have a stronger motivation. If someone concludes from this argument that the best possible reform of HE is the one that increases students' motivation (and rigour and self-discipline), I would quite agree. In any case, increasing students' motivation and rigorousness and self-discipline should remain an essential objective of any Higher Education reform.

7. The European Students Union (ESU) has published a series of studies that tackle the problem. The main one would be “Bologna with Students Eyes 2018”. <https://www.esu-online.org/publications/bologna-student-eyes-2018-2/>. However, its content on “student-centered-learning” (chapter 11 of the study) is surprisingly poor.

Much more interesting are two quite recent publications (May and November 2020 respectively) by Klemenčič, M., Pupinis, M., Kirdulytė, G. (2020). ‘Mapping and analysis of student-centred learning and teaching practices: usable knowledge to support more inclusive, high-quality higher education’, NESET report (<https://www.esu-online.org/?publication=mapping-and-analysis-of-student-centred-learning-and-teaching-practices-usable-knowledge-to-support-more-inclusive-high-quality-higher-education>) and ‘European Higher Education Area: Challenges for a New Decade’, (<https://link.springer.com/book/10.1007%2F978-3-030-56316-5>), edited by Adrian Curaj, Ligia Deca and Remus Pricopie. Readers interested in an academic analysis of the state-of-the-art on the topic must refer to it. However, their approach is quite different from that of this Chapter.

8. In the second of these publications (‘European Higher Education...’, the chapter ‘Re-Thinking an Educational Model Suitable for 21st Century Needs’) Tim Birtwistle and Robert Wagenaar give a very comprehensive account of recent literature and of the achievements in the framework of the TUNING initiative. But the authors conceive learning as something that can be ‘provided’ (sic); therefore, this approach risks simply enlarging the old ‘teaching-and-learning’ approach to a ‘provider of learning-learner’ approach, in which the dominant role will remain on the side of the so-called provider of learning.

9. The reader can find in Internet a nice very short piece on the history of this: <https://www.history.com/news/in-early-1800s-american-class-rooms-students-governed-themselves>

10. The best experience in my too long teaching career was the introduction of this in the framework of my course of Political Economy. By convincing some of the best students of the previous academic year to become tutors for next year's students of the next, I reduced the number of my “magistral” teaching hours, and I divided the class in groups of around 12-15 students who held weekly sessions with the tutors, who knew well from the previous year what was the content of my lectures and were tutored by me before they tutored their younger fellow students. The experience (which had to be discontinued because of lack of interest in the University authorities and among most of my colleagues, who found the experience outrageous), was a great success, both for the new students and for the students-turned-lecturers.

Assuming that students remain normally enrolled in HEIs for a relatively long period (three to five years), the new approach has to give an answer to two questions:

- What should HE students learn during this rather long time-period?
- How, all through this time-period, must the lecturers' activity be organized in order to contribute to this learning process?

What should HE students learn during this rather long period of time?

THE ECONOMIC/SOCIAL/POLITICAL FRAMEWORK:

Explicitly or implicitly, this question has a framework whose discussion lies outside the scope of this chapter but has to be mentioned. How must education, including HE,⁽¹¹⁾ be analyzed from an economic and political point of view:

as an investment, as it is assumed by the theory of human capital, to be minimized by reference to the expected return?⁽¹²⁾ or

- as an individual and collective item of consumption that, certainly, competes, in terms of allocation of resources, with other possible items of consumption, but that constitutes an end in itself, so that, in a period of economic growth, the drive for its extension and improvement is endless? This is the framework in which I place my analysis.

THE VERY DANGEROUS CONTRAST BETWEEN ACADEMIC AND LABOUR-MARKET REQUIREMENTS

In the discussion of that question, a contrast is established, quite often, between academic quality and labour-market/business requirements. Again, this chapter is not the place for a detailed discussion of it. However, some criticism of this approach is indispensable:

- First, it is normally based in a vision of education in terms of an investment to be minimized (a vision just already criticized).
- Second, it is based in a very narrow view of the labour-market and business requirements that does not take the standpoint of really good companies and public administrations, which know that what is needed for the day to day activity can be easily learned at work and what matters is the capacity to innovate (and, previous to this, to continuously learn and produce new knowledge).
- Third, and this is the really important criticism from our perspective, it is based on a complete misunderstanding of what is “academic quality”, because as we shall see in what follows, it looks at it at from the (bad) lecturers' very narrow perspective.

A PROBLEMATIC TENTATIVE AND VERY SIMPLE ANSWER...

The right answer must necessarily be tentative and problematic for two reasons:

- First, it is very difficult to give an answer that applies to the extremely varied set of programmes taught in HEIs.
- Second, the answer must be adapted to very changing conditions both in terms of the surrounding environment for HE activities and of its internal organization (the vast effects of the generalization of the use of ITCs, as a main example).

With these two provisos, I think that some agreement can be found around the following four very simple ideas:

11. Of course, the same discussion applies to health promotion-and-care and to most other domains where there is an active public policy,

12. As this is not the place for the discussion, I will simply raise the main question whose impossible answer undermines the whole construction of human capital theory: what is the return and how you measure it, considering in particular the huge amount of positive externalities generated by education?

1. The level of knowledge in HE must be higher (or deeper, if you prefer) than that predominant in secondary education (which can certainly evolve and, let's hope, improve).
2. The knowledge to be acquired by the students must combine some degree of generality and some degree of specificity.
3. And this combination is what allows graduates to both a) being able to apply in the work place the specific knowledge they have acquired and b) being versatile, adaptable to new labour demands, and innovative, because they have a relatively broad knowledge base.
4. But the acquisition of knowledge is not sufficient: students must metabolize the urge and the drive and the desire of keeping learning all along their life.

These are also the four characteristics that innovative firms and public administrations (the ones we must use as reference) request from the HE graduates they employ. Therefore: academic quality and labour-market/business requirements coincide and are not opposed.

...BUT, SEEMINGLY, A REVOLUTIONARY ANSWER

But this is not what traditional academic organization, mainly in many continental European countries – and, maybe, in African countries that more or less copy them-, is focused into:

- Characteristics 3 and 4 are simply left aside: the only thing that matters is what students learn in the courses.
- All courses are equally important: what matters is not whether they are “more general” or “more specific”: they are courses, all of them in the same footing. Students are meant to know everything about the content covered by the courses, an objective impossible to reach in a lifetime, much less in four or five years. The risk is that, instead of knowing everything of everything, the students end up not knowing well anything.

How should the lecturers' activity be organized under this new approach?

Under the new approach, not all courses (in the sense of pre-organized units of teaching) play the same role and stand on the same footing:

- Some courses are meant to help students to acquire the specialized knowledge HE is meant to provide: other courses are meant to help students to acquire the broad basis of knowledge that HE must also provide and that will allow them to be versatile and open to new demands and paths of academic and personal development.
- Some courses will be more oriented to the acquisition of competencies; some other, to the acquisition of abilities.
- The length of the courses will also be very variable, depending on their content: one second's thought suffices to discover very easily that, from a learning perspective, having to fit learning into predetermined units of standard length is completely absurd. **If it is not absurd is because, in actual practice, and as I have already pointed at, the courses duration do not depend so much of their objective and content but of the need to justify “the number of teaching hours” that lecturers must do in order to comply with the conditions of their contract or appointment.** This is an essential consideration, which is the ABC of the academic profession and of HEIs management and governance but which, again very meaningfully, is not present in standard literature on the topic. This is why I underline it.
- And, with some imagination coupled to practical University experience, more distinctions could be introduced.

New ideas on Curriculum, Teaching and Learning coming from Africa.

Prof. Charmaine Villet (Faculty of Education, University of Namibia) has contributed a chapter to the HAQAA Materials on Regional and Continental Integration in Higher Education,⁽¹³⁾ a chapter on Curriculum, Teaching and Learning that brings to the debate extremely valuable ideas and summarizes some previous work by African experts. I refer the reader to it and will simply reproduce some of its content:

The curricula of most African universities continue to follow the traditional approach of accumulation of separate courses and credits, leading to a fragmented curriculum at the expense of a holistic, coherent programme. This curriculum approach is no longer able to meet the current demands of society which requires graduates to solve complex problems, using creative, innovative and ethical⁽¹⁴⁾ thought and practices.

As teaching and learning excellence become more and more equated with the pursuance of credits that are devoid of meaningful effect, one has to wonder what the impact of all of this is on the attainment of learning competencies that will lead to higher education transformation and the transformation of African society and economies.

This chapter argues for embracing a Transformation approach to curriculum thought and practice to attain the “Africa we want”. The question “Who will lead Africa into a bright future?” requires universities to reflect on the challenges facing the continent, and to define what kind of citizens will be able to handle the challenges most effectively. After all, in the words of Barnett (2017), the task of an adequate philosophy (approach) of higher education is not merely to understand the university or even to defend it but to change it⁽¹⁵⁾. The chapter, therefore, proposes a transformation paradigm to effective qualitative change in African higher education that can lead to the sustainable transformation of this sector.

...

Historically, the Africanization of universities was part of a broad decolonisation movement at the beginning of the post-independence era in the 1960's in Africa. Throughout the following decades, the concept of “Africanization” in higher education became tied to the notion of the regionalization of African higher education.

...

The common conceptualization of Africanization remains elusive in AHE.

...

There are those who believe that African universities will be better served by focusing on their national, sub-regional and regional development needs and problems rather than to be stuck with an Africanization project. These scholars are of the opinion that Africanization is silent on the pertinent issue of transformative pedagogy that could effectively deliver courses that will develop the skills, knowledge and dispositions that African youth need for personal growth and social, political and economic development.

These scholars had the following to say:

Proponents of the Africanised university are over-consumed with the politics of decolonization.... Deep-seated corruption in government, human rights abuses, tribalism, stagnant technology, low agricultural productivity, the subjugation of women and incompetent leadership are equally important development challenges plaguing the African continent. Attempts to blame these issues on colonialism absolve Africans from any responsibilities for their own actions and inaction (Fredua-Kwarteng, E. & Ofosu, S., 2018, p. 3).

13. GIVE EXACT REFERENCE...

14. Bringing Ethics into the discussion seems to me of paramount relevance...

15. Doesn't this remind the reader of another similar sentence written around 180 years ago and published for the first time in 1888?

The proponents of the transformative approach to curriculum planning, development, implementation and evaluation posit that the most profound learning takes place when learners are actively involved in their own learning through experiential activities, projects and problem-solving. This way of learning encourages them to discover knowledge, co-create new knowledge/s, rather than simply absorb knowledge given to them by a teacher. It encourages exploration, self-discovery, learning by doing and leads to innovation that can bring about the social and economic betterment of society. As African universities are called to play a more impactful role in their countries' social and economic struggles, there is a need to create graduates with the skills and attributes who can carry out the social and economic agendas. African higher education is thus in need to explicitly pronounce itself on which philosophical and ideological orientation will drive their transformation processes, and to give clear direction for their vision and mission implementation.

Indeed, it is great time to really listen to African voices instead of preaching to Africa ideas and thesis conceived in Europe or the United States, Canada or Australia whose value and effectiveness are very doubtful even in their country of origin.

SECOND PART: INNOVATING: THE ROLE OF MODULARIZATION

This is the framework in which a specific category of teaching-for-learning units (or “courses” if we use the word outside the logic I have just criticized) can be brought in in order to give some concretion to the new approach: “Modules”.

However, one must be very careful when talking about “modularization”. So, let's begin with a criticism of a rather standard presentation of “modularization” in a good article on the topic⁽¹⁶⁾ :

Modularization is based on the principle of dividing the curriculum into small discrete modules or units that are independent, nonsequential, and typically short in duration. Students accumulate credits for modules which can lead to the qualification for which a specified number of credit point is required. According to Hornby, as cited in Yoseph and Mekuwanint (2015) and Malik (2012), module is a unit of work in a course of instruction that is virtually self-contained and a method of teaching that is based on the building up of skills and knowledge in discrete units. Therefore, a module is a course that together with other related courses can constitute a particular area of specialization. Each unit or module is a measured part of an extended learning experience leading to a specified qualification(s) “for which a designated number, and normally sequence, of units or modules is required.”

In my opinion, this presentation

- does not answer the first question in the title to section C above and in the last paragraph of its Introduction: what should be the overall learning outcome of this cumulation of small units?
- and does simply skip the second question: it would seem that no “organization” of the lecturers' activity is needed; lecturers should act each one on his/her own, “giving points” that students must simply collect in order to attain the “ number of credit points” required to get a diploma.

I want to emphasize that Modules

- are not “courses” in the sense of pieces of a specific diploma and must be able to stand alone as pieces of teaching-and-learning; and,
- as a result, they can be integrated in a variety of different curricula, not only within a HEI but in plenty of them.

16. “The practice of modularized curriculum in higher education institution: Active learning and continuous assessment in focus” April 2019, Cogent Education 6, (DOI:10.1080/2331186X.2019.1611052) Wondifraw Dejene https://www.researchgate.net/publication/332741014_The_practice_of_modularized_curriculum_in_higher_education_institution_Active_learning_and_continuous_assessment_in_focus

However,

- It is very difficult to pre-define their content. The proof of the pudding is always in the eating: do they allow “something” to be learned?
- And lecturers must face the proof of the eating: are they able to provide in a more or less organized manner these units for learning?

In order to offer some ideas for further reflection (I recall that this is the chapter’s purpose), I’ll give some examples from areas that are familiar to me:

- There is a very specialized (and extremely boring) legal issue, in International Economic Law, that, however, is of an extreme importance for any professional (be it in Business, or in Law, or in Engineering or in Agronomy) dealing with the organization of the production and marketing process: Rules of Origin applicable to exports by importing countries. If students end up working in a firm and taking care of something related to “production-and-exports” they discover that, very often, the choice between alternative processes will be determined by the rules of origin applied in the market to which you export. Getting some knowledge of Rules of Origin by oneself is extremely difficult; however, a good module requiring no more than 8 hours of teaching-for-learning can achieve it (even 4 would be sufficient), saving to the student many hours and contributing to so-called “employability” much more than dozens and dozens of hours dedicated to teach the niceties of a standard course in Microeconomics. But the content of such a module is very specialized and many Universities will simply not be able to find a lecturer knowing the topic.
- I discovered in my career as University lecturer, in particular at postgraduate level, that, very often, chemists, pharmacists or engineers are much more aware of the importance (and the extent) of the regulation of economic activities than economists (and even lawyers formed in the tradition of private law). Chemists, pharmacists and engineers discover these importance and extent very easily at least in terms of intellectual property rights or regulation for the protection of environment. Economists, on the contrary, have great difficulties to understand the issue because it does not fit in the nice models they have been explained in the Microeconomics, Macroeconomics etc, courses they have been taught. A well-designed module on this topic complements the formation of many graduates much better than a few chapters/teaching/learning hours more or less in a specific area of Chemistry, Biology or Engineering.
- We all want to have ALL students environmentally minded. But how lawyers, economists or teachers of Humanities in secondary school learn something serious about this beyond the banalities/more-or-less-fake-news that they can find in social media? Shouldn’t Universities provide a module offering a better way to learn the fundamentals about the environment and the effects on it of human activity? I don’t know what the content of such a module should be but I am convinced that I would benefit from one conceived by someone who does know.
- Is it possible that, in the XXIst century, a Law student gets a diploma without knowing the fundamentals of accounting and whether profits are accounted for in the assets or the liabilities sheet of a balance-sheet? The answer is certainly “yes”, because this is the case in Spain and other countries. But it is a pathetic answer: students have had to swallow all the contents of courses in Civil, Criminal, Administrative, etc Law but have not found the need, or have not been told, to follow a well-designed module on Basic Accounting.
- All professionals (in fact, all citizens, in particular if they must consider themselves rather well educated) discuss about “Europe” meaning the European Union, (which, by the way, is completely different from Europe). If this is the case and the EU Treaties are so important in the lives of all EU Member States professionals, wouldn’t it make sense to introduce in their HE formation a good, nice, and not so long module explaining the fundamentals of EU law and policy (this module is perfectly possible: I have one of my own to be freely offered, conceived in the framework of an online modular training programme...)

- Shouldn't all HE students leave the University knowing what is money instead of relying in the sort of commonsense extremely misleading knowledge that circulates in conversations with family and friends? Here again, a module of my own is available on request.
- The examples could be multiplied.

Modules can be of a very variable dimension. Some can be very short, but, in particular at Master level, one can construct a modular programme of five or seven modules (in the sense just indicated), some of which can involve more hours of teaching and learning than standard courses.

3. Focusing on these units of learning has at least six great advantages:

- They can serve a very great variety of purposes and bridge the gap between so-called “academic” teaching-and-learning and so-called “professional” teaching-and-learning.
 - They can be used to build many different formation processes leading to very variable diplomas or accreditations.
 - **They can be very easily internationalized both from the perspective of lecturers and of students. This is extremely important, in particular in the post-COVID-19 era: Why should online courses with the same content be prepared in ALL Universities? If they are attended online, why do not Universities (and their lecturers) collaborate in producing ONE set of good modules that can be integrated (equally or differently) by the HEIs that participate in the collaborative process and could be used by (good) lecturers for the mentoring / guiding they must provide?**
 - In particular at master level, they allow to set up programmes that can be offered both in their entirety or “à la carte”, allowing people to follow only one or more modules and, again, bridging the gap between so-called “academic” teaching-and-learning and so-called “professional” teaching-and-learning.
 - They offer a great flexibility in order to insert new, innovative programmes within overcharged schedules of courses.⁽¹⁷⁾
 - **Lastly, but by no means the least, they can be used by lecturers to broaden and deepen their knowledge in specific areas of the topics they are meant to teach. They allow lecturers to learn from their fellow colleagues who know more and better than them. Modules organized at the international level, in a cooperative effort, can really re-create the community of lecturers and students, united all of them by, and in, the learning process.**
- 4. “Microcredentials”, a word and concept that have now become fashionable, enter into the picture as a particular type of modules. They are difficult to frame and discuss by those who still think that there is a clear divide between “academic” and “professional” training. But this is not the case when you accept the approach that teaching in HEIs is only one of the manyfold sources of learning, able not so much to compete but to cooperate with other sources. A well-conceived modular structure of academic Higher Education programmes has no difficulty in integrating microcredentials. However, we should not forget that “microcredentials” can often make more sense as an instrument of Service to the Community (the third HEI area) than as an element of the organized teaching area.**
- 5. Of course, the challenge under this approach is how to bring these “units of learning” under some coherent framework in terms of academic curriculum and institutional organization. The best way to face this challenge is by the collaborative effort between professors and HEIs. Most probably, at least in many curricula, modules and standard old-fashioned courses can co-exist for a long period of time.**

17. This is a very important advantage in practical terms that was pointed to me by prof. Philippe Gallusci, U. Bordeaux, in the framework of an Erasmus + CBHE project, VITAGLOBAL (2017-2020).

Summary conclusions

As a summary, I suggest concentrating on the following ideas:

1. Much too often, teaching and learning are presented and discussed as if they were the two sides of the same coin. This approach is completely wrong. So, the right approach is not that of establishing a bi-univocal relation between teaching and learning but that of discussing what teaching for what learning: what learning can be facilitated by the teaching activity (learning that, through teaching, can be better obtained and with a lesser use of productive resources than by other means).
2. For centuries, in, mainly, European continental Universities,
 - the focus has been on teaching, and the main actors have been the lecturers; they decided what had to be learned (i.e. what they were teaching) and how (attending their lectures and studying their textbooks).
 - And courses (the teaching units) were components of a curriculum that leads to an academic diploma that has professional effects.
3. This conception came under question with the introduction of a distinction between “compulsory” courses and “optional” courses, the introduction of the credit system, and the emphasis on the distinction between competencies and abilities (in whatever terms), and the dissociation between academic diplomas and “official” diplomas with professional effects. However, it is resilient: experience shows that the professorial corporation is extremely well endowed to translate into different languages the same academic practices.
4. A completely new approach can and must be developed by focusing the learning process. The new approach goes much further than most interpretations of the fashionable, and in principle welcomed, “student-centered” rhetoric, which still remains anchored on the “teaching-and-learning” (simply reversed as “learning-and-teaching”). Just to begin with, the new approach must certainly distinguish between lecturers and students because these are two distinct social roles; but these two roles should become instruments of a single process and objective: that of learning (not only by students but also by lecturers).
5. Assuming that students remain normally enrolled in HEIs for a relatively long period (three to five years), the new approach has to give an answer to two questions:
 - What should HE students learn during this rather long time-period?
 - How, all through this time-period, must the lecturers’ activity be organized in order to contribute to this learning process?
6. In order to answer the first question, some agreement can be found around the following four very simple ideas:
 - 1. The level of knowledge in HE must be higher (or deeper, if you prefer) than that predominant in secondary education (which can certainly evolve and, let’s hope, improve).
 - 2. The knowledge to be acquired by the students must combine some degree of generality and some degree of specificity.
 - 3. And this combination is what allows graduates to both a) being able to apply in the work place the specific knowledge they have acquired and b) being versatile, adaptable to new labour demands and innovative, because they have a relatively broad knowledge base.
 - 4. But the acquisition of knowledge is not sufficient: students must metabolize the urge and the drive and the desire of keeping learning all along their life.

These are also the four points that innovative firms and public administrations (the ones we must use as reference) request from the HE graduates they employ. Therefore: academic quality and labour-market/business requirements coincide and are not opposed.

7. A completely new approach is needed and very valuable ideas to conceive it come from Africa, a continent in deep need of strengthening the contribution of HE to its general development and to the solution of very wide societal needs. Under the new approach, not all courses (in the sense of pre-organized units of teaching) play the same role and stand on the same footing:
 - Some courses are meant to help students to acquire the specialized knowledge HE is meant to provide: other courses are meant to help students to acquire the broad basis of knowledge that HE must also provide and that will allow them to be versatile and open to new demands and paths of academic and personal development.
 - Some courses will be more oriented to the acquisition of competencies; some other, to the acquisition of abilities.
 - The length of the courses will also be very variable, depending on their content: one second's thought suffices to discover very easily that, from a learning perspective, having to fit learning into predetermined units of standard length is completely absurd. If it is not absurd is because, in actual practice, the courses duration do not depend so much of their objective and content but of the need to justify “the number of teaching hours” that lecturers must do in order to comply with the conditions of their contract or appointment.
 - And, with some imagination coupled to practical University experience, more distinctions could be introduced.
8. This is the framework in which a specific category of teaching-for-learning units (or “courses” if we use the word outside the logic I have just criticized) makes sense in order to give a partial answer to the second question under conclusion 5: “Modules”. Modules
 - are not “courses” in the sense of pieces of a specific diploma and must be able to stand alone as pieces of teaching-and-learning; and,
 - as a result, they can be integrated in a variety of different curricula, not only within a HEI but in plenty of them.
9. Focusing on these units of learning has at least five great advantages:
 - They can serve a very great variety of purposes and bridge the gap between so-called “academic” teaching-and-learning and so-called “professional” teaching-and-learning.
 - They can be used to build many different formation processes leading to very variable diplomas or accreditations.
 - They can be very easily internationalized both from the perspective of lecturers and of students. This is extremely important, in particular in the post-COVID-19 era: Why should online courses with the same content be prepared in ALL Universities? If they are attended at a distance, why do not Universities (and their lecturers) collaborate in producing ONE set of good modules that can be integrated (equally or differently) by the HEIs that participate in the collaborative process?
 - In particular at master level, they allow to set up programmes that can be offered both in their entirety or “à la carte”, allowing people to follow only one or more modules and, again, bridging the gap between so-called “academic” teaching-and-learning and so-called “professional” teaching-and-learning.
 - Lastly, but by no means the least, they can be used by lecturers to broaden and deepen their knowledge in specific areas of the topics they are meant to teach. They allow lecturers to learn from their fellow colleagues who know more and better than them. Modules organized at the international level, in a cooperative effort, can really re-create the community of lecturers and students, united all of them by, and in, the learning process.
10. “Microcredentials”, a word and concept that have now become fashionable, enter the picture as a particular type of modules.

Summary of the chapter in a few questions

This chapter is different from most other chapters of the HAQAA Materials. It is based on the readers' own experiences and on opinions that can legitimately diverge. Therefore, the questions that follow are simply meant to guide the reflection the chapter intends to promote.

1. What have been the sources of the knowledge you possess and apply?
2. What is a student: someone who studies or someone who attends lectures?
3. Have you equally learned from all the courses and lectures you have attended?
4. Have you ever attended a course on transversal / horizontal multidisciplinary knowledge and skills?
5. Have the courses you attended helped you in addressing the more pressing issues and problems of your community?
6. If you are a professor or an official in a public Administration dealing with Higher Education, do you consider satisfactory (from the perspective of the students and the local communities you must serve) the current organization of academic activities in your institution or the institutions that your Administration supervise?