



## PROSPECTING FOR LEARNING OUTCOMES IN MOROCCAN HIGHER EDUCATION: REALITY AND PERSPECTIVES

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### Abstract:

Higher education is in a perpetual state of evolution, and its objectives include skills training, which is achieved through teaching activities that put into practice an up-to-date learning process. To this end, the education system that drives this objective is structured on the basis of a modeling option and mechanisms for which the new CNPN constitutes an optimization and orientation frame of reference. This regulatory framework introduces innovations in pedagogical design and educational practice, as part of a reform perspective. This exploratory article examines the learning process and associated teaching activities in the context of this option, focusing on learning outcomes as an established educational principle that fosters dynamism in the learning process. A review of the paradigm ensures the implementation of this principle, though it appears that the criteria for its implementation are not yet fully accepted within the Moroccan education system. However, the ongoing reform offers an optimal and promising framework for adapting an educational model that aligns with this principle. This review methodically examines various sources of information to assess the context of higher education and the potential associated with the implementation of this learning outcomes principle, particularly in terms of the educational strategy adopted.

**Keywords:** reform, CNPN, competences, learning process, learning outcomes

### 1. Introduction

Moroccan higher education aims to “*train and promote skills, and develop and disseminate knowledge*”<sup>i</sup>. Despite the restrictive nature of the structural and operational conditions that establishments face. This is particularly challenging because such conditions can affect the visibility of educational missions and pedagogical activities. A series of reforms have been implemented with the objective of enhancing the system's qualifications and

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efficiency. These reforms have included the implementation of an upgraded training strategy, which is now based on a reference framework that has been proven to be effective. Within this new strategy, the learning process is considered to be of paramount importance.

This article will attempt to decipher the "learning outcomes" option as part of this learning process. In addition, the indicators justifying the potential and prospects for its adoption will be revisited in the light of the current reform. The issue of "learning outcomes" will thus be examined at the level of declared and implicit intentions, whether in terms of formalizing the learning process or qualifying it to improve teaching missions. In this manner, the following discussion will proceed: an examination of the possibilities for learning outcomes, both directly and indirectly, in today's higher education system.

## **2. Context of the Learning Process in Higher Education**

A fundamental objective of the education system, particularly in higher education, is to cultivate skills while emphasizing student learning and acquisition.

It is evident that an examination of the intricacies involved in the processes of teaching and learning is instrumental in identifying the advantages accruing to the teaching styles of educators and the learning styles of their students. This is particularly salient in terms of the degree of congruence between these styles, their productivity, and the ensuing performance of both educators and their students. The success of pedagogical endeavors by educators and the efficacy of student learning can be synergistically integrated on the basis of incorporating the principle of "learning outcomes" into teaching practice.

Conventionally, within the context of higher education, pedagogues have been organized around two primary activities: the dissemination of knowledge and the evaluation of students through standardized examinations (Ghaicha, 2018). However, these activities lack a clear definition and are not firmly rooted in established standards or metrics. According to an ANEAQ document on quality in higher education, learning outcomes represent a pivotal criterion in the design and delivery of training programs (2020, 19). It is crucial to acknowledge that the term "learning outcomes" does not signify a theoretical postulate or an abstract standard, but rather, it embodies an educational principle intrinsic to the learning process. This principle is characterized by its applicability and appropriation by the student, thus making it a fundamental lever in the execution of learning activities.

The question of students' learning outcomes remains an almost unknown aspect, as it is virtually absent from training programs, and no formal indication is reserved for it. This absence of consideration is notable, especially in regulatory texts, such as the "Cahier des Normes Pédagogiques Nationales (CNP)"<sup>ii</sup>. Consequently, training programs and their promoters, in this case, teachers, prioritize subject-specific educational objectives as the ultimate program or teaching goal, rather than identifying learning outcomes within these objectives.

At first glance, an analogy, or even confusion, may be perceived between learning outcomes and objectives, as they appear to represent the same thing. However, a distinction exists in their purposes (see Table 1), whereby the assessment of student achievement reflects the effect of teaching (Coles, 2006, p. 14). This is due to the fact that the purposes of objectives and Learning Outcomes will be understood through the assessment methods reserved for them (Harden, 2002).

**Table 1:** Distinctions between instructional objectives and learning outcomes (Harden, 2002)

Area of difference	Instructional objectives	Learning outcomes
1. The details of the specification	Instructional objectives are extensive and detailed	Learning outcomes can be described under a small number of headings
2. Level of specification where the emphasis is placed	Instructional objectives emphasize specification of instructional intent at a lower and more detailed level	Learning outcomes emphasize a broad overview with a design-down approach to a more detailed specification
3. The classification adopted and interrelationships	Instructional objectives are classified into discrete areas: knowledge, skills and attitudes	Interrelationship of learning outcomes with nesting of outcomes, knowledge embedded, and metacompetences recognized
4. Intent or observable result	Statements of aims and instructional objectives are perceived as intentions	Learning outcomes are guaranteed achievements
5. Ownership	Aims and objectives are owned by the curriculum developer and reflect a more teacher-centered approach to the curriculum	The development and use of learning outcomes can engage teaching staff and reflect a more student-centered approach

This phenomenon, concerning the formulation of objectives, manifests repeatedly throughout the curriculum, as its delineation adheres to the same principles that govern the general program and each instructional module. The definition of learning outcomes is inextricably linked to educational objectives, and they are subsequently associated with assessments and activities that are meticulously designed to assist students in achieving these objectives. According to the CNPN, an overview of the objectives' design delineates the activities that promote student learning.

**Table 2:** Student learning outcomes targeted by educational objectives in the different versions of the CNPN

CNPN / versions	Knowledge	Competencies	Attitudes / Skills	Key Practices & Innovations
2004	Disciplinary knowledge via major modules	Aptitudes & competencies aligned with program goals	Basic transversal skills (languages, IT, communication)	Six-semester structure (initiation, determination, deepening/professionalization); optional modules; continuous & final assessment
2014	Disciplinary knowledge + complementary subjects (e.g., entrepreneurship, professional communication)	Competencies tied to professional outcomes	Applied transversal skills through complementary modules	Two foundational semesters, followed by professionalization/deepening; module coherence with program objectives; continuous/final evaluation
2021	Scientific knowledge + foreign language knowledge	Life & personal competencies in every semester	Study, life, civic, and professional skills; tutored a project	Life & personal competencies modules; project-based learning; focus on adaptation, communication, civic engagement, and professional readiness
2023	Knowledge units, incl. professionalizing modules	Power skills (academic, digital, artistic, self-development, civic)	Digital literacy, artistic/cultural appreciation, leadership, societal responsibility	Dedicated power skills each semester; integration of socio-economic actors; foreign language modules
2025	Knowledge units + specialization elective	Horizontal modules (academic methods, digital & AI, entrepreneurship)	AI skills, entrepreneurial mindset, intercultural communication	Cumulative student file; Licence certificate appendix; Arabic unit for foreign-language programs; credits for extracurricular learning

The design of a program or course that is implemented through a formalized description process is therefore based on the definition of objectives in terms of the acquisition of knowledge and skills targeted by the educational activities approved by the learning and assessment processes. However, this design appears to lack a comprehensive integration of the students' learning outcomes, knowledge, and capabilities at the conclusion of the course. There is an absence of a mechanism for monitoring student learning outcomes, and students are the sole source of assessment data.

However, it should be noted that, in terms of the framework developed as part of the learning process, mechanisms are integrated to reinforce learning outcomes, the most efficient and innovative of which remains the "credit" system known as "ECTS: European Credit Transfer and Accumulation System" (ECTS, 2015). The system was introduced as *"learner-centered for the purposes of credit accumulation and transfer, and is based on the principle*

*of transparency in learning, teaching, and assessment processes.*" The implementation of these programs is predicated on the workload required of the student (learner) in order to achieve the program objectives, which are defined in terms of the knowledge and skills to be acquired (learning outcomes) (Deschanet *et al.*, 2022). The efficacy of the program's teaching module is contingent upon the validation of its correspondence with credits that are commensurate with the student workload required to complete the module. This validation is particularly crucial given the integration of workload and learning outcomes within the credit mechanism (CSEFRS, 2019, 31). Consequently, it is a mechanism that is concomitant with learning outcomes, thereby enabling qualitative recognition of student achievement (Guide, 2015). This mechanism *"requires pedagogical flexibility and provides the opportunity to validate personal work and individual projects. Its logic promotes a culture of responsibility among students"* (Kouhlani *et al.*, 2021).

### 3. Learning Outcomes: What are they?

The act of teaching is predicated on the notion that instruction should address both the "what" and the "how" of learning, emphasizing the role of pedagogy in shaping the educational experience (Idelcadi, Rguibi & Bouziane, 2020). In this context, the intended learning outcome of a given teaching method encompasses not only the knowledge that is to be acquired, but also the manner in which it is to be learned and the underlying principles that govern its acquisition. Consequently, from the perspective of learning outcomes, it is about what a student is expected to learn and how they are expected to learn after being exposed to instruction (Biggs & Tang, 2011). This is particularly salient as Conceptions of pedagogical activity and modes of learning are shaped by the presence or absence of an outcome-oriented focus, though the clarity of these outcomes may be limited (Havnes & Prøitz, 2016). Adam, in 2004, collected a variety of definitions, highlighting the importance attached to it and the wide diversity of its use in research and educational systems. Subsequent developments have focused on this process, enhancing its visibility and applicability. A synthetic definition of learning outcomes asserts that they are *"statements of what the individual knows, understands and is able to do on completion of a learning process"* (Users' Guide, 2015). In this sense, and in accordance with the vision established within the Bologna paradigm, the definition stipulates that *"learning outcomes describe, in a verifiable manner, what the learner is expected to know, understand, and be able to do after completing a given training program"* (CO, 2009). Therefore, according to the reference texts governing "learning outcomes," the aim is to establish the competencies that students should have acquired by the conclusion of the course. However, for the practical purposes of this course, it is necessary to demonstrate a teaching strategy and modes of assessment that are congruent with this learning objective (Kennedy *et al.*, 2007; Lokhoff *et al.* 2010). To this end, the learning outcomes, as represented by the statements, are to be assessed at the level of each module. According to the experiences, models, and work devoted to them, the number of learning outcomes per module is approximately six (Kennedy *et al.*, 2007; Cedefop, 2022).

The formulation and documentation of these learning outcomes necessitate a conceptual foundation guided by the principles of Bloom's taxonomy, which comprises six categories: Knowledge, Comprehension, Application, Analysis, Synthesis, and Evaluation. This taxonomy serves as the foundation for a framework that organizes the learning process along a continuum from simplicity to complexity (Anderson & Krathwohl, 2001). The relevance of Bloom's taxonomic model to the definition of learning and assessment objectives is well established. Despite its age (1956), particularly in its revised form, the model retains practical and current value as a foundational framework in the conception of learning programs, not only with regard to the Bologna process<sup>iii</sup>, but also in the world's most successful higher education systems. The learning outcomes aspect of this concept has been initiated and developed to become an indispensable tool in teaching. The role assigned to this tool is predicated on the principle that results can be actual achievements or represent the essence of what a learning program is striving to achieve.

The principle of learning outcomes invites teachers to design their teaching not only in terms of content, but also on the basis of the learning that students will acquire. To this end, teachers are called upon to apply themselves in the construction of this design on the basis of theoretical models that underpin their practice, in a coherent and shared manner across the training stream and discipline (Kennedy *et al.*, 2007).

Moreover, in terms of a relationship or convergence with learning objectives, learning outcomes reflect the student's achievements rather than the teacher's task or action as expressed in a module's objectives (Adam 2004). In this respect, learning outcomes reveal the intended effects of the learning that the course aims to achieve in students, whereas objectives concern the teaching that is programmed and the application of teachers in achieving it. In essence, the learning outcome signifies the student's anticipated level of achievement by the conclusion of the course, emphasizing the acquisition of knowledge and skills. Subsequent to the completion of the course, an assessment is conducted by the instructor to ascertain the extent to which the student has attained the learning objectives, particularly in terms of factual knowledge and the application of skills. Conversely, the learning objective serves to delineate the instructional purpose and to describe the knowledge or content that will be imparted. It delineates the subject content that the teacher intends to present and that the student is expected to receive during the course (Kennedy *et al.*, 2007).

In accordance with the established tradition of the CNPN, which began with the inception of the LMD system (Kouhlani, 2009), the module's description commences with the delineation of its objective, a task entrusted to the instructor. This objective is to be articulated within the designated framework provided for this purpose. Consequently, the program's development is conducted by the teaching staff and is fundamentally aligned with the guidelines established by the CNPN. While this educational framework is a high-quality tool for representing students' knowledge and skills acquisition (see Table 2), it remains subject solely to the teachers' conceptions and assessments. This is particularly problematic because it does not allow for much more than a preliminary

assessment of students' expectations of the program that will be prescribed to them in the curriculum. It is evident that the cultivation of an educational culture encompassing the concept of "learning outcomes" will serve to enhance student motivation and ensure transparency in their educational selection and pathways.

**Table 3:** Presentation of indicators suggesting the learning outcomes approach according to the CNPN versions

Dimension	CNPN versions				
	2004	2014	2021	2023	2025
<b>Learning Outcomes Framework</b>	Knowledge, aptitudes, competencies	Same framework; clearer module categorization	Adds life & personal skills	Introduces "Power Skills"	Keeps Power Skills via "Horizontal Modules" + AI
<b>Module Categories</b>	Majors, Transversal (languages, IT, comm.), Optional	Majors (75–85%), Complementary (languages, comm., entrepreneurship, tech)	Knowledge, Foreign Languages, Life & Personal Skills	Knowledge (incl. professionalizing), Foreign Languages, Power Skills	Knowledge, Languages, Horizontal Modules (skills, AI, entrepreneurship)
<b>Skill Development</b>	Technical & disciplinary focus	Adds professional communication, entrepreneurship	Adds Study, Life, Civic, Professional skills	Adds artistic/cultural, self-dev., civic responsibility	Adds specialization elective, entrepreneurial culture, AI skills
<b>Professional Integration</b>	Professionalization in later semesters	Internships / tutored projects for some tracks	Tutored project mandatory	Professionalizing units co-designed with socio-economic actors	Cumulative file includes extra-curricular & professional activities
<b>Language Focus</b>	Languages in transversal modules	Language & terminology in complementary modules	6 foreign language units	6 foreign language units	4 foreign language units + Arabic requirement for foreign-language programs
<b>Digital Competence</b>	IT in transversal modules	IT in complementary modules	No specific AI mention	Digital skills (semester 2 & 5)	Digital & AI skills (semester 2)
<b>Evaluation Methods</b>	Continuous + final exams	Continuous + final exams	Skills-based projects	Skills-based mapping across semesters	Cumulative Student File + Licence appendix
<b>Outcome Tracking</b>	Module objectives aligned with program	Same as 2004, more structure	Tracking via mandatory skill modules	Tracking via semester-based Power Skills	Comprehensive appendix + cumulative file
<b>Extra-Curricular Recognition</b>	Not formalized	Not formalized	Not formalized	Not formalized	Credits extra-curricular learning in the cumulative file

In summary, it should be noted that although the "results" component of learning has long been an essential principle established by the Bologna Process and one of the issues

that has attracted the attention not only of researchers but also of various stakeholders involved in university education (Caspersen *et al.*, 2017), it remains that this component is not explicitly formulated or recommended by standards in line with the actions envisaged by the reform. However, an analysis of the various versions of the CNPN reveals indications of implicit acceptance of the learning outcomes approach. As illustrated in Table 3, these aspects are reflected in the pedagogical organization of the current higher education system.

The prevailing educational reform, as espoused by the CNPN (2025 version), exhibits a greater propensity to facilitate the implementation of the learning outcomes approach. This pedagogical approach is predicated on and consistent with the principles of constructive learning, a student-centered approach, and the primacy of skills acquisition. The implementation of this strategy necessitates the utilization of reference materials to foster innovation and adaptability in professional practices. The following text is intended to provide a comprehensive overview of the subject matter.

In the context of higher education undergoing transformation and enhancement, adhering to the reference process, the learning outcomes premise emerges as a pivotal instrument for refining expectations and addressing concerns regarding skills, qualifications, and quality. The following text is intended to provide a comprehensive overview of the relevant subject matter.

#### 4. Conclusion

The present exploratory study of the learning process adopted and envisaged in higher education, particularly in the logic of reform, has made it possible to revisit the paradigms that are supposed to activate it. The objective of this study is to determine the meaning of making the objective stipulating "student-centered learning" a reality at the level of envisaged practices. In this regard, the concept of "learning outcomes" emerges as a pertinent principle for this option within educational approaches. The present study recommends the adoption of a credit system as a significant step in this direction, and it provides recommendations for adapting higher education to the expectations of the public and the needs of society. From an organizational and regulatory point of view, the higher education system seems predisposed to the adoption of the learning outcomes approach, and it is the act of implementation that remains to be done. The ESRI Pact<sup>iv</sup>, which aims to "build a new model for the Moroccan university," appears to be progressing in this direction by opting for "full and complete pedagogical renovation. Undoubtedly, the experimentation with the learning outcomes paradigm in teaching missions and strategies would be an opportunity to examine the approach that is required to place the student at the center of educational action<sup>v</sup>.

This process is regarded as having considerable potential for enhancing higher education; however, it remains unfinished as long as the learning outcomes mechanism has not been fully integrated into educational practices and pedagogical approaches.



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### **Conflict of Interest Statement**

The authors declare no conflicts of interest.

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### **Notes:**

- <sup>i</sup> Art 1, law n° 01-00 on the organization of higher education. B.O N° 4800 of June 1, 2000. Dahir n° 1-00-199 of 15 Safar 1421 (May 19, 2000).
- <sup>ii</sup> The “Cahier des Normes Pédagogiques Nationales (CNPN)” adopted by the Ministry of Higher Education, Scientific Research and Innovation, as regulations governing the organization of teaching, admission procedures, and validation of modules and semesters. These regulations are enforced by ANEAQ.
- <sup>iii</sup> Bologna process. European Higher Education Area. <https://www.ehea.info/index.php>
- <sup>iv</sup> Plan National d'Accélération de la Transformation de l'Écosystème de l'Enseignement Supérieur, de la Recherche Scientifique et de l'Innovation (ESRI - National Plan to Accelerate the Transformation of the Higher Education, Scientific Research and Innovation Ecosystem). <https://pactesri.enssup.gov.ma/>
- <sup>v</sup> Article 28\_Dahir No. 1-19-113 of August 9, 2019, promulgating Framework Law No. 51-17 on the education, training, and scientific research system. Official Bulletin No. 6944, December 17, 2020.

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