



Towards A New Architecture of University Degrees: Beyond the LMD Reform in Morocco*

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ABSTRACT: The Licence–Master–Doctorate (LMD) system was introduced in Morocco to modernize higher education and align its degree structure with international standards. Although the reform has contributed to the reorganization of university studies, more than two decades of implementation have revealed that the current duration of training is insufficient to achieve the educational objectives expected of contemporary university graduates. Limited training time constrains the progressive development of disciplinary knowledge, methodological competence, research skills, professional preparation, and intellectual maturity. Adopting a conceptual and policy-oriented approach based on documentary and comparative analyses, I argue that the duration of university education should be determined by the educational purposes of each degree cycle. Drawing on international experience and the Moroccan context, I propose a new architecture of university degrees that connects training time with progressive learning and professional preparation. Rather than advocating longer programs as an end in themselves, I suggest that adequate training time is a prerequisite for improving educational quality, research capacity, graduate preparedness, and the international recognition of Moroccan university qualifications.

KEYWORDS: University Degree Architecture, Degree Structure Reform, Higher Education Policy, University Degree Duration, Morocco

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INTRODUCTION

Higher education is expected not only to transmit knowledge but also to develop graduates capable of critical thinking, independent research, problem solving, innovation, and professional adaptability in increasingly complex and knowledge-driven societies. As universities assume broader roles in research, innovation, economic development, and societal transformation, increasing attention has been given to whether university programs provide the disciplinary knowledge, methodological competence, research capacity, and professional preparation expected of contemporary graduates. These expanding expectations raise an important question concerning the temporal organization of university education: whether the duration assigned to degree programs provides adequate conditions for the progressive development and consolidation of these capacities.

Morocco introduced the LMD¹ system to remodel its higher education system and align its degree structure with international standards. While the reform has improved the organization and comparability of university studies, its implementation has revealed

¹ The LMD system originates from the *Bologna Process*, officially launched through the *Bologna Declaration* signed by 29 European countries in 1999, following the *Sorbonne Declaration* (1998). The reform was designed to overcome the fragmentation of European higher education systems by establishing a coherent European Higher Education Area (EHEA) based on a three-cycle degree structure (Bachelor/Licence–Master–Doctorate), the European Credit Transfer and Accumulation System (ECTS), quality assurance mechanisms, and mutual recognition of qualifications. Its principal objectives are to facilitate student and staff mobility, enhance the transparency and comparability of qualifications, improve graduate employability, promote lifelong learning, and strengthen the international competitiveness of European higher education (Bartelse & Huisman, 2008; European Ministers of Education, 1999; EHEA, 2020). Since then, the LMD model has been adopted by numerous countries beyond Europe, including Morocco, as part of broader higher education reforms. Despite these realizations, the system has been criticized for encouraging

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persistent concerns regarding the duration of university training, particularly at the Bachelor's (Licence) and Master's levels. This article does not argue that Morocco should abandon the LMD model because it originated elsewhere; rather, it argues that no higher education model should be regarded as universally optimal. Hence, the organization and duration of university degree cycles should be periodically reassessed in light of evolving educational objectives, national development priorities, and the specific realities of the higher education system in which they operate.

The current three-year Bachelor's and two-year Master's programs have been widely associated with concerns regarding curriculum compression, limited opportunities for the progressive development of disciplinary knowledge, research competence, methodological skills, professional preparation, and academic maturity (Kehm & Teichler, 2006; Teichler, 2008; Sursock & Smidt, 2010). Scholars have argued that the implementation of the Bologna degree structure often resulted in densely packed curricula and increasing pressure to achieve ambitious learning outcomes within relatively short periods of study. Such judgments have raised questions about the capacity of the current degree architecture to fulfill the broader educational purposes of higher education (Neave, 2003; Zgaga, 2006). Although these concerns have become increasingly visible in higher education research, policy debates, and university practice, relatively little scholarly attention has been devoted to examining the relationship between the duration of university education and the educational purposes assigned to each degree cycle. Rather than questioning the Bologna architecture per se, this article argues that program duration should be determined by the educational objectives expected of each cycle, including the progressive acquisition of disciplinary knowledge, research capacity, intellectual maturity, and professional competence (Barnett, 1999, 2007).

I accordingly argue that improving the quality of Moroccan higher education requires rethinking the duration of university training as an educational resource rather than a fixed structural characteristic of degree programs. Drawing on documentary and comparative analyses, I examine the educational basis for extending university training. I consider international experiences and the Moroccan context as the basis for formulating a different proposal. I suggest a new architecture of university degrees in which the duration of each cycle is aligned with its intended learning outcomes and educational objectives.

The article is organized as follows. Section one reassesses the adequacy of the current duration of university education in relation to the changing purposes of higher education, the Moroccan experience with the LMD reform, disciplinary and curricular demands, and the educational significance of training time. Section two situates this problem within the broader literature on higher education reform, international degree structures, and policy borrowing and transfer, before identifying the research gap and developing a purpose-oriented model of university degree architecture. Section three applies the model to the Moroccan context through a proposed 4+3+5 design comprising a four-year Bachelor's degree, a three-year Master's degree, and a five-year Doctorate, and examines the didactic rationale and structure of the proposed cycles. The article concludes by considering the broader implications of this design for Moroccan higher education reform.

1. REASSESSING THE CURRENT DURATION OF UNIVERSITY EDUCATION

Universities have never been static institutions. Their organization has continuously evolved in response to changing conceptions of knowledge, scientific and technological development, labor-market transformations, and broader societal expectations (cf. Watson et al., 2011; Hungwe & Waghid, 2024). The structure and duration of university degrees should therefore not be regarded as immutable institutional arrangements, but as educational and policy choices whose adequacy depends upon their capacity to achieve clearly defined purposes. This principle is particularly relevant to Morocco, where the LMD architecture has now been in place for more than two decades and can consequently be reassessed in light of the educational conditions, expectations, and priorities that have developed since its introduction.

This dynamic understanding of higher education has become even more important over the last three decades. Contemporary universities are expected not merely to transmit disciplinary knowledge but also to produce research, stimulate innovation, contribute to economic competitiveness, address complex societal challenges, and prepare graduates capable of lifelong learning in rapidly changing professional environments. The educational mission of universities has therefore expanded considerably beyond the traditional objective of providing specialized disciplinary instruction. Barnett (1999, pp. 59-96) argues that higher education now operates within an increasingly complex environment in which universities are expected to cultivate knowledge, critical judgment, intellectual flexibility and adaptability, social responsibility, and the capacity to respond thoughtfully to uncertain future changes. Such expanded expectations inevitably require universities to reconsider not only what students learn but also the conditions under which meaningful learning can progressively occur.

excessive standardization, compressing disciplinary curricula, increasing administrative complexity, and failing to produce uniform improvements in educational quality or graduate preparedness across participating countries (Kehm & Teichler, 2006; Wihlborg & Teelken, 2014).

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This evolution has profound implications for the organization of university education. The gaining of advanced disciplinary knowledge, methodological competence, research capability, critical thinking, academic writing, problem-solving skills, and professional autonomy is inherently cumulative. These competencies develop progressively through sustained engagement with disciplinary communities, repeated opportunities for analysis and reflection, supervised research experiences, and increasing intellectual independence. Higher education is therefore not simply a process of transmitting information within a predefined period of study; it is equally a process of intellectual formation through which students progressively become capable of producing, evaluating, and applying knowledge. As Barnett (2009) emphasizes, university education should be understood not only as a process of knowing but also of becoming, whereby the development of epistemic dispositions and intellectual maturity is inseparable from the gradual acquisition of knowledge.

These expanded expectations have important implications for the organization of university education. As the purposes assigned to university degrees become more numerous and demanding, questions of curriculum content and assessment must be considered alongside the broader conditions under which learning develops progressively. The organization and duration of degree cycles are relevant in this respect because educational objectives such as independent inquiry, research competence, interdisciplinary thinking, and professional readiness require sustained developmental trajectories rather than isolated curricular exposure. The adequacy of existing degree structures must therefore be considered in relation to the educational processes they are expected to support.

Within this broader international context, Morocco introduced the LMD system as one of the most ambitious reforms of its higher education system. The reform was initiated within the broader framework established by Law 01-00 on the organization of higher education and became operational with the introduction of the new LMD architecture at the beginning of the 2003-2004 academic year,² initially through the reorganization of undergraduate studies around the Licence cycle and subsequently through the restructuring of Master's and doctoral education. Inspired by the principles underlying the Bologna Process, the reform sought to modernize university education, harmonize degree structures with international standards, facilitate the recognition of qualifications, and improve the overall organization of academic programs. The resulting architecture reorganized university education around successive Licence, Master's, and Doctorate cycles, each associated with specific academic objectives, competencies, and expected learning outcomes. In this framework, the duration assigned to each cycle became an integral component of the organization of university studies. Yet duration should not be understood merely as a structural parameter defining the number of semesters required for a degree; it also determines the temporal framework within which the knowledge, competencies, and intellectual capacities associated with that degree are expected to develop.

The central question, therefore, is whether the duration currently assigned to the principal degree cycles provides sufficient time to achieve the educational purposes expected of contemporary university graduates. The issue is not whether three years or two years constitute universally inadequate periods of study; rather, it is whether these durations remain educationally appropriate within the Moroccan context, given the expanding expectations placed upon universities and the increasingly complex competencies expected of graduates. Answering this question requires moving beyond administrative considerations or international conformity to examine a more important issue: the relationship between program duration and the educational purposes assigned to each degree cycle.

² The new degree architecture was subsequently consolidated through implementing regulations, notably Decree No. 2-04-89 of 7 June 2004, which specified university institutions, higher-education cycles, and the corresponding national diplomas. Its implementation was not, however, a merely technical reorganization of degree structures and soon generated critical assessments. Ghouati (2009) emphasizes the largely top-down character of the LMD reform in the Maghreb and the limited involvement of university actors in its conception and implementation, while also questioning the extent to which formal structural change translated into demonstrable pedagogical improvement. Cherkaoui (2011), in his broader critique of the Moroccan university, draws attention to the gap between institutional reform measures and the academic and organizational conditions required for their effective implementation, including the risk that reforms become bureaucratic prescriptions rather than substantive transformations of academic practice. Focusing more specifically on language education, Amargui (2013–2014) argues that the expectations attached to the language-and-communication component introduced under the LMD reform had not been fulfilled and calls for its reconsideration. The *Conseil Supérieur de l'Éducation, de la Formation et de la Recherche Scientifique* (CSEFRS, 2018), in its institutional evaluation of Moroccan higher education, similarly identifies major implementation constraints, including insufficient preparation and mobilization of academic staff, increasing student numbers, and inadequate human and material resources. Collectively, these assessments point to a persistent discrepancy between the formal ambitions of the LMD reform and the institutional and pedagogical conditions shaping its implementation.

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1.1 THE CHANGING PURPOSES OF HIGHER EDUCATION

The purposes assigned to higher education have expanded considerably alongside the growth of scientific knowledge, the increasing complexity of professional practice, the internationalization of higher education, and the growing importance of research and innovation. Universities are now expected to combine disciplinary formation with the development of capacities for complex problem-solving, knowledge production, effective communication, interdisciplinary engagement, and adaptation to changing social and technological environments. International policy frameworks similarly situate the purposes of higher education beyond immediate preparation for employment, emphasizing lifelong learning, the development of higher-order knowledge and competencies, active participation in society, and the capacity to respond to rapidly changing social, economic, and technological environments (UNESCO, 2015; Organization for Economic Co-operation and Development [OECD], 2019).). This expansion of educational purposes raises an important question for the organization of university degrees: does the current duration of university education provide sufficient time to achieve these increasingly ambitious objectives?

The significance of this question lies in the cumulative nature of university learning itself. Unlike the learning of isolated technical skills, higher education requires a gradual progression from foundational knowledge to conceptual understanding, methodological competence, independent inquiry, and ultimately the capacity to evaluate and produce knowledge. Such progression requires sustained opportunities for intellectual engagement, critical reflection, methodological practice, academic writing, and increasingly independent inquiry across the curriculum. Thus, the educational effectiveness of a university program depends not only on what is taught but also on whether sufficient time exists for students to internalize, integrate, and apply progressively complex forms of knowledge.

This observation is particularly relevant within the Moroccan higher education system. Under the current LMD structure, the three-year Licence is no longer conceived exclusively in terms of disciplinary formation. The pedagogical reform implemented within PACTE ESRI 2030³ explicitly organizes undergraduate education around three complementary components: disciplinary formation, foreign-language proficiency, and “Power Skills,” the latter encompassing transversal and digital competencies as well as broader forms of complementary training (Ministry of Higher Education, Scientific Research and Innovation [MESRSI], 2024b). The reform also explicitly connects Licence education with the preparation of graduates capable of responding to the human-capital needs of the socio-economic sectors, thereby reinforcing the professional and employability dimensions of undergraduate education (MESRSI, 2024b). At the same time, methodological training, practical activities, supervised projects, and, in some programs, final projects have historically provided opportunities for students to progressively engage with forms of inquiry and applied knowledge beyond conventional coursework.⁴ The Master's program is then expected, within two years, to deepen disciplinary specialization while developing research and/or advanced professional competencies.⁵ Overall, these developments reveal a growing discrepancy

³ PACTE ESRI 2030 refers to Morocco's *Plan National d'Accélération de la Transformation de l'Écosystème de l'Enseignement Supérieur, de la Recherche Scientifique et de l'Innovation à l'horizon 2030*, the national framework through which the Ministry of Higher Education, Scientific Research and Innovation has sought to accelerate the transformation of the higher-education, research, and innovation system toward 2030. Developed within the broader orientations of Morocco's New Development Model, the plan addresses several interconnected dimensions of higher education, including pedagogical transformation, scientific research and innovation, governance, digitalization, internationalization, and the relationship between university education and socio-economic development. Of particular relevance to the present discussion is its pedagogical dimension, which seeks to broaden student formation beyond specialized disciplinary instruction through stronger foreign-language proficiency, transversal and digital competencies, notably through the “Power Skills” component, and greater attention to employability, entrepreneurship, and student participation in complementary or para-university activities. PACTE ESRI 2030 is therefore relevant here not simply as a general policy framework but because it exemplifies the expansion and diversification of the learning outcomes now assigned to Moroccan university education. The present argument does not question the educational relevance of these objectives; rather, it asks whether their incorporation has been accompanied by a corresponding reconsideration of the curricular organization and training time required for their progressive and meaningful achievement.

⁴ Project-based and research-oriented work has not occupied a stable position within the Moroccan Licence. Earlier curricular arrangements provided for final projects (projets de fin d'études, PFE), which could include written research work, practical projects, or other forms of supervised inquiry. The compulsory PFE was subsequently removed from the general Licence architecture under the curricular reform introduced in 2023, although research-oriented or project-based work may continue to be incorporated in particular programs and disciplinary contexts. The change is noteworthy because it reduces the formally prescribed place of sustained research initiation within the general Licence curriculum at a time when other components of undergraduate formation, including languages, digital competencies, and transversal skills, have been reinforced (MESRSI, 2023/2024).

⁵ Research training constitutes an important component of Master's education across different disciplinary fields, although its precise form and its relationship to professional training vary according to the objectives of individual programs. In the humanities and

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between the expanding purposes assigned to university education and the time available for achieving them. The Licence must now accommodate disciplinary formation alongside linguistic, transversal, digital, methodological, and professional competencies; while the two-year Master's must combine advanced specialization with research and/or professional training. The educational question is therefore whether these multiple objectives can be developed with sufficient depth and progression within the existing duration of the two cycles.

It is important to emphasize that this argument should not be interpreted as suggesting that longer programs automatically produce better graduates. Duration alone does not guarantee educational quality, just as shorter programs are not inherently deficient. Program quality ultimately depends upon coherent curriculum design, effective teaching, appropriate assessment, adequate resources, and supportive learning environments. Nevertheless, time remains a fundamental educational condition. Without sufficient time for progressive learning, increasingly ambitious educational objectives run the risk of becoming aspirational rather than achievable. The question, therefore, is not whether university studies should simply be extended, but whether the duration assigned to each degree cycle corresponds realistically to the knowledge, competencies, research capacity, and professional maturity that universities expect graduates to attain.

1.2 A CRITICAL REASSESSMENT OF THE LMD REFORM

Notwithstanding the important institutional reorganization achieved through the LMD reform, its implementation should not be understood as the final stage of higher education improvement. Like any public policy, educational reforms are products of particular historical circumstances and are designed to address specific educational priorities prevailing at the time of their adoption. Their long-term relevance therefore depends upon their continued ability to respond to evolving educational, scientific, economic, and societal needs. As universities transform and new expectations emerge, institutional arrangements that were once considered appropriate may gradually become less effective in achieving their intended objectives. Periodic reassessment is therefore not an indication of policy failure but rather an essential component of responsible educational governance and continuous institutional improvement.

More than twenty years after the introduction of the LMD reform, the relevant question is whether the current organization and duration of university degree cycles continue to correspond to the educational purposes assigned to them. During this period, the Moroccan higher education system has undergone substantial quantitative and qualitative transformations. The most immediately visible of these has been the expansion of student enrolment. According to the Ministry of Higher Education, Scientific Research and Innovation, enrolment in public universities increased from 750,130 students in 2015-2016 to 1,106,225 in 2023-2024, while the number of new entrants rose from 213,449 to 297,887 over the same period. The expansion of teaching and physical capacity has been more limited: the number of teaching staff increased from 13,170 to 16,610 and the number of available places from 446,067 to 578,962 (Ministry of Higher Education, Scientific Research and Innovation, 2024a). These figures illustrate the scale of the massification experienced by Moroccan public universities and the increasing institutional and pedagogical pressures under which university programs now operate.

The pedagogical implications of this massification extend beyond the quantitative expansion of enrolment. Larger student cohorts can place increasing pressure on opportunities for individualized feedback, sustained academic interaction, methodological training, academic writing, and supervised research activities. These pressures primarily reflect constraints of institutional capacity, staffing, infrastructure, and pedagogical organization rather than program duration itself.⁶ They are nevertheless relevant to the present

language disciplines, Master's programs commonly culminate in a supervised research project followed by an oral defense; current regulations at the Faculty of Letters and Human Sciences of Cadi Ayyad University, for example, explicitly regulate the supervision, submission, examination, and public defense of Master's research projects, while the Master in Linguistics and Advanced English Studies reserves its fourth semester for the PFE. In the Master en Sciences et Techniques, the national pedagogical standards similarly require a final project undertaken in a professional or research-and-development environment, culminating in a thesis and oral defense. These arrangements illustrate the dual orientation of Master's education toward advanced disciplinary formation and the development of research and/or professional competencies.

⁶ These pressures are also consistent with my own experience of the Moroccan higher education system, particularly in open-access university programs. Over successive academic years, increasing student numbers have become visible through larger and frequently overcrowded classes, greater pressure on teaching spaces, more difficult classroom management, and less favorable conditions for sustained interaction, individualized feedback, academic guidance, methodological training, and supervised work. Problems of student disengagement, disruptive behavior, and academic misconduct may also become more difficult to prevent and manage in very large cohorts. These conditions contrast with those generally associated with selective-access institutions, where admission procedures and controlled intake substantially establish different pedagogical environments. Selective access itself, however, takes different forms across Moroccan higher education. The Écoles Nationales d'Architecture (ENA), for example, recruit students

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argument because the adequacy of training time cannot be assessed independently of the conditions under which that time is educationally used. A degree of a given duration may provide very different opportunities for progressive learning depending on cohort size, access to supervision, and the institutional resources available to support sustained academic development.

At the same time, the educational expectations assigned to university programs have expanded substantially since the introduction of the LMD reform. As discussed above, current Moroccan higher education policy extends university formation beyond disciplinary instruction to encompass a broader range of linguistic, digital, transversal, professional, and research-related competencies.⁷ Quality

directly after the baccalaureate through a process combining academic preselection and a competitive entrance examination. Major public engineering institutions such as the Institut National des Postes et Télécommunications (INPT), the École Mohammadia d'Ingénieurs (EMI), the École Nationale Supérieure des Mines de Rabat (ENIM), and the École Nationale Supérieure d'Informatique et d'Analyse des Systèmes (ENSIAS) recruit a substantial proportion of their students through competitive admission following preparatory studies, while also providing selective alternative or parallel routes for holders of specified university qualifications. The Écoles Nationales des Sciences Appliquées (ENSA) provide another model, combining selective admission with an integrated preparatory cycle followed by specialized engineering training. The Institut Agronomique et Vétérinaire Hassan II (IAV Hassan II) similarly illustrates the combination of selective progression and extended training, with engineering education organized over five post-baccalaureate years, including an integrated preparatory phase followed by specialized engineering formation, while veterinary training extends over an even longer trajectory. Comparable arrangements are also found in private higher education. At the Université Internationale de Rabat (UIR), for example, engineering programs are generally organized over five years, commonly comprising an integrated preparatory phase followed by specialized engineering education. What these institutions share, therefore, is not a single mode of admission, but the regulation of student intake and the organization of learning through relatively controlled cohorts and progressively structured training trajectories. In such environments, teaching and learning generally take place under substantially more favorable conditions than those encountered in highly massified open-access programs: attendance and participation can be more closely monitored, students can receive more regular feedback and supervision, and practical, project-based, laboratory-based, or research-oriented work can be progressively developed. The comparison is particularly instructive for the question of training time. Architecture, engineering, agronomic, veterinary, and comparable professional education in Morocco generally extend over longer and carefully sequenced trajectories, allowing knowledge and competencies to be introduced, practiced, consolidated, and progressively integrated over several years. These cases should not be interpreted as demonstrating that selectivity or longer duration automatically guarantees educational quality. They nevertheless illustrate an important structural contrast within Moroccan higher education: institutions operating with selective admission, more regulated cohorts, sustained pedagogical supervision, and longer or more progressively structured training trajectories provide conditions substantially different from those confronting massified three-year open-access Licence programs. The comparison is therefore relevant not because these institutions provide a model that can simply be transferred to open-access university programs, but because it illustrates how cohort size, supervision, curricular progression, and training time interact in shaping the conditions for learning. More regulated and progressively structured trajectories can provide greater opportunities for students to learn, practice, consolidate, and ultimately demonstrate the disciplinary knowledge and professional competencies expected of their qualifications. For the relevant national pedagogical standards and institutional regulations, see particularly Ministry of Higher Education, Scientific Research and Innovation (2014); École Mohammadia d'Ingénieurs (n.d.); École Nationale Supérieure des Mines de Rabat (n.d.); École Nationale Supérieure d'Informatique et d'Analyse des Systèmes (2023); Institut National des Postes et Télécommunications (n.d.); Institut Agronomique et Vétérinaire Hassan II (n.d.); and Université Internationale de Rabat (n.d.).

⁷ The expansion of these components should nevertheless be distinguished from the effectiveness of their curricular implementation. One particularly problematic feature of the current organization concerns the grouping, within a single module, of pedagogically distinct elements such as foreign-language instruction, digital competencies, and transversal or soft-skills training. Although such components may legitimately contribute to a broader conception of undergraduate formation, their administrative aggregation does not necessarily correspond to pedagogical coherence. English-language proficiency, digital literacy, and transversal competencies involve different learning objectives, teaching methods, forms of progression, and modes of assessment; treating them as elements of a single curricular unit may therefore obscure rather than clarify what students have actually learned. The consequences become especially apparent in assessment and remediation. Where validation and retake procedures operate at the level of the composite module, a student who has satisfactorily completed one or more elements but failed another may be required to repeat assessment across the grouped components. Such an arrangement weakens the principle that assessment should correspond as directly as possible to identifiable learning outcomes and may oblige students to be reassessed in competencies they have already demonstrated. Conversely, where compensation between elements is permitted, satisfactory performance in one component may contribute to the validation of a module despite insufficient mastery of another pedagogically distinct competency. In both cases, aggregation can reduce the transparency of the relationship between learning outcomes, assessment, validation, and the competencies ultimately certified by the degree. A more educationally coherent approach would be to treat substantively distinct subjects as separately

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assurance has also become more firmly institutionalized through national procedures for program accreditation, institutional evaluation, and continuous improvement under ANEAQ. The LMD architecture therefore now operates within an educational and institutional environment that is considerably more demanding than the one in which it was originally introduced.

Yet despite these changes, the basic temporal organization of university education has remained largely unchanged. The three-year Licence and two-year Master's continue to constitute the principal pre-doctoral cycles of Moroccan university education, even as the educational functions assigned to them have become more extensive and complex. This growing discrepancy between an evolving educational environment and a relatively stable degree structure reinforces the need to reassess whether the duration of the LMD cycles remains commensurate with the outcomes they are now expected to achieve.

Questions about the adequacy of program organization must also be situated within the broader challenges of student progression, program completion, and internal efficiency. A CSEFRS evaluation of open-access Licence programs conducted across three Moroccan public universities reported an attrition rate of approximately 54%. Importantly, the Council did not attribute this outcome to a single factor, but identified a combination of difficulties involving language proficiency, study methodology, curricular organization, academic and professional guidance, digital provision, institutional resources, and the development of transversal competencies (CSEFRS, 2018). These findings cannot be interpreted as evidence that program duration is itself the principal cause of student attrition. They do, however, demonstrate the breadth of the pedagogical and institutional challenges that the undergraduate cycle is expected to address within its existing structure. When the Licence is simultaneously required to consolidate disciplinary knowledge, respond to students' methodological and linguistic needs, develop transversal and digital competencies, introduce research, and support academic and professional orientation, the question of whether sufficient curricular time is available for these different processes to be developed progressively and effectively becomes particularly relevant.

Overall, these developments suggest that the adequacy of the LMD architecture can no longer be assessed solely in relation to the conditions and objectives that shaped its initial introduction. The substantial transformation of Moroccan higher education over the past two decades has altered both the environment in which university learning takes place and the outcomes expected of degree programs. Reassessing the Licence and Master's therefore requires examining whether their present duration and organization still provide sufficient conditions for the progressive development of the knowledge, competencies, and intellectual independence now expected of graduates.

Addressing this question requires moving beyond evaluations of the LMD reform based primarily on administrative efficiency, international compatibility, or institutional organization. While these dimensions remain important, they provide only a partial measure of the educational adequacy of a degree structure. Ultimately, any degree architecture should be assessed according to its capacity to provide the conditions necessary for students to progressively attain the knowledge, competencies, and intended learning outcomes associated with each degree cycle. If the educational purposes assigned to university programs evolve and become more demanding over time, then the organization and duration of those programs must likewise remain open to critical reassessment. The central issue is therefore one of correspondence between educational purpose, intended learning outcomes, and the time available for their progressive achievement. It is precisely this relationship between educational purpose and program duration that constitutes

identifiable, credit-bearing, and assessable curricular units, even where they belong to a common transversal component of the program. A student who validates English but fails digital competencies, for example, should retain the validated English component and repeat only the component in which the required learning outcomes have not been achieved. Such an organization would make student progression more transparent, allow remediation to target demonstrated deficiencies, and provide a more accurate record of acquired competencies. It would also permit curricular sequencing appropriate to each field: language competence could be developed progressively across several semesters, digital training could evolve from foundational literacy towards discipline-specific applications, and transversal competencies could be integrated into projects and disciplinary activities rather than treated as administratively bundled additions. The problem is therefore not the inclusion of languages, digital competencies, or Power Skills in university education; their reinforcement is, on the contrary, consistent with the expanded purposes of contemporary higher education. The difficulty lies in assuming that curricular innovation is achieved merely by inserting new content into the existing modular architecture. If these competencies are to constitute substantive educational outcomes rather than formal curriculum requirements, their introduction requires adequate instructional time, coherent sequencing, specialized teaching where necessary, independently identifiable assessment, and meaningful opportunities for practice and consolidation. This implementation problem further illustrates the broader argument developed in this article: expanding the purposes assigned to university education without simultaneously reconsidering curricular architecture and the educational time available for achieving them risks producing formal curricular expansion without equivalent gains in the depth or coherence of student learning.

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the central concern of the present article and provides the basis for the alternative degree architecture developed in the following sections.

1.3 DISCIPLINARY EXPANSION AND THE LIMITS OF PROGRAM DURATION

The educational implications of program duration become particularly apparent when the expanding requirements and internal organization of individual disciplines are considered. In English Studies, for example, undergraduate programs must provide students with foundations across linguistics, literature, cultural studies, academic writing, language proficiency, translation, communication, and research methodology, while increasingly incorporating digital literacy, interdisciplinary perspectives, and transversal competencies. Within the six semesters of the Licence, students are therefore expected not simply to encounter these different areas, but to consolidate language proficiency, acquire disciplinary knowledge across several intellectual traditions, develop analytical and academic writing abilities, gain methodological awareness, and prepare either for postgraduate study or for professional pathways.⁸ Comparable temporal pressures can be observed in Economics and Management, although they may take a

⁸ The pressure created by limited curricular time may be intensified not only by curriculum expansion but also by weaknesses in curricular articulation, including unnecessary duplication and insufficient differentiation between successive levels of instruction. English Studies provides a useful illustration. In some current curricular configurations, the first semester includes a module entitled *Spoken English*, whose content substantially involves introductory phonetics, including speech sounds, their representation, and word stress. Students subsequently encounter phonetics again in *Introduction to Linguistics I* in Semester 3, alongside introductory phonology and morphology, before taking a further module specifically devoted to *Phonetics, Phonology and Morphology* in Semester 5. Some degree of recurrence is, of course, pedagogically desirable when it reflects deliberate progression from introductory exposure to more advanced theoretical understanding and analytical application. The problem arises when substantially similar material is reintroduced without clearly differentiated learning outcomes, increasing conceptual depth, or an explicit progression of competencies. Comparable overlaps may occur in areas such as grammar and composition, where related content can recur across successive modules without the relationship between introductory, intermediate, and advanced levels being sufficiently defined. Composition provides a particularly useful illustration of the distinction between legitimate progression and potentially excessive curricular repetition. A sequence comprising *Paragraph Writing* in Semester 1, *Composition 1* in Semester 2, *Composition 2* in Semester 3, and *Advanced Composition* in Semester 4 can be pedagogically justified if each stage introduces clearly differentiated and progressively more demanding learning outcomes. However, where the successive composition modules remain primarily organized around paragraph and essay structure and the practice of different essay types, the educational return from maintaining composition as a separate curricular component across several semesters becomes less evident. Once students have progressed from paragraph construction to the organization, development, argumentation, documentation, and revision of a coherent academic essay, the next stage need not necessarily consist of another general composition module. A more developmentally efficient sequence could move from *Paragraph Writing* in Semester 1 to *Composition* in Semester 2 and then to an introductory research or academic inquiry component in Semester 3. Such a progression would move students from sentence and paragraph-level organization to extended academic argument and subsequently to the use of writing as an instrument of disciplinary inquiry: formulating research questions, locating and evaluating scholarly sources, engaging with existing literature, integrating and documenting evidence, distinguishing one's own argument from that of sources, and producing elementary research-based academic work. This would not imply reducing the importance of writing after Semester 2. On the contrary, writing development should continue throughout the degree, but increasingly within disciplinary and research contexts through analytical essays, literature reviews, reports, research papers, project work, and other forms of progressively independent academic production. Advanced writing could consequently be integrated into research methodology and upper-level disciplinary modules rather than necessarily retained as a further general composition course. Such an organization would also form an earlier bridge between academic literacy and research initiation, providing students with a longer developmental trajectory before the more independent research expected at Master's level. The relevant curricular principle is therefore not that recurrent writing instruction is inherently redundant, but that recurrence should produce demonstrable progression: once foundational composition has been consolidated, curricular time may be used more effectively by moving from learning how to construct academic texts toward learning how to use academic writing for disciplinary analysis, evidence-based argumentation, and research. Such redundancy is particularly consequential within a six-semester degree because curricular time devoted to unnecessary repetition is time unavailable for disciplinary areas that receive limited coverage, advanced specialization, research initiation, academic writing, interdisciplinary study, or the consolidation of newly introduced competencies. The issue should therefore not be understood as an argument against revisiting foundational knowledge: well-designed curricula necessarily rely on reinforcement, scaffolding, and cumulative learning. Rather, it highlights the need to distinguish pedagogically purposeful recurrence from curricular duplication. A coherent program should make progression explicit by mapping learning outcomes across semesters, identifying prerequisite relationships between courses, differentiating levels of complexity, and ensuring that subsequent modules build demonstrably upon rather than merely reproduce earlier content. Curriculum reform should consequently address not only how much content can be accommodated within a degree, but also how efficiently and progressively the available educational time is organized. In this respect, curricular redundancy

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different form. In some current curricular configurations, competencies intended to support disciplinary learning and professional development are introduced relatively late in the undergraduate trajectory. English-language instruction, for example, may appear in the final semester alongside advanced disciplinary and professional modules. Such sequencing raises a different but related question of curricular coherence: competencies intended to facilitate access to international disciplinary literature, professional communication, and subsequent specialization are likely to have greater educational value when introduced sufficiently early and developed progressively throughout the degree rather than concentrated near its completion. Similar questions arise in other university fields concerning the sequencing of foreign languages, digital literacy, methodological training, and other enabling competencies.⁹ These examples illustrate that the temporal problem concerns not only the total duration of a degree or the amount of content it contains, but also how available curricular time is distributed, sequenced, and progressively organized. Despite differences between disciplines, the underlying educational principle remains the same: complex disciplinary competence cannot be reduced to the accumulation of course content, but requires time for knowledge and skills to be introduced, practiced, connected, consolidated, and progressively integrated.

These disciplinary examples point to a broader tension between expanding educational expectations and finite curricular time. As disciplinary knowledge continues to develop, programs are also expected to incorporate new methodological, digital, interdisciplinary, and professional competencies. The difficulty lies not in the legitimacy of these additions, but in accommodating them without weakening the depth and progression of disciplinary learning. Within fixed temporal boundaries, greater breadth may reduce opportunities for sustained engagement, practice, consolidation, and advanced specialization. The central challenge is therefore to achieve an appropriate balance between the expanding scope of university formation and the educational time required for meaningful learning.

Disciplinary expansion consequently provides another reason for treating program duration as an educational rather than merely administrative variable. Degree programs cannot indefinitely accommodate expanding educational objectives without considering the time, sequencing, and curricular space required for their meaningful achievement. The relevant question is therefore not how many courses or components can formally be accommodated within a degree, but whether students are provided with sufficient opportunities to progress from exposure to understanding, from understanding to application, and ultimately from application to increasingly independent disciplinary competence. Program duration should accordingly be evaluated in relation to the educational processes and forms of progression required to achieve the purposes of a degree, rather than simply in relation to the amount of content that can be distributed across a predetermined number of semesters.

1.4. TRAINING TIME AS AN EDUCATIONAL RESOURCE

The preceding discussion suggests that the debate surrounding the duration of university education extends beyond questions of administrative organization or institutional efficiency. At its core lies a more fundamental educational issue: the relationship between time and learning. Discussions of higher education reform commonly emphasize curriculum design, governance, quality assurance, graduate employability, and the competencies students are expected to acquire. Program duration, however, should itself be considered an educational variable rather than merely a structural characteristic of a degree. Time constitutes one of the fundamental conditions under which learning occurs. Like curriculum, pedagogy, and assessment, it shapes the processes through which students acquire, practice, consolidate, and integrate knowledge and competencies, as well as the extent to which intended learning outcomes can realistically be achieved.

Because university learning develops progressively, training time has educational value not simply as duration but as the space within which learning can be practiced, connected, consolidated, and extended. Its adequacy therefore depends on whether students

reinforces the broader argument of this article: before concluding that program duration is inadequate, it is also necessary to ensure that the time already available is being used coherently, progressively, and without avoidable duplication.

⁹ Other university disciplines illustrate related problems of curricular sequencing and progression. In Geography, for example, increasingly specialized methodological and technical training in areas such as statistics, cartography, research methods, geographic information systems, and territorial analysis may coexist with foreign-language or digital-skills components introduced relatively late in the curriculum. The issue is not the inclusion of such competencies but whether they are introduced sufficiently early to function as instruments for subsequent disciplinary learning. Arabic Studies raises a related question concerning curricular recurrence. Areas such as grammar (naḥw) or phonetic and phonological study may legitimately recur across semesters when successive modules develop progressively higher levels of theoretical and analytical complexity; where such progression is insufficiently differentiated, however, recurrence risks consuming limited curricular time without a corresponding increase in disciplinary competence. These examples point to an important distinction between the nominal duration of a program and the effective training time available for particular learning outcomes. A six-semester Licence provides six semesters administratively, but the effective developmental time available for a given competence may be considerably shorter when it is introduced late, insufficiently integrated with subsequent learning, or repeatedly addressed without clearly increasing levels of complexity.

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are given sufficient opportunities to move from initial exposure to increasingly complex forms of understanding, application, and independent inquiry. From this perspective, time is not external to the learning process: it is one of the conditions that make developmental progression possible.

This developmental perspective has an important implication for degree design: educational objectives carry temporal requirements. Learning outcomes cannot be achieved through their formal inclusion in a curriculum alone; they require sufficient opportunities for introduction, practice, application, feedback, and consolidation. Adding new competencies to a degree therefore entails allocating the educational time necessary for their meaningful development, while preserving the progression required for disciplinary formation. The relevant question is not simply how many learning outcomes a program can formally accommodate, but whether sufficient developmental time is available for students to achieve them at the level expected of the degree.

This relationship between educational objectives and their temporal requirements is directly relevant to Morocco's current higher education reform agenda. As discussed above, PACTE ESRI 2030 has broadened the range of competencies incorporated into undergraduate formation (Ministry of Higher Education, Scientific Research and Innovation, 2024b). From the perspective developed here, this expansion raises a question not only of curricular content but of temporal adequacy: whether the time available within each degree cycle permits these learning outcomes to develop progressively alongside disciplinary formation. Training time should therefore be understood as a finite educational resource whose adequacy must be assessed in relation to the scope, complexity, and expected level of the outcomes assigned to a degree.

The consequences of constrained training time extend beyond curriculum overload. When increasingly complex educational objectives must be accommodated within a limited temporal framework, pressure for curricular coverage can reduce the space available for independent study, supervised research, project-based learning, internships, interdisciplinary exploration, and academic reflection. The resulting problem is therefore qualitative as well as quantitative: a program may formally include the required content and competencies while providing insufficient opportunity for students to engage with them in sufficient depth. The adequacy of training time should consequently be assessed not by curricular coverage alone, but by the depth, coherence, and developmental progression of the learning it makes possible.

The suitability of training time also depends upon how the curriculum itself is organized. Moroccan university programs are formally structured around modules, but the existence of a modular architecture does not in itself ensure curricular flexibility or progressive organization. In many programs, students follow a largely predetermined sequence of modules, leaving relatively limited scope for constructing individualized academic pathways. More importantly for the present argument, formally distributing educational requirements across modules does not establish that sufficient developmental time has been allocated to the competencies they are intended to produce. Curricular organization therefore affects the educational value of program duration: the same nominal number of semesters¹⁰ may provide very different opportunities for learning depending on when particular competencies are introduced,

¹⁰ A distinction may therefore be drawn between the nominal duration of a program and the effective training time available for particular learning outcomes. Nominal duration refers to the formal period allocated to a degree, for example, six semesters in the Moroccan Licence, whereas effective training time refers to the portion of that period during which a particular body of knowledge or competence can actually be introduced, practiced, applied, reinforced, and consolidated. The two need not coincide. Curricular organization is particularly relevant in this respect. Under Moroccan national pedagogical frameworks, the module constitutes the fundamental unit of training, although its precise internal organization may vary according to the degree framework concerned (Ministry of National Education, Vocational Training, Higher Education and Scientific Research, 2021). The formal distribution of modules across semesters therefore does not necessarily reveal how much developmental time is effectively allocated to each distinct area of learning. This differs from course-unit systems, such as those commonly found in U.S. higher education, in which individual subjects normally constitute separately identified, credited, and assessed curricular units, often within a combination of program requirements and electives. The distinction is not merely terminological: it concerns the extent to which the curricular organization makes the allocation, progression, and validation of particular areas of learning visible. Sequencing further affects effective training time. A competence introduced only in the later stages of a program has a substantially shorter developmental trajectory than the formal duration of the degree might suggest, while unnecessary curricular duplication, insufficient differentiation between successive levels, or weak integration between modules may further reduce the educational use made of the time formally available. Conversely, early introduction followed by progressively more demanding opportunities for application and consolidation can extend the effective developmental trajectory of a competence without changing the nominal duration of the degree. Program duration should therefore be considered not only quantitatively, in terms of semesters or instructional hours, but developmentally, in terms of the effective time available for achieving particular learning outcomes.

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how they are sequenced, whether they are progressively reinforced, and how effectively they are integrated with subsequent disciplinary work.

The temporal dimension of learning is particularly important for programs intended to prepare students for postgraduate study and research. Research competence cannot be developed through an isolated methodology module or a final dissertation alone; it requires a progressive trajectory involving engagement with scholarly literature, academic writing, methodological practice, supervised inquiry, and increasing intellectual independence. Critical inquiry similarly develops through repeated opportunities to analyze competing perspectives, evaluate evidence, and formulate and defend reasoned interpretations. The adequacy of program duration therefore depends partly on whether each degree cycle provides sufficient educational space for these capacities to develop progressively alongside disciplinary formation.

The changing place of research training within the Moroccan Licence provides a particularly revealing illustration of this temporal issue. Earlier curricular arrangements provided space for a final project (*projet de fin d'études*, PFE), which could introduce students to supervised inquiry and, in some programs, to the preparation of an extended piece of academic work. Under the more recent Licence architecture, however, the compulsory PFE has ceased to constitute a general component of the degree,¹¹ while other educational requirements, including foreign languages, digital competencies, transversal skills, and professional preparation, have acquired greater curricular prominence. This development raises an important question of educational sequencing rather than simply one of curricular content. If sustained research initiation is largely postponed until the Master's cycle, students may enter postgraduate education without having experienced a sufficiently progressive transition from methodological instruction to supervised and increasingly independent inquiry. The two-year Master's degree must then accommodate advanced disciplinary specialization and the development of research competence while, in many programs, culminating in a substantial supervised research project. From this perspective, the absence of a compulsory research component at Licence level does not in itself resolve the temporal demands associated with research formation; it may instead concentrate a greater part of that developmental process within an already limited Master's cycle. A fourth year at Licence level could provide additional curricular space for systematic research initiation, enabling students to consolidate methodological competence, academic writing, engagement with disciplinary literature, and supervised inquiry before progressing to the more advanced and increasingly independent research expected at Master's level.

Reconsidering program duration does not imply that longer programs automatically produce higher-quality graduates. Additional time has educational value only when it is supported by coherent curriculum design, effective teaching and assessment, adequate

¹¹ The disappearance of the compulsory PFE from the general Licence architecture should also be considered against the practical conditions under which undergraduate research projects must be organized in massified university systems. Although the present discussion does not assume that these considerations constituted the officially stated reasons for the reform, compulsory individual research projects can become particularly difficult to sustain where very large graduating cohorts coexist with limited numbers of faculty members available for supervision. The difficulty concerns not only the allocation of supervisors but also the time required for meaningful supervision, repeated feedback on students' work, evaluation of completed projects, organization of oral defenses, constitution of examination panels, and the associated administrative workload. Eliminating the PFE, however, is not the only possible response to these constraints. Research initiation could instead be redesigned according to institutional capacity. Students might undertake supervised projects individually where feasible, in small groups where appropriate to the discipline, or through research seminars in which a faculty member supervises a limited cluster of related projects. Not every project would necessarily require a conventional lengthy defense before a multi-member jury; shorter individual oral presentations or verification sessions could be used to establish students' understanding of their work and their capacity to explain and defend the methodological and analytical choices they have made. Such verification has acquired additional importance with the growing availability of generative artificial intelligence and other forms of unauthorized assistance, which complicate judgments concerning the authorship and intellectual authenticity of submitted written work. Makhad (2026), in discussing academic integrity and assessment governance in Moroccan universities, argues that assessment systems should move beyond reliance on surveillance and detection toward designs that generate more trustworthy evidence of student learning, and specifically identifies oral verification as a means of confirming students' authorship and understanding of written assignments, projects, and dissertations. Research projects could similarly be evaluated through a combination of the written product, evidence of the research process, progressive supervisory assessment, and selective or systematic oral verification. The practical difficulties associated with mass undergraduate research should therefore encourage the development of more scalable forms of research supervision and assessment rather than the abandonment of research initiation itself. A four-year Licence could make such arrangements considerably more feasible by distributing research preparation and supervised inquiry progressively across a longer undergraduate trajectory rather than concentrating them within the final semester.

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resources and staffing,¹² and appropriately sequenced learning. Extending a poorly organized curriculum may simply prolong existing weaknesses, while better curricular design can improve the educational use of the time already available. The relevant issue is therefore not duration in isolation, but the relationship between nominal program duration, curricular organization, and effective training time. Extending a degree cycle is justified only where its learning outcomes require additional developmental space that cannot be adequately provided through improved organization of the existing curriculum.

Recognizing training time as an educational resource has broader implications for the design and evaluation of university degrees. Degree architecture must be assessed not only in structural or administrative terms, but also according to its capacity to provide the temporal conditions required for achieving the purposes assigned to each cycle. This perspective provides the basis for examining the broader debates on higher education reform, policy transfer, and degree architecture developed in the following section.

As a result, these developments reveal a structural tension at the center of contemporary Moroccan university education. The duration of the principal degree cycles has remained relatively stable while the educational purposes assigned to them have expanded, disciplinary knowledge has continued to develop, and universities have been expected to respond simultaneously to massification, research development, professional preparation, linguistic and digital competencies, and increasingly diverse forms of transversal learning. At the same time, the analysis has shown that duration cannot be considered independently of curricular organization: redundancy, weak sequencing, late introduction of enabling competencies, and insufficiently progressive research training can reduce the effective educational use of the time already available. The problem is therefore neither simply that Moroccan degree programs are too short nor that they contain too much content. It concerns the relationship between educational purpose, curricular organization, and effective training time. Any reconsideration of degree architecture must consequently address these dimensions together, asking both whether existing curricular time is used coherently and whether, even under improved organization, the duration of each cycle provides sufficient developmental space for the outcomes expected of contemporary university education.

2. LITERATURE REVIEW AND THEORETICAL FRAMEWORK

The preceding discussion has argued that the adequacy of university degree duration should be assessed in relation to the educational purposes assigned to each degree cycle rather than treated as a fixed administrative characteristic of program organization. This proposition invites a broader examination of the literature on higher education reform and degree architecture. How have higher education systems responded to changing educational, scientific, and societal expectations? To what extent has existing research examined the transfer and adaptation of degree structures across national contexts? And, more specifically, how has the relationship between program duration, educational objectives, and degree architecture been conceptualized? Addressing these questions is

¹² The question of staffing concerns not only the number of academic personnel available but also how responsibilities are organized within the teaching body. Under the current statutory framework, the Moroccan public university system distinguishes different academic ranks, notably *professeur de l'enseignement supérieur* (PES; Professor of Higher Education), *professeur de conférences habilité* (PCH; Habilitated Associate Professor), and *professeur assistant* (PA; Assistant Professor). Such differentiation could be used more systematically as an academic and pedagogical resource rather than functioning primarily as a structure of career progression. In particular, advancement through academic ranks could entail progressively greater responsibilities for curriculum leadership, pedagogical coordination, research supervision, mentoring, and the development of the academic community. Senior academics could assume a stronger role in designing and periodically reviewing programs within their fields of expertise, ensuring the progression and articulation of courses, coordinating learning outcomes and assessment expectations, and helping to maintain coherence across successive stages of study. PCH and PA could participate in these responsibilities according to their experience and expertise, while less experienced academics could benefit from structured pedagogical and research guidance as they progressively develop greater responsibility and autonomy. Such an arrangement should not be conceived as a rigid administrative hierarchy in which senior academics exercise routine control over the intellectual or pedagogical choices of junior colleagues. Academic freedom, disciplinary expertise, and collegiality remain essential principles of university teaching. Rather, the objective would be to establish differentiated but collaborative academic responsibility in which experience and advancement entail corresponding obligations toward program quality, institutional continuity, and the development of colleagues. Academic rank alone should therefore not automatically confer authority in areas outside an individual's expertise: responsibilities for program design, course coordination, supervision, and mentoring should reflect relevant disciplinary specialization, pedagogical experience, and demonstrated academic competence. In large or rapidly expanding university programs, such organization could also contribute to making better use of limited human resources while reducing problems of curricular duplication, weak sequencing, inconsistent assessment expectations, and insufficient coordination between introductory and advanced teaching. The more specific relationship between academic rank, teaching level, workload, and research supervision is considered below in relation to the progressive organization of degree cycles.

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essential for situating the Moroccan experience within broader international debates, identifying the limitations and gaps in existing approaches, and establishing the theoretical framework that informs the proposal developed in this article.

2.1 INTERNATIONAL EVOLUTION OF HIGHER EDUCATION REFORMS

Higher education systems have undergone substantial transformation over the past four decades as universities have responded to massification, globalization, technological change, expanding scientific knowledge, and the growing importance of research and innovation. These developments have not affected only what universities teach; they have also prompted governments and institutions to reconsider how university education itself is organized, including the duration and structure of degree cycles, curricular frameworks, progression pathways, and the educational purposes assigned to successive stages of study. Higher education reform has consequently become a continuing process of institutional adaptation rather than an occasional adjustment to an otherwise fixed model (Clark, 1983; Marginson, 2016). From this perspective, degree architecture should be understood as historically contingent rather than educationally immutable: the organization and duration of university degrees may legitimately be reconsidered when the purposes, conditions, and expectations of higher education change.

Within this broader international reform movement, the Bologna Process represents one of the most influential attempts to reorganize university degree structures across national systems. Rather than revisiting its institutional origins and principal mechanisms, already outlined above, what is particularly relevant to the present study is its reorganization of higher education around comparable cycles and the consequences of this restructuring for the temporal architecture of university degrees. Although the Bachelor-Master-Doctorate structure provided a common framework for comparability, it did not prescribe a single uniform duration for each cycle; first-cycle programs of different lengths and ECTS configurations have continued to coexist within the European Higher Education Area (European Commission/EACEA/Eurydice, 2020). This distinction is important because it demonstrates that international harmonization does not necessarily require temporal uniformity and that program duration can remain responsive to national, institutional, and disciplinary educational requirements.

The restructuring associated with the Bologna Process has nevertheless generated substantial debate concerning the educational consequences of structural convergence. Research has drawn attention to conflicts between standardization and curricular diversity and to the challenges of accommodating increasingly ambitious educational objectives within reorganized and, in some contexts, shorter degree cycles (Kehm & Teichler, 2006; Neave, 2003; Teichler, 2008; Zgaga, 2006). Particularly relevant to the present study is the question of whether the temporal organization of these cycles provides sufficient space for disciplinary progression, methodological development, research preparation, and the gradual formation of intellectual autonomy (Sursock & Smidt, 2010; Teichler, 2008). These debates do not establish that a three-year Bachelor's degree is inherently inadequate; rather, they demonstrate that program duration should itself remain subject to educational evaluation rather than being treated as an unquestioned consequence of structural harmonization.

Beyond Europe, the continued diversity of degree structures further demonstrates that international development in higher education has not produced a single temporal model of university education. In the United States and Canada, four-year Bachelor's degrees remain widespread, allowing undergraduate education to combine disciplinary specialization with broader curricular components and, depending on the institution and program, electives, internships, and opportunities for undergraduate research. Four-year undergraduate programs also remain common in China, despite the substantial expansion and transformation of its higher education system. These examples are not presented as models for Morocco to reproduce, nor do they establish that four years is inherently preferable to three. Rather, they demonstrate that internationally recognized higher education systems can organize undergraduate formation within different temporal architectures. International comparability therefore need not imply uniformity of program duration; the relevant question is whether the time allocated to a degree is coherent with the educational purposes, curricular organization, and learning outcomes assigned to it.

International experience therefore suggests that degree architecture is better understood as a context-dependent and revisable component of higher education policy than as a universally fixed model. Comparative experience can inform reform, but the educational relevance of any particular structure ultimately depends on the purposes, conditions, and capacities of the system in which it operates. For Morocco, the question consequently shifts from the adoption of an internationally recognizable model to the ways in which such models are interpreted, adapted, and potentially redesigned in relation to national educational objectives. This shift requires turning to the literature on policy borrowing and policy transfer.

2.2 POLICY BORROWING, POLICY TRANSFER, AND DEGREE STRUCTURE REFORM

The international circulation of higher education reforms has generated a substantial body of scholarship on policy borrowing and policy transfer. A central insight of this literature is that educational reforms do not move unchanged between systems: their meanings, purposes, and institutional forms are reinterpreted as they encounter different historical, political, cultural, socio-

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economic, and educational contexts. The effectiveness of a reform therefore cannot be inferred simply from its operation elsewhere, but must be assessed in relation to the conditions of the receiving system. This perspective is particularly relevant to degree-structure reform, since an architecture developed within one educational environment may not necessarily provide the same educational functions, or produce comparable outcomes, when transferred to another.

Among the most influential contributions to this field is the work of Phillips and Ochs (2004), who conceptualize policy borrowing as a dynamic process rather than a simple act of imitation. Their framework describes educational borrowing through stages involving attraction, decision, implementation, and internalization or indigenization, emphasizing that policies are progressively reinterpreted as they encounter the priorities and institutional conditions of the receiving system. Policy borrowing therefore involves selective adaptation rather than mechanical replication.¹³ This perspective is complemented by Steiner-Khamisi's (2004) analysis of the political dimensions of policy borrowing, which demonstrates that reforms may acquire attractiveness not only through evidence of educational effectiveness but also through the international legitimacy associated with particular models or reference systems. The adoption of an internationally recognized reform should therefore not itself be treated as evidence of its educational suitability for the receiving system. Together, these perspectives shift the analytical question from whether a reform has been successfully adopted elsewhere to how, why, and under what conditions it can serve the educational purposes of the system into which it is introduced.

The contextual character of policy transfer is further reinforced by scholarship on globalization and educational change. Dale (1999) argues that globalization can generate common pressures for reform without eliminating substantial national variation in how educational systems respond to them. Schriewer (1992, 2000), through the concept of *externalization*, similarly shows how reference to educational models elsewhere may provide legitimacy for domestic reform while those models are simultaneously reinterpreted within national contexts. More recent work on global education policy has further demonstrated that apparently convergent reforms can assume substantially different forms through implementation as they interact with institutional capacities, political priorities, and established educational traditions (Verger et al., 2018). In particular, these perspectives reinforce a distinction central to the present study: international convergence in reform agendas does not necessarily entail convergence in the institutional forms through which those agendas should be pursued.

The Bologna Process provides a useful illustration of this distinction. As discussed above, convergence around a common degree framework has coexisted with variation in program duration, curricular organization, and national implementation. From a policy-transfer perspective, such variation need not be understood as incomplete harmonization; it can reflect the translation of shared principles into different institutional and educational contexts. Bologna is therefore relevant here not as a model to be reproduced uniformly, but as evidence that international compatibility can coexist with nationally differentiated forms of implementation.

Policy transfer concerns not only the formal architecture of degrees but also the educational functions performed by the arrangements through which that architecture operates. The adoption of a three-cycle structure, modular organization, or credit-based terminology

¹³ Contextual adaptation need not be understood merely as modifying an educational model developed elsewhere. A national higher education system may legitimately draw upon international experience without treating any existing foreign system as a template that must ultimately be reproduced. Comparative analysis and international benchmarking are valuable precisely because they make it possible to identify alternative institutional arrangements, examine their advantages and limitations, and learn from the experience of systems operating under different conditions. Their function, however, should be informative rather than prescriptive. The relevant question is not which existing international model Morocco should copy, but what can be learned from different systems in designing an architecture capable of responding to Morocco's own educational purposes, institutional capacities, student population, disciplinary needs, research ambitions, labor-market conditions, and long-term national priorities. Such an approach also allows reform to move beyond the conventional distinction between adopting and adapting foreign models. A country may combine elements observed internationally, retain aspects of its own educational traditions that remain effective, modify arrangements that no longer serve their purposes, and develop institutional solutions for which no exact foreign equivalent exists. Innovation in higher education policy should therefore be regarded as legitimate at the level of degree architecture itself: international comparability does not require institutional uniformity. What matters is that qualifications remain academically credible, intelligible, and sufficiently compatible with international frameworks to permit recognition, mobility, and cooperation, while their internal organization is determined primarily by the educational outcomes the national system seeks to achieve. In this sense, benchmarking should serve as an instrument of informed policy learning rather than policy imitation. The objective should not be to reproduce the European, North American, or any other established architecture, but to construct a coherent Moroccan model whose effectiveness can subsequently be evaluated against its own clearly defined educational objectives and, potentially, offer lessons to other systems confronting comparable challenges.

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does not necessarily produce functionally equivalent educational systems. As the Moroccan case discussed above illustrates, similarly designated curricular structures may differ in their pedagogical autonomy, assessment and validation, relationship to progression, and capacity to support curricular choice or accumulation. Successful policy transfer therefore cannot be assessed solely through the presence of recognizable institutional forms or terminology; it also requires examining whether those forms perform the educational functions associated with them. In this sense, formal convergence in degree architecture may coexist with substantial differences in its pedagogical operation.

From this perspective, the Moroccan experience should not be interpreted simply as the adoption of a European degree structure but as part of a broader process of educational policy transfer and subsequent institutional adaptation. The relevant question is therefore not whether the LMD architecture should be accepted or rejected because of its external origins, but whether its present organization, including the duration assigned to each degree cycle, continues to correspond to Morocco's educational objectives, institutional capacities, and developmental priorities. Policy borrowing should not be understood as a one-time decision whose institutional consequences become permanent once implementation has occurred; contextual adaptation necessarily includes the capacity to reassess, revise, or redesign borrowed arrangements in light of accumulated experience and changing national needs.¹⁴ After more than two decades of implementation, the Moroccan LMD architecture can therefore legitimately be evaluated not primarily according to its conformity with the model from which it was initially inspired, but according to its educational performance within the Moroccan context. This shifts the debate from international conformity towards contextual adequacy and provides the conceptual basis for reconsidering both the organization and duration of university degree cycles in the proposal developed in this article.

2.3 RESEARCH GAP

The preceding review shows that higher education scholarship has extensively examined the transformation of university systems, the international circulation and contextual adaptation of educational reforms, and the reorganization of degree structures. This literature provides important insights into why higher education systems change and how institutional models are transferred, adapted, and implemented across different national contexts. It also demonstrates that degree architectures are historically contingent and may legitimately vary in response to national educational purposes and institutional conditions.

Yet one dimension of degree architecture has received comparatively limited attention as an educational question in its own right: program duration. Existing research and policy frameworks frequently treat the duration of Bachelor's, Master's, and Doctoral degrees as an established structural characteristic of particular higher education systems rather than asking how that duration should be educationally determined. As a result, the relationship between the time allocated to a degree cycle and the educational purposes

¹⁴ An important dimension of contextual adaptation concerns the participation of those directly engaged in teaching and training. Higher education reforms are frequently designed primarily through ministerial, administrative, expert, or institutional decision-making structures, while academic staff may be consulted only to a limited extent or become principally involved at the implementation stage. Yet university instructors possess a form of professional and experiential knowledge that is difficult to obtain from policy documents, statistical indicators, or administrative evaluation alone. Through sustained interaction with successive cohorts of students, they encounter directly the practical effects of curriculum organization, program duration, sequencing, assessment rules, class size, student preparedness, language difficulties, learning progression, academic misconduct, research supervision, and the availability or inadequacy of institutional resources. Their experience can therefore reveal discrepancies between the formal design of a reform and its actual pedagogical operation that may remain less visible at the level of central administration. This does not imply that academic staff should alone determine higher education policy, which necessarily involves students, administrators, researchers, employers, professional bodies, public authorities, and other relevant participants. It does imply, however, that instructors should be treated as substantive participants in reform design rather than primarily as implementers of decisions formulated elsewhere. Meaningful participation should consequently occur before major curricular and structural decisions are finalized and should involve mechanisms capable of incorporating disciplinary and pedagogical expertise into policy design, including representative consultations, departmental and disciplinary contributions, structured surveys, working groups, pilot programs, and systematic feedback from implementation. Consultation should also be sufficiently broad to avoid substituting the views of a small number of appointed representatives for the diversity of experience found across disciplines, institutions, regions, and open- and selective-access programs. This issue is particularly relevant in Morocco, where earlier assessments of the LMD reform have already drawn attention to its top-down character and to the limited involvement, preparation, or mobilization of university actors in its conception and implementation (Ghouati, 2009; CSEFRS, 2018). The lesson for future reform is therefore not merely that academic staff should be better prepared to implement decisions already taken, but that their accumulated pedagogical knowledge should contribute to defining the problems to be addressed, evaluating proposed solutions, testing their feasibility, and assessing their effects after implementation. A reform intended to improve teaching and learning is more likely to respond to actual educational conditions when those who teach within those conditions participate meaningfully in its conception, evaluation, and continuing revision.

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assigned to that cycle remains insufficiently theorized. In particular, comparatively little attention has been given to whether program duration provides adequate temporal conditions for the progressive acquisition of disciplinary knowledge, methodological competence, research capacity, professional preparation, and intellectual autonomy, or to whether substantial changes in the expected outcomes of university education should themselves prompt reconsideration of the temporal architecture through which those outcomes are pursued.

This gap becomes particularly significant in higher education systems whose degree structures have been substantially influenced by internationally circulating models. Although the policy-borrowing literature emphasizes contextual adaptation at the point of transfer and implementation, less attention has been devoted to whether borrowed degree architectures should subsequently be reassessed as national educational purposes, institutional conditions, and expectations of graduates evolve. This question is especially relevant to Morocco after more than two decades of experience with the LMD architecture. Moroccan higher education research and policy evaluation have examined multiple dimensions of reform, including governance, quality assurance, curriculum modernization, employability, and system performance. Program duration, however, has received considerably less attention as an educational variable in its own right and in relation to the depth, sequencing, and consolidation of learning across degree cycles. The continuing adequacy of the time allocated to the Licence and Master's therefore warrants examination not simply because these programs are comparatively short or because alternative durations exist elsewhere, but because the range and complexity of the educational purposes assigned to them have expanded.

The present article addresses this gap by conceptualizing program duration as an educational variable rather than a predetermined administrative characteristic of degree organization. It argues that the architecture and duration of university degree cycles should be derived from the educational purposes assigned to them and periodically reassessed as those purposes evolve. From this perspective, the coherence of degree architecture depends on the relationship between intended learning outcomes, the processes through which knowledge and competencies are progressively developed, and the educational time required for those processes to occur meaningfully. The article therefore shifts the analytical question from how much content can be accommodated within an established number of semesters to how much structured educational time is required to achieve the purposes assigned to each degree cycle. This proposition provides the basis for the analytical approach developed in the following subsection and, subsequently, for reconsidering the temporal architecture of Moroccan university degrees.

2.4 RECONCEPTUALIZING UNIVERSITY DEGREE ARCHITECTURE

The preceding discussion suggests that university degree architecture should not be understood simply as the institutional organization of successive qualification levels or as the outcome of international harmonization processes. Rather, it should be conceived as an educational structure designed to support the progressive achievement of clearly defined learning outcomes across successive stages of university education. From this perspective, degree architecture is not an end in itself but a pedagogical and policy instrument whose coherence depends upon the extent to which its successive cycles provide appropriate conditions for disciplinary formation, research development, specialization, professional preparation, and increasing intellectual autonomy.

The present article therefore advances a purpose-oriented conception of university degree architecture. Its central premise is that the organization and duration of degree cycles should be determined primarily by the educational purposes assigned to each stage of higher education rather than inherited as fixed institutional arrangements or reproduced from externally developed models. Program duration, in this conception, constitutes an educational resource whose adequacy must be assessed in relation to what students are expected to achieve within each cycle. The relevant question is therefore not how many years a university program should last in the abstract, but what processes of learning and development are required to achieve the purposes assigned to a particular degree and how much structured educational time those processes reasonably require.

This reconceptualization reverses a common way of approaching degree design in which program duration is treated as a predetermined constraint and curricula are subsequently organized within the time available. The purpose-oriented approach advanced here begins from the opposite direction. It takes the educational purposes and expected outcomes of a degree cycle as its starting point, identifies the processes of learning, practice, consolidation, and progressive development required to achieve them, and only then considers the temporal conditions necessary for those processes to occur meaningfully. Program duration should therefore be understood as an outcome of educational design rather than its unquestioned starting point. Put differently, university degree architecture should be derived from educational purpose rather than educational purpose being compressed to fit an inherited temporal structure.

A purpose-oriented approach also provides a basis for understanding legitimate variation between higher education systems. If program duration is derived from educational purposes and the conditions required to achieve them, no particular degree architecture can be assumed to be universally optimal. Different systems may reasonably adopt different temporal and organizational

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arrangements according to their educational priorities, institutional capacities, research ambitions, professional requirements, and broader societal objectives. International compatibility remains important for qualification recognition, academic mobility, scientific cooperation, and exchange, but compatibility need not require identical internal organization or program duration. Degree structures should therefore remain open to periodic reassessment as educational purposes and institutional conditions evolve.

Within this conceptual approach, the Moroccan debate moves beyond the question of whether the current LMD structure conforms to international standards. The more fundamental issue is whether the existing duration of university degree cycles provides adequate conditions for achieving the educational purposes that Moroccan universities increasingly seek to fulfill. Consequently, the proposal developed in this article should not be interpreted simply as an extension of university studies. Rather, it represents the application of a purpose-oriented conception of degree architecture in which program duration, curriculum organization, progressive specialization, research development, and professional preparation are treated as interdependent dimensions of a coherent educational system.

The conceptual relationships developed throughout this section are synthesized in Figure 1. The model represents university degree architecture not as a predetermined institutional arrangement, but as the outcome of a purpose-oriented process in which educational purposes, national higher education conditions, and intended learning outcomes inform the learning and developmental processes required of students. These processes, in turn, provide the basis for determining the training time necessary for their progressive achievement. The figure also shows how this general reasoning is translated, in the Moroccan context examined in this article, into the proposed temporal architecture of a four-year Bachelor's degree, a three-year Master's degree, and a five-year Doctorate structured according to a 2+3 model.

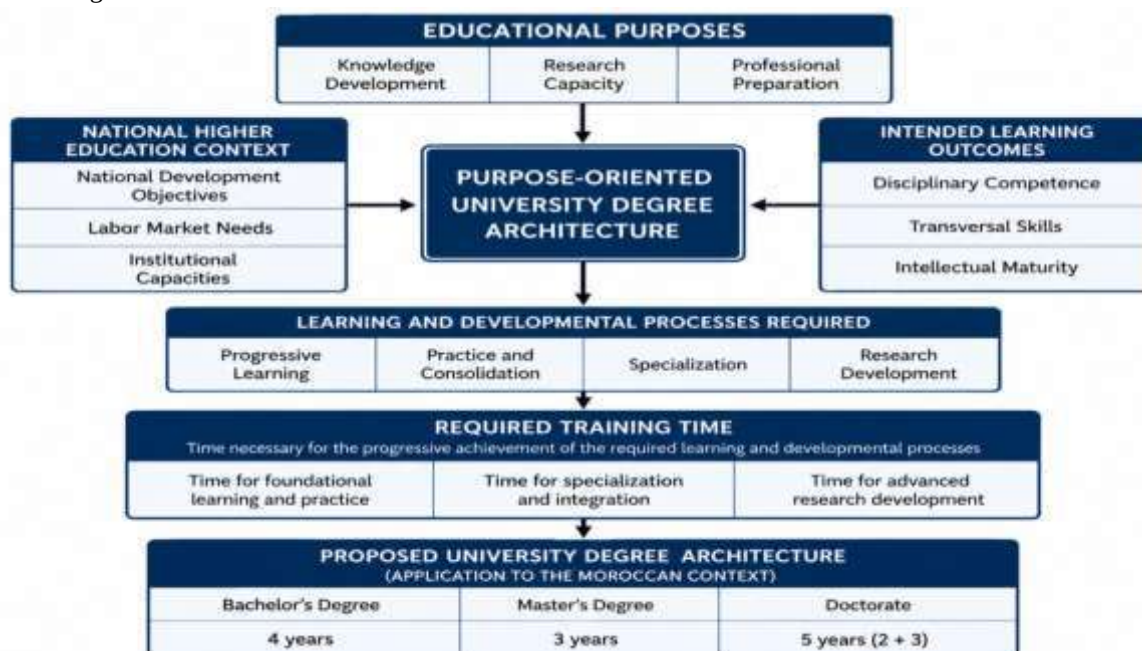


Figure 1. Purpose-Oriented Model for University Degree Architecture.

Figure 1 makes explicit the distinction between the principles that guide degree design and the particular architecture proposed for their implementation in Morocco. At the conceptual level, the model proceeds from educational purposes, national conditions, and intended learning outcomes to the processes through which those outcomes can realistically be developed, including progressive learning, practice and consolidation, specialization, and research development. Training time consequently enters the model as a derived educational requirement: its adequacy depends upon the time needed for these processes to occur with sufficient depth and continuity. The 4+3+5 architecture constitutes the proposed application of this reasoning rather than a universal formula derived independently of context. The four-year Bachelor's, three-year Master's, and five-year Doctorate (2+3) must therefore be justified by the specific educational functions assigned to each cycle and by the ways in which the additional time would be organized and used. These questions provide the point of departure for the proposal developed in the following section.

Taken together, these relationships provide the conceptual basis for reconsidering the temporal organization of Moroccan university education. They also establish the criterion against which any alternative architecture should be assessed: not whether it reproduces an established international model, but whether its organization and duration provide credible educational conditions for achieving

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the purposes assigned to each degree cycle. On this basis, the following section examines the proposed 4+3+5 architecture and the educational functions assigned to the additional time within each cycle.

3. TOWARDS A PURPOSE-ORIENTED ARCHITECTURE OF UNIVERSITY DEGREES

The analysis developed in the preceding sections suggests that the question confronting Moroccan higher education is not simply whether university programs should be extended, but how degree architecture can be redesigned to better support the educational purposes assigned to each cycle of higher education. The objective is therefore not to advocate longer programs as an end in themselves, but to establish a more coherent relationship between program duration, progressive learning, research development, specialization, and graduate preparedness. Guided by the purpose-oriented framework developed above, this section proposes a new architecture of university degrees for Morocco based on a four-year Bachelor's degree, a three-year Master's degree, and a five-year Doctorate. Before presenting the proposed structure, however, it is necessary to establish the educational principles that should guide any comprehensive reform of university degree architecture.

3.1 PRINCIPLES FOR PURPOSE-ORIENTED UNIVERSITY DEGREE ARCHITECTURE

The analysis developed in the preceding sections suggests that redesigning university degree architecture requires more than extending the duration of academic programs or reorganizing existing curricula. Any meaningful reform must be guided by a coherent set of educational principles capable of aligning degree structures with the contemporary missions of higher education and the evolving needs of Moroccan society. In this perspective, university degree architecture should be conceived as an integrated educational framework whose organization, duration, and progression are determined by the educational purposes assigned to each degree cycle rather than by inherited institutional arrangements or externally borrowed models. Consequently, the proposed reform rests upon a number of interrelated principles that together provide the educational rationale for a new architecture of university degrees.

The first principle is the alignment between program duration and educational objectives. As established in the preceding sections, training time should be treated as an educational resource whose adequacy depends upon the knowledge, competencies, research capacities, and professional abilities expected of graduates at each stage of their academic development. The proposed architecture therefore takes the educational purposes of each degree cycle as the basis for determining its temporal organization, rather than treating duration as a fixed institutional parameter within which those purposes must be accommodated.

A second principle concerns the progressive development of knowledge and competencies. Each degree cycle should be organized as a developmental sequence in which successive stages build upon previously acquired knowledge and progressively increase the level of disciplinary complexity, methodological competence, analytical reasoning, research engagement, and intellectual autonomy expected of students. Progression should therefore be reflected not only between the Bachelor's, Master's, and Doctoral cycles, but also within each cycle, so that additional training time translates into demonstrably higher levels of learning rather than simply a greater number of courses or modules. Such progression also has implications for the organization of academic responsibilities: increasingly advanced levels of study should be accompanied by an appropriate distribution of teaching, research supervision, curriculum coordination, and mentoring responsibilities across academic ranks and levels of experience.¹⁵

¹⁵ Differentiation between academic ranks could also be reflected more explicitly in the distribution of teaching, research, supervision, and academic responsibilities. A coherent principle would associate increasing academic seniority with progressively greater responsibility for advanced teaching, research supervision, program leadership, curriculum coordination, mentoring, and research leadership. Within such an arrangement, PAs could assume a substantial share of introductory and foundational teaching, particularly during the early stages of undergraduate study; PCHs could combine substantial teaching with greater responsibility for intermediate and specialized courses, supervision, coordination, and research; and PESs could devote a greater proportion of their academic activity to advanced courses requiring substantial disciplinary expertise or close integration with current research, as well as to Master's and doctoral supervision, program development, research leadership, and the mentoring of less experienced colleagues. This distribution should not be mechanically determined by rank: disciplinary specialization, demonstrated expertise, pedagogical competence, and program needs must remain decisive, and introductory teaching should not be regarded as academically less important, since the quality of foundational instruction conditions subsequent learning. Senior academics should therefore continue to contribute to the design and coordination of foundational courses even when a greater proportion of their own teaching is concentrated at advanced levels. Teaching obligations could follow the same differentiated logic. Under the current framework, PES has a lower statutory teaching obligation, 240 hours annually, than the other academic ranks, for which the obligation is 300 hours. A more coherent differentiation could extend this principle across the three ranks. The present article therefore proposes, as a possible reference distribution, approximately eight hours of direct teaching per week for PES, ten hours for PCH, and twelve to fourteen hours for PA. For PA, twelve hours could constitute the normal reference load when teaching principal or core courses, while the load could extend to fourteen hours when part of the service consists of elective, transversal, or

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The third principle is the systematic integration of research throughout the educational process. In contemporary universities, research should not be confined to doctoral studies or treated as an isolated component of postgraduate education. Rather, research literacy, academic writing, critical inquiry, and methodological training should be progressively developed from the undergraduate level onwards, allowing students to acquire increasing levels of research competence throughout their academic trajectory. By embedding research within all degree cycles, universities strengthen not only postgraduate education but also the analytical and problem-solving capacities expected of graduates entering professional life.

A fourth principle emphasizes the need to balance disciplinary specialization with broader intellectual formation. While increasing specialization is essential in many scientific and professional fields, contemporary graduates must also demonstrate transversal competencies, including communication, digital literacy, critical thinking, teamwork, ethical reasoning, and adaptability to rapidly changing professional environments. University degree architecture should therefore create sufficient educational space for the simultaneous development of specialized disciplinary expertise and transferable competencies, avoiding the false opposition between professional preparation and broad academic education.

The fifth principle concerns contextual adaptation. As established in the preceding discussion of policy transfer, international comparability and academic mobility do not require the uniform reproduction of degree structures across national systems. The organization and duration of university degrees should therefore be adapted to national educational priorities, institutional capacities, labor-market needs, research ambitions, and broader societal expectations. In the Moroccan context, this means that degree architecture should be assessed and redesigned according to the educational challenges and objectives of the national higher education system while maintaining the international legibility and comparability of its qualifications.

Finally, the proposed framework is guided by the principle of coherence between degree architecture and long-term national development. Universities play a central role in the production of knowledge, innovation, professional qualification, and human capital development. The organization of university education should therefore contribute not only to individual student success but also to the broader objectives of scientific advancement, economic competitiveness, public sector modernization, and sustainable national development. Degree architecture should consequently be understood as a strategic policy instrument through which higher education contributes to the country's long-term educational, scientific, and socio-economic aspirations.

other complementary courses. Where the required teaching service cannot be completed within the academic's home department, the remaining hours could also be provided in other departments or programs in which the academic possesses the appropriate disciplinary competence. This would be particularly relevant to transversal subjects: faculty members in English departments, for example, could provide English-language instruction to students in other departments when their teaching obligations cannot be fully assigned within their home department. Such cross-departmental teaching would allow universities to make more efficient use of existing academic expertise while responding to curricular needs across programs, provided that it is academically appropriate and institutionally coordinated. These patterns should not be interpreted as differences in the overall amount of academic work but as differences in its composition: reduced direct teaching at higher ranks should correspond to progressively greater responsibilities for advanced teaching, postgraduate supervision, research leadership, program and curriculum development, mentoring, and coordination, while the higher direct-teaching obligation proposed for PA should remain compatible with sufficient protected time for research, publication, professional development, and progression toward higher academic ranks. The precise balance could vary across disciplines and institutional contexts, but the underlying principle should be that academic advancement transforms the composition, rather than reduces the intensity, of academic work. Research supervision could follow a similarly progressive model. PES would normally assume the greatest responsibility for advanced research supervision, particularly doctoral research and complex Master's projects, while PCHs could undertake substantial supervisory responsibilities within the applicable regulatory framework and participate with PES in advanced supervision where appropriate. Structured co-supervision or participation in research guidance could also enable less experienced academics to develop supervisory competence, with PA participating alongside PCH or PES where regulations permit and where such participation serves a genuine formative purpose. Supervision should thus be understood as an academic competence that develops progressively through experience rather than as a responsibility that appears in identical form once a particular administrative threshold has been crossed. Such a model could strengthen the preparation of future supervisors while improving continuity between undergraduate education, postgraduate formation, and research. More broadly, advancement through the academic ranks would entail not merely a change in title or remuneration but a progressive transformation in academic responsibility, from a comparatively greater concentration on direct and foundational teaching toward greater involvement in advanced formation, research leadership, supervision, curriculum development, coordination, and mentoring. Such differentiation should remain collegial rather than narrowly hierarchical and should preserve academic freedom and disciplinary expertise, while enabling universities to make more purposeful use of the different levels of experience within the teaching body and strengthening curricular progression, supervision, institutional continuity, and academic responsibility.

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Taken together, these principles establish the educational foundation of the reform proposed in this article. They provide a basis for relating the purposes and expected outcomes of each degree cycle to its curricular organization, progression, and temporal requirements. The following subsection translates these principles into a proposed 4+3+5 architecture and examines why four years for the Bachelor's, three years for the Master's, and five years for the Doctorate provide an appropriate temporal framework for the educational functions assigned to each cycle.

3.2 FROM EDUCATIONAL PURPOSE TO PROGRAM DURATION

Translating a purpose-oriented conception of university education into a concrete degree architecture requires moving beyond the general proposition that students need "more time." The central issue is not the extension of programs in itself, but the identification of a temporal structure that corresponds to the educational functions assigned to each degree cycle. In this perspective, the proposed four-year Bachelor's degree, three-year Master's degree, and five-year Doctorate should not be understood as arbitrary additions to the existing LMD structure. Each proposed duration reflects a distinct stage in the progression from disciplinary formation to advanced specialization and, ultimately, independent knowledge production. The proposed 4+3+5 architecture therefore derives its rationale from the educational sequence that each degree cycle is expected to support.

At the Bachelor's level, the rationale for four years lies in the expanded educational purposes now assigned to undergraduate education. The cycle must provide solid disciplinary foundations while also allowing for their progressive consolidation and extension into methodological competence, academic literacy, analytical reasoning, research awareness, transversal skills, and preparation for subsequent academic or professional pathways. Accommodating these functions within three years runs the risk of compressing distinct stages of development into a relatively limited temporal framework. A fourth year creates additional educational space for progression from foundational learning towards greater disciplinary depth, integration, and autonomy, without requiring these objectives to compete for time within the same stages of the curriculum. The proposed duration should therefore be understood not as an additional year appended to the existing Licence, but as the temporal basis for a more coherent undergraduate formation.¹⁶

The rationale for a three-year Master's degree is different. Master's education should constitute a genuinely advanced cycle rather than a short transitional stage between undergraduate study and doctoral research. Its educational purpose requires sufficient time for advanced disciplinary formation, specialization, methodological development, and substantial independent research or professional application. While contemporary Master's programs internationally are commonly organized over one or two years, the duration and organization of advanced postgraduate formation have historically varied considerably, including within Morocco itself. The proposed third year should therefore not be understood simply as an additional year of coursework, but as educational space allowing advanced formation and methodological preparation to mature into substantial independent work. A three-year structure would make it possible to distinguish more clearly between advanced disciplinary and methodological formation and the sustained research, professional, or innovation-oriented work through which Master's-level autonomy is demonstrated.¹⁷

¹⁶ The proposed four-year duration should be understood as a general framework rather than as an inflexible maximum applicable to all undergraduate programs. International practice demonstrates that longer undergraduate trajectories may be appropriate where disciplinary, professional, or experiential requirements justify them. At the University of British Columbia, for example, the Bachelor of Applied Science in Engineering Physics is structured as a five-year program integrating advanced academic study, project work, and co-operative education (co-op), in which periods of academic study alternate with structured, discipline-related work placements. Five-year undergraduate trajectories also occur through co-op and integrated degree structures: the University of Waterloo notes that co-op commonly extends undergraduate study beyond the typical four years, while the University of Ottawa offers five-year dual fast-track programs combining engineering with fields such as computing technology or physics. Such examples illustrate a broader principle relevant to the proposed Moroccan architecture: a four-year Bachelor's can provide a common temporal framework while allowing justified variations in fields whose educational and professional requirements demand additional training time.

¹⁷ The proposed three-year Master's should not be understood as implying that a three-year cycle constitutes an international norm. Contemporary Master's programs are commonly organized over one or two years, although the duration and internal organization of advanced postgraduate education vary across systems and disciplines. The Moroccan experience itself provides an important historical perspective. Before the 1997 reform and the subsequent introduction of the LMD system, postgraduate education followed a more extended and differentiated sequence of advanced study and research. In an earlier configuration, advanced postgraduate preparation included the *Diplôme d'études approfondies* (DEA), subsequently reorganized around the *Certificat d'études complémentaires* (CEC), followed by the *Diplôme d'études supérieures* (DES). The DES was not simply an additional taught qualification but a substantial research degree, associated with the preparation and defense of a third-cycle thesis (*thèse de troisième cycle*), and constituted a qualification permitting recruitment into the university teaching corps as *maître-assistant*. The *Doctorat*

The proposed five-year Doctorate requires a different justification because doctoral education is not equivalent to the preceding degree cycles. The purpose is not simply to replace the present minimum three-year duration with a longer period of thesis registration, but to reconceptualize doctoral education as a structured process of advanced formation leading progressively to independent research and original knowledge production.¹⁸ Such a process requires sufficient time for advanced theoretical and

d'État represented a further and higher stage of independent research beyond this third-cycle qualification. This architecture remained operative until the 1997 reform, which introduced the *Diplôme d'études supérieures approfondies* (DESA) and the professionally oriented *Diplôme d'études supérieures spécialisées* (DESS), together with a new doctoral regime (Kingdom of Morocco, 1997a). The contemporaneous reform of the teacher-researcher statute also contained transitional provisions for academics engaged in the preparation of the former *Doctorat d'État* (Kingdom of Morocco, 1997b). These successive configurations also reflect the historically strong influence of French higher-education models on the organization of Moroccan university studies. This influence remained evident in the transition to LMD, itself derived from the European Bologna process but transmitted to Morocco through particularly close academic, institutional, and policy relations with France. The issue is not the legitimacy of international policy transfer itself, which can facilitate comparability, mobility, and academic cooperation, but the recurrent adoption of externally developed architectures without sufficient reassessment of their suitability to changing national educational purposes and institutional conditions. The historical point is therefore not that earlier structures should be restored, nor that international models should be rejected, but that Morocco should move from successive adaptation of externally referenced models toward a degree architecture whose organization and duration are primarily derived from its own educational priorities, institutional capacities, research ambitions, and socio-economic needs. The proposed three-year Master's should be understood within this broader purpose-oriented approach: as an attempt to provide sufficient educational space for advanced disciplinary and methodological formation to develop into substantial independent research, professional, or innovation-oriented work.

¹⁸ The proposed five-year Doctorate should more precisely be understood as a structured 2+3 model, rather than as five undifferentiated years of thesis registration. The first two years would constitute an advanced doctoral formation and candidacy phase within the student's chosen field of specialization. During this period, doctoral students would undertake advanced disciplinary and theoretical coursework, specialized seminars, research methodology and research-design training, critical engagement with the principal literature and debates of their field, scientific writing and communication, research ethics, and, where appropriate, complementary training in quantitative, qualitative, digital, laboratory, archival, field-based, or other methods required by the discipline. The objective would not be to reproduce Master's-level coursework at a higher administrative level, but to move students from advanced disciplinary competence toward the breadth, depth, methodological independence, and critical capacity expected of a doctoral researcher. At the end of this preparatory phase, progression to dissertation research would be conditional upon successful completion of a formal doctoral qualifying or comprehensive examination. This could combine a substantial written examination or paper assessing mastery of the field, theoretical and methodological competence, and the ability to synthesize and critically evaluate relevant scholarship with an oral examination before an academic committee assessing the candidate's capacity to formulate arguments, respond to scholarly questioning, demonstrate command of the chosen specialization, and undertake independent doctoral research. Only candidates who successfully complete this stage would advance formally to doctoral candidacy and the dissertation phase. Such a structure has parallels in doctoral systems in which coursework and comprehensive or qualifying examinations precede candidacy and sustained dissertation research; for example, doctoral programs at the University of Toronto commonly locate departmental qualifying examinations within the initial years of doctoral study, and some require their successful completion before the thesis topic or subsequent candidacy stages can proceed. Some programs combine written assessment with an oral examination specifically intended to evaluate preparedness for dissertation research. The remaining three years should be understood as a minimum research period, rather than an automatic deadline for completion. During this second phase, the doctoral candidate would concentrate primarily on the conception, execution, analysis, writing, dissemination, and defense of original research under structured supervision, while continuing to participate in seminars, research teams, conferences, publications, mobility, teaching preparation, or other activities appropriate to the discipline. Progress should be assessed periodically against clearly defined research milestones rather than inferred simply from continued registration. The 2+3 structure would therefore establish a meaningful distinction between being enrolled in a doctoral program and having demonstrated readiness for doctoral candidacy: admission would provide access to advanced doctoral formation, whereas progression to independent dissertation research would require evidence that the student possesses the disciplinary knowledge, methodological preparation, analytical maturity, and research capacity necessary to undertake it. Such a model could simultaneously strengthen doctoral standards, reduce premature entry into poorly prepared thesis projects, identify weaknesses before several years of research have been invested, and give the doctoral degree a clearer educational architecture. It would also make the proposed five-year duration educationally intelligible: the additional time would not simply prolong the present minimum three-year thesis period, but would create a distinct two-year phase of advanced doctoral formation and qualification followed by a minimum three-year phase devoted principally to original research.

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methodological preparation, the formulation and maturation of a viable research project, sustained empirical or conceptual investigation, participation in research communities, scientific dissemination, and the completion and defense of an original dissertation. A five-year framework would provide a more coherent temporal horizon within which these dimensions of doctoral formation can develop progressively, while recognizing that the completion of original research cannot always be confined to a predetermined period. The proposed duration should therefore be understood as a structured framework for developing scientific autonomy rather than as an administrative extension of thesis registration.

Importantly, the proposed durations should not be interpreted as rigid prescriptions that ignore disciplinary diversity. Different academic and professional fields may require different internal distributions of coursework, practice, research, fieldwork, laboratory training, studio work, internships, or clinical experience. The purpose-oriented model therefore does not assume that identical educational activities should occupy the same amount of time across all disciplines. Rather, it establishes a common temporal framework within which universities and programs can organize these activities according to disciplinary needs while preserving a coherent progression between degree cycles. The proposed durations thus provide educational space rather than prescribing a uniform curriculum.

The logic of the 4+3+5 model can therefore be summarized as a progression from broad disciplinary and academic formation, through advanced specialization and research development, to sustained independent knowledge production. The Bachelor's degree establishes the intellectual and methodological foundations of higher education; the Master's consolidates specialization and develops advanced research or professional competence; and the Doctorate culminates in original research and scientific autonomy. The proposed durations provide the temporal framework within which these differentiated educational purposes can be developed progressively. The following subsection considers how this framework can be translated into a coherent organization of the three degree cycles.

3.3 THE PROPOSED ARCHITECTURE OF UNIVERSITY DEGREES

Building on the principles developed above, the proposed architecture reorganizes Moroccan university education around three successive and educationally differentiated cycles: a four-year Bachelor's (Licence), a three-year Master's, and a five-year Doctorate. The purpose of this architecture is not simply to extend the existing LMD sequence, but to establish clearer educational functions for each cycle and stronger progression between them. Each degree should constitute a coherent stage of university formation with identifiable learning outcomes, while simultaneously preparing students for progression to the subsequent cycle or for entry into appropriate professional environments.

Within the four-year Bachelor's degree, undergraduate education would be organized as a progressive process rather than as an accumulation of modules distributed across additional semesters. The first two years would constitute a foundational and consolidating stage, establishing the broader disciplinary knowledge required within the field while progressively developing academic literacy, language proficiency where relevant, digital competence, methodological awareness, analytical and critical reasoning, academic writing, and the learning practices necessary for successful university study. The third year would constitute an intermediate stage of disciplinary deepening and orientation, during which students would begin to enter a more clearly defined field of specialization while further developing methodological competence, interdisciplinary perspectives, and research literacy. In a broad disciplinary area such as English Studies, for example, students might at this stage orient their studies towards Linguistics, Literature, Cultural Studies, or another recognized specialization. The fourth year would consolidate this specialization through advanced coursework and provide greater opportunities for the integration and application of knowledge through supervised projects, introductory research, internships, fieldwork, laboratory activities, or other forms of experiential learning appropriate to the discipline. The Bachelor's degree would consequently be awarded in a defined field of specialization, reflecting a progression from broad disciplinary formation during the first two years to increasingly focused and advanced study during the final two. The precise distribution of these educational functions would remain adaptable to disciplinary and institutional requirements, but the four-year structure would establish a common developmental logic of foundation, consolidation, specialization, and integration. The Bachelor's would thereby constitute a complete cycle of higher education, capable both of preparing graduates for appropriate professional pathways and of providing the intellectual and methodological foundation required for advanced postgraduate study.

The three-year Master's degree would represent a distinct stage of advanced specialization building upon the specialized disciplinary foundation already established during the final two years of the Bachelor's. The first year would deepen theoretical and disciplinary knowledge within the chosen field while strengthening advanced methodological competence and exposing students to current debates, research traditions, and specialized forms of inquiry. The second year would move towards greater intellectual and research autonomy through advanced seminars, methodological training, supervised research, professional or laboratory practice where appropriate, and the progressive definition of an individual research, professional, or innovation-oriented project. The third year would be devoted primarily to the development and completion of substantial independent work, which could take the form of a

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research thesis, an advanced professional project, or another discipline-appropriate form of integrative work demonstrating Master's-level competence. The three-year structure would thus establish a progression from advanced specialization, through methodological and research development, to sustained independent work, while allowing its precise organization to vary according to disciplinary and professional requirements.

The five-year Doctorate would be organized according to a 2+3 structure that distinguishes advanced doctoral formation from the subsequent phase of sustained independent research. The first two years would constitute a structured doctoral formation period combining advanced theoretical and methodological training, specialized seminars, research ethics, academic and scientific writing, engagement with relevant research communities, and the progressive development of the doctoral research project. During this phase, candidates would refine their research questions, theoretical framework, methodology, and research design under close academic supervision. Progression to doctoral candidacy would depend upon successful completion of this formative stage and a formal qualifying or comprehensive assessment demonstrating that the candidate possesses the theoretical, methodological, and research competence required to undertake independent doctoral research. The subsequent three years would constitute the principal research phase, centered on sustained investigation, analysis, original knowledge production, scientific dissemination, participation in national and international research communities, and the preparation and defense of the doctoral dissertation. This second phase should be understood as a minimum research period rather than an inflexible deadline, since the time required for original research necessarily varies according to discipline, methodology, and the nature of the research project. The 2+3 structure would thus distinguish more clearly between preparation for independent research and the conduct of independent research itself, while treating both as integral components of doctoral education.

The three cycles should nevertheless not be conceived as isolated educational stages. Their coherence depends on the establishment of a progressive continuum in which competencies introduced at one level are consolidated and extended at the next. Research formation illustrates this principle particularly clearly. Research literacy and basic methodological awareness should begin during the Bachelor's cycle, develop into advanced methodological competence and supervised independent inquiry during the Master's, and culminate in autonomous knowledge production at the doctoral level. A similar progression can be envisaged for critical thinking, academic communication, digital competence, interdisciplinary engagement, and professional autonomy. The architecture would therefore replace the concentration of particular competencies within individual modules or degree levels with a developmental model in which complex capacities are constructed progressively throughout university education.

This developmental continuity should coexist with disciplinary flexibility. While the proposed architecture establishes common educational functions and expected levels of progression for each degree cycle, universities and disciplinary communities should retain responsibility for determining how the available educational time is distributed among coursework, research, professional practice, laboratory or fieldwork, internships, clinical training, design studios, project-based learning, and other discipline-specific forms of learning. National coherence in degree architecture would thus remain compatible with meaningful academic and pedagogical differentiation.

The proposed reform would consequently require curriculum redesign rather than the simple addition of semesters to existing programs. Extending program duration while retaining unchanged curricula would reproduce existing weaknesses over a longer period and would contradict the purpose-oriented approach advanced here. Additional educational time should instead be associated with clearly identified functions: strengthening foundational learning, reducing curriculum compression, creating space for progressive specialization, integrating research more systematically, expanding experiential and professional learning, and allowing students to consolidate competencies before advancing to higher levels of study. The value of the proposed architecture therefore depends upon the effective use of the additional time rather than upon duration alone.

Table 1 summarizes the proposed architecture by relating the duration of each degree cycle to its principal educational outcomes. The table should be read as a general framework rather than as a standardized curriculum. Its purpose is to make explicit the relationship between the temporal organization of university studies and the progressive educational functions assigned to the Bachelor's, Master's, and Doctoral cycles.

Table 1. Current and Proposed University Degree Architecture¹⁹

DEGREE CYCLE	CURRENT LMD ARCHITECTURE	PROPOSED ARCHITECTURE	INTERNAL PROGRESSION	EXPECTED EDUCATIONAL OUTCOMES
Bachelor's (Licence)	3 years	4 years	Years 1–2: disciplinary foundations and consolidation; Year 3: disciplinary deepening and orientation towards specialization; Year 4: consolidation and integration within a defined field of specialization	Establish disciplinary and methodological foundations; strengthen academic literacy, critical thinking, digital and transversal competencies; progressively develop research literacy; support professional preparation; achieve sufficient specialization for the award of a Bachelor's degree in a defined field
Master's	2 years	3 years	Year 1: advanced specialization; Year 2: methodological and research development and project definition; Year 3: substantial independent research, professional, or innovation-oriented work	Deepen specialized disciplinary knowledge; develop advanced methodological and research competence; strengthen intellectual autonomy; promote interdisciplinary and professional engagement; demonstrate Master's-level competence through substantial independent work
Doctorate	Minimum 3 years	5 years	Years 1-2: advanced doctoral formation and qualification; Years 3-5: minimum period of sustained independent doctoral research	Develop advanced theoretical and methodological competence; establish readiness for doctoral candidacy; produce original knowledge; develop scientific communication and publication experience; participate in research communities; achieve scientific autonomy

As Table 1 illustrates, the proposed architecture establishes a progressive relationship between degree level, educational purpose, training time, and increasing intellectual autonomy. Its coherence lies not only in the duration assigned to each cycle, but in the developmental relationship between them: competencies introduced and consolidated at one level provide the foundation for more specialized, independent, and demanding forms of learning and research at the next. The 4+3+5 structure should therefore be understood as an integrated educational pathway rather than as three independently extended degree cycles. Its relevance, however, ultimately depends on whether this architecture responds to the particular educational, institutional, and developmental conditions of Moroccan higher education, an issue addressed in the following section.

¹⁹ The proposed 4+3+5 architecture would allocate a total of twelve years to the completion of the three principal university cycles: four years for the Bachelor's (Licence), three for the Master's, and five for the Doctorate. Interestingly, this corresponds to the standard twelve-year trajectory of Moroccan school education preceding university: six years of primary education, followed by three years of lower secondary education (collège) and three years of upper secondary education (lycée/enseignement secondaire qualifiant), culminating in the Baccalaureate. This numerical equivalence is not presented as a justification for extending university studies in itself, since the duration of each educational cycle must ultimately be determined by its purposes and expected learning outcomes. It nevertheless provides a useful perspective on the temporal organization of education as a progressive process of intellectual formation. Whereas the twelve pre-university years progressively develop foundational knowledge and prepare learners for higher education, the proposed twelve-year university trajectory would accommodate increasingly advanced levels of disciplinary specialization, methodological competence, research autonomy, and knowledge production. More importantly, the proposed extension would give each university cycle a clearer educational identity and sufficient temporal space to fulfil it: the Bachelor's as a substantial period of disciplinary, methodological, transversal, and pre-professional formation; the Master's as an advanced cycle of specialization, research development, interdisciplinary engagement, and professional experience; and the Doctorate as a sustained period of structured research training, original knowledge production, scientific publication, international engagement, and preparation for independent academic or professional research. The proposed architecture should therefore be understood not simply as an extension of time spent at university, but as a redistribution of educational time in accordance with the progressively more complex intellectual, scientific, and professional outcomes expected at successive levels of higher education.

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3.4 CONTEXTUAL RELEVANCE AND IMPLICATIONS OF THE PROPOSED ARCHITECTURE

The relevance of the proposed architecture ultimately depends on its capacity to respond to the educational, institutional, and developmental conditions of Moroccan higher education. Its purpose is therefore not to establish a universally applicable model, nor simply to replace one internationally derived degree structure with another, but to examine how educational time might be reorganized in relation to Morocco's own priorities and constraints. From this perspective, the implications of the 4+3+5 architecture must be considered not only in terms of the additional time allocated to each degree cycle, but also in relation to undergraduate formation, research development, institutional capacity, disciplinary diversity, graduate preparation, and Morocco's position within an international higher education environment.

A first implication of the proposed architecture concerns the conditions under which undergraduate education is delivered. In the Moroccan context, the expansion of the educational functions assigned to the Bachelor's has occurred without a corresponding extension of the time available for their progressive development. The proposed fourth year would therefore serve not merely to accommodate additional content, but to reduce curriculum compression and allow foundational learning, methodological development, specialization, research exposure, and professional or experiential learning to be sequenced more coherently. Its value would lie particularly in creating educational space for competencies to develop progressively rather than requiring an increasing number of objectives to be accommodated within an unchanged three-year framework.

The proposed architecture also responds to the increasing importance assigned to research within Moroccan higher education. National policy has progressively emphasized scientific production, innovation, doctoral training, and greater international research visibility. These ambitions depend not only on investment in research institutions and doctoral programs, but also on the preparation students receive before entering doctoral study. By creating greater educational space for research literacy, methodological development, academic writing, critical inquiry, and progressively more independent research across the Bachelor's and Master's cycles, the proposed architecture would allow research competence to develop over a longer educational trajectory. The strengthening of research capacity would thus begin before the Doctorate itself, potentially providing doctoral candidates with stronger methodological and disciplinary preparation and universities with a more developed foundation for sustained knowledge production.

The proposed extension of program duration must nevertheless be considered in relation to the substantial capacity constraints already affecting Moroccan public universities. As discussed earlier, the expansion of student enrolment has not been matched proportionately by increases in teaching staff, administrative personnel, or physical capacity. A reform of degree architecture would therefore require corresponding long-term investment in university infrastructure and human resources²⁰. Extending programs without addressing these conditions could simply reproduce existing pressures over a longer period. Such investment should also be planned prospectively in relation to anticipated demographic and enrolment trends rather than primarily in response to capacity shortages once they have already emerged.²¹ At the same time, program duration should not be equated mechanically with a

²⁰ Educational capacity should be planned prospectively rather than expanded primarily in response to shortages that have already emerged. Demographic trends, school completion rates, projected transitions into higher education, regional population distribution, patterns of student mobility, and anticipated changes in participation rates can provide the basis for estimating future demand sufficiently in advance. Such projections should inform not only the number and geographical distribution of universities and other higher education institutions, but also future requirements for teaching spaces, laboratories, libraries, digital infrastructure, student residences, university restaurants, academic and administrative staff, and other support services. The same principle should apply throughout the education system: population growth and demographic change should inform the anticipated need for schools, teachers, boarding facilities, transportation, and related educational services before existing facilities become critically overcrowded. Prospective planning would therefore shift educational policy from recurrent responses to capacity crises towards a longer-term approach in which infrastructure and human-resource development accompany, and where possible precede, expected growth in educational demand. This is particularly important because universities, schools, residences, laboratories, and the recruitment and preparation of qualified personnel require years to plan and develop; decisions taken only after capacity has been exceeded necessarily address needs that could often have been anticipated much earlier.

²¹ The question of institutional capacity should be situated within a broader conception of education as a major public investment. Expanding access cannot be reduced to increasing enrolment numbers; it requires the material conditions that allow students to participate effectively in education. At the school level, this implies adequate educational infrastructure distributed in reasonable proximity to the populations it serves, together with appropriate student support, including at least one daily meal and, for learners whose place of residence makes daily attendance impracticable, adequate boarding facilities providing accommodation, meals, and the basic conditions necessary for study. Similar principles apply to higher education. Universities should progressively be equipped and expanded in relation to demographic growth and enrolment, while students who must study away from home should have

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proportional increase in classroom occupancy or contact hours. Program duration, total contact time, individual session duration, supervised practice, and independent learning constitute related but distinct dimensions of educational time. A longer educational trajectory can therefore be organized through a differentiated combination of direct instruction, tutorials, supervised projects, laboratory or studio work, guided independent study, digital or blended learning, field experience, and other forms of learning appropriate to disciplinary objectives.²² Such differentiation could allow existing resources to be used more efficiently during a transitional period, but it should complement rather than substitute for the longer-term expansion of infrastructure and the recruitment of sufficient academic and administrative personnel.

The proposed 4+3+5 architecture should, in principle, constitute the common national framework across academic and professional disciplines. Generalizing this architecture would provide the higher education system with a coherent sequence of qualifications and a shared understanding of the educational level associated with the Bachelor's, Master's, and Doctorate. Such coherence should not, however, be confused with absolute uniformity. Disciplines should retain substantial flexibility in determining the internal organization of their curricula, including the distribution of theoretical instruction, laboratory work, fieldwork, internships, clinical training, professional practice, and research. Moreover, particular fields whose educational, clinical, professional, or accreditation requirements demonstrably require longer periods of formation, medicine, dentistry, and potentially other highly specialized programs, should be able to depart from the standard duration where such variation is academically justified. The 4+3+5 structure should therefore function as the national reference architecture rather than as an inflexible temporal ceiling: departures from it should respond to identifiable educational requirements rather than to inherited institutional arrangements or sectorial affiliations.²³

reasonable access to university residences, meals, libraries, study spaces, health and social services, digital infrastructure, and other conditions necessary for academic participation. Such provision should be understood not as ancillary to educational policy but as part of the public infrastructure through which equal access to education becomes meaningful. In a publicly financed system, the allocation of resources derived from taxation necessarily raises questions of national priorities; education and healthcare, because of their direct relationship to human development, social mobility, and long-term national capacity, warrant sustained public investment whose benefits are broadly accessible rather than disproportionately concentrated among limited groups. Public investment in education should, however, be accompanied by a clear framework of student responsibility. Universities are communities of learning whose functioning depends upon respect for academic and administrative staff, fellow students, institutional rules, and public property, including university residences and other collective facilities. Serious or repeated violations should therefore be addressed through transparent and enforceable disciplinary procedures, with sanctions proportionate to the misconduct and, in severe cases, the possibility of suspension or exclusion. The objective is not punitive in itself: a publicly supported education system should seek to form knowledgeable, responsible, and civically engaged graduates capable of contributing to the scientific, economic, institutional, and social development of the country.

²² One possible transitional approach would be to differentiate instructional time according to the nature of the learning outcomes, disciplinary requirements, pedagogical methods, and degree of supervised practice involved, rather than assigning identical contact hours or standard session lengths to all curricular components. Core disciplinary, methodological, laboratory-based, or otherwise intensive components might, for example, retain two-hour sessions where sustained instruction and supervised work justify them, while some complementary components could operate through shorter sessions of approximately ninety minutes, supplemented where appropriate by guided independent work, tutorials, digital resources, or appropriately designed blended learning. Session duration could be reduced further where pedagogically justified. Such differentiation could increase the number of teaching slots accommodated within existing classrooms and amphitheatres and permit a more efficient distribution of scarce institutional resources. This should not be understood as distinguishing between educationally “important” and “unimportant” subjects, nor as a general strategy for reducing teaching provision. A competence taught through shorter sessions but introduced earlier and developed progressively across several semesters may receive a more substantial developmental trajectory than one allocated longer sessions but concentrated within a single semester. The objective would be to optimize the distribution of contact time while preserving, and potentially increasing through better sequencing, the effective training time available for achieving intended learning outcomes.

²³ A coherent national degree architecture also raises the broader question of the institutional and territorial organization of higher education. Institutions delivering higher education should, in principle, form part of an integrated university system under the governmental authority responsible for higher education, rather than remain administratively dispersed among sectorial ministries according to professional fields. Such integration would not eliminate disciplinary or professional identities: architecture, engineering, administration, medicine, and other fields could be organized as schools, faculties, or institutes within universities; for example, a School of Architecture, School of Engineering, School of Administration, Faculty of Medicine, or Faculty of Letters and Humanities, while benefiting from shared university structures for teaching, research, academic governance, quality assurance, libraries, laboratories, doctoral education, and interdisciplinary collaboration. Sectorial ministries and professional bodies could continue to contribute to the identification of workforce needs, professional competencies, accreditation requirements, internships, and relations with practice without assuming institutional responsibility for higher education itself. Institutional integration should

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National coherence would consequently reside in a common architecture and clearly defined qualification levels, combined with sufficient disciplinary flexibility to accommodate legitimate differences in curriculum and, where necessary, duration.

Beyond universities themselves, the proposed reform also responds to broader societal expectations. Contemporary employers increasingly seek graduates capable of critical thinking, effective communication, teamwork, adaptability, problem solving, and continuous learning in addition to disciplinary expertise. At the same time, Moroccan society requires universities to contribute more actively to innovation, entrepreneurship, public sector modernization, sustainable development, and the production of knowledge capable of addressing national challenges. Achieving these objectives requires graduates who possess not only technical competencies but also intellectual maturity, methodological rigor, and the capacity for independent learning. These qualities develop progressively over time and are therefore closely linked to the organization of university education.

Finally, the proposed architecture reflects a broader principle of educational sovereignty. Educational sovereignty should not be understood as isolation from international developments or as the rejection of models developed elsewhere, but as the capacity of a higher education system to evaluate them critically and to adopt, adapt, combine, or depart from them according to its own educational purposes and national priorities. International experience remains valuable precisely because it provides multiple models from which lessons can be drawn; it should constitute a source of comparison and learning rather than a template for institutional reproduction. For Morocco, this implies moving beyond a logic in which the legitimacy of university reform is measured primarily by conformity with externally established architectures and asking instead whether a particular structure provides the conditions required for effective learning, research, professional formation, and national development. The proposed 4+3+5 architecture should therefore be understood in this perspective: not as a rejection of international convergence, but as an attempt to combine international comparability with the institutional autonomy necessary to design a higher education system responsive to Morocco's own educational, scientific, economic, social, and territorial realities.

Beyond its national significance, the proposed architecture also has important international implications. By strengthening the educational coherence and clearly defined purposes of each degree cycle, the proposed model could enhance the international intelligibility and comparability of Moroccan university qualifications while preserving the flexibility necessary to respond to

not, however, be confused with geographical centralization. A university could operate at the scale of a region through a principal academic and research center complemented by faculties, schools, institutes, or multidisciplinary faculties distributed across surrounding cities and territories, thereby bringing higher education closer to students, reducing excessive concentration and overcrowding in major university centers, limiting the financial and social costs of studying far from home, and contributing to a more balanced territorial distribution of educational opportunities. Such a territorially distributed university should also facilitate the mobility of academic staff across its different sites. Specialized teaching need not require the permanent presence of every professor at every regional institution: faculty members based at the principal university center could travel periodically to surrounding campuses to deliver courses, seminars, workshops, or intensive teaching sessions, while professors based in regional institutions could similarly contribute to teaching and research activities at the central university or at other institutions within the network. This mobility should be institutionally organized and financially supported rather than left to individual faculty members, with transportation costs reimbursed and appropriate accommodation and meals provided where teaching requires an overnight stay or several days of presence. If universities are conceived as adequately equipped academic environments incorporating student residences, university restaurants, and related facilities, provision could also be made for university guest accommodation and meals for visiting faculty. A professor traveling to another campus for a lecture, seminar, examination, supervision session, or short teaching period could therefore be provided with a room and the necessary meals for the duration of the academic assignment. Such arrangements would allow specialized academic expertise to circulate across the university network, strengthen interaction between central and regional institutions, and expand access to qualified teaching without requiring the unnecessary duplication of highly specialized academic positions at every location. The distribution of degree programs within such a network should depend upon demonstrated academic and research capacity: Bachelor's programs could be made widely accessible through regional and multidisciplinary institutions, while Master's programs requiring specialized resources could be concentrated in selected centers and doctoral programs, in particular, could be located primarily where adequate research teams, laboratories, libraries, supervision, and scientific infrastructure are available. This principle should not prevent regional institutions from developing Master's or doctoral programs once the necessary capacity has been established, but would ensure that the authorization to offer advanced degrees reflects actual academic conditions rather than institutional designation alone. The objective would therefore be neither excessive centralization nor institutional fragmentation, but a territorially distributed and academically integrated university system combining a common national degree architecture, broad regional accessibility, disciplinary specialization, efficient use of public resources, and an appropriate concentration of advanced teaching and research where the conditions required for their quality can genuinely be provided.

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national priorities. A stronger undergraduate foundation, a more research-intensive Master's program, and a structured doctoral pathway could facilitate academic mobility, international research collaboration, joint degree programs, and the recognition of Moroccan qualifications within an increasingly interconnected global higher education landscape. In this perspective, internationalization should not be understood as institutional uniformity, but as the capacity to engage effectively with global academic standards and networks while preserving educational autonomy and contextual relevance.

These considerations jointly demonstrate that the proposed 4+3+5 architecture represents more than an alternative distribution of study years. Its implementation would require degree duration, curriculum design, research development, institutional capacity, public investment, territorial accessibility, and graduate preparation to be considered as interconnected dimensions of higher education reform. Extending educational time can contribute to quality only when that time is supported by appropriate curricula, qualified academic and administrative personnel, adequate infrastructure, coherent institutional organization, and the material conditions necessary for students to participate effectively in university education. The 4+3+5 architecture should consequently be understood not as an end in itself, but as one component of a more comprehensive reorganization of Moroccan higher education in which educational structures are designed around clearly defined purposes and national needs. Its significance lies in creating conditions through which universities can contribute more effectively to knowledge production, professional formation, social mobility, scientific development, and the country's longer-term development.

CONCLUSION

The introduction of the LMD system constituted an important stage in the modernization and international alignment of Moroccan higher education. By establishing a common degree structure and facilitating comparability with other higher education systems, it responded to important objectives of mobility, recognition, and institutional convergence. More than two decades after its introduction, however, the conditions under which Moroccan universities operate have changed considerably. Massification, increasingly diverse student profiles, expanding expectations regarding employability and transversal competencies, the growing importance of research and innovation, and persistent pressures on institutional capacity justify a renewed examination of whether the present architecture continues to provide sufficient educational time for the purposes now assigned to university education.

This article has argued that the duration of degree cycles should be considered not as an administrative parameter in itself, but as part of the educational architecture through which knowledge, competencies, specialization, research capacity, and intellectual autonomy are progressively developed. From this perspective, it has proposed a 4+3+5 architecture consisting of a four-year Bachelor's, a three-year Master's, and a five-year Doctorate. The Bachelor's would provide sufficient time for foundational formation, progressive specialization, methodological development, research exposure, and professional or experiential learning; the Master's would make greater space for advanced disciplinary formation, methodological development, and substantial independent research, professional, or innovation-oriented work; and the Doctorate would distinguish more clearly between advanced doctoral formation and qualification during an initial phase and the sustained independent research required for the production of original knowledge. The 4+3+5 structure is proposed as a common national reference architecture rather than an inflexible temporal ceiling: disciplines should retain the curricular flexibility necessary to achieve their particular educational purposes, while programs whose clinical, professional, or other demonstrable requirements necessitate additional training time should be able to depart from the standard duration where academically justified.

The argument developed here does not imply that extending degree duration would, by itself, improve the quality of Moroccan higher education. Additional educational time becomes meaningful only when accompanied by coherent curriculum design, qualified academic and administrative personnel, appropriate research and teaching infrastructure, adequate student support, and institutional conditions that allow learning to develop progressively. Degree architecture must therefore be considered within a broader conception of higher education reform encompassing institutional capacity, public investment, territorial accessibility, research development, disciplinary requirements, and the material conditions necessary for effective student participation. The question is consequently not simply whether university programs should be longer or shorter, but how educational time, institutional resources, and degree structures can be organized in relation to clearly defined educational purposes.

More broadly, reconsidering degree architecture also raises the question of how Morocco approaches higher education reform itself. International experience provides indispensable points of comparison and valuable models from which lessons can be drawn, but international convergence need not entail institutional reproduction. Educational sovereignty lies in the capacity to examine such models critically and to adopt, or depart from them according to national educational, scientific, economic, social, and territorial priorities. At the same time, a nationally responsive architecture must remain internationally intelligible and capable of supporting academic mobility, recognition of qualifications, scientific collaboration, and participation in global knowledge networks. The

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challenge is therefore not to choose between national specificity and international engagement, but to establish a higher education architecture capable of sustaining both.

The proposed 4+3+5 architecture should ultimately be understood as a framework for reconsidering the relationship between educational purpose, training time, institutional organization, and national development. Its value does not lie in the numerical sequence itself, but in the possibility of creating sufficient and appropriately structured educational space for students to progress from foundational learning to specialization, advanced inquiry, and independent knowledge production. Any reform of this scale would require further empirical investigation, consultation across disciplines and institutions, assessment of financial and infrastructural implications, and careful planning of implementation and transition. The proposal nevertheless invites a broader reconsideration of a fundamental question: not how Moroccan higher education can reproduce an established international model, but how it can construct a coherent, internationally engaged, and contextually grounded university system capable of educating successive generations and contributing effectively to the country's scientific, professional, social, and economic development.

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