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# MOROCCO BA AND FOUNDATION YEAR REFORM

FINDINGS AND RECOMMENDATIONS REPORT

May 2021

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# ACRONYMS

AAC&U	Association of Colleges and Universities
ACA	American Cultural Association
ANEAQ	National Agency for Evaluation and Quality Assurance of Higher Education and Scientific Research
AUI	Al Akhawayn University
BA	Bachelor of Arts
BEG	<i>Baccalaureate</i> in General Education
CC	Coordination Board
CEFR	Common European Framework of Reference for Languages
CLIL	Content and Language Instructional Learning
CNACES	Commission Nationale de Coordination de l'Enseignement Supérieur
CNCES	National Commission for Coordination of Higher Education
CNEF	National Charter for Education and Training
CNPN	Cahier des Normes Pédagogiques Nationales
COCESP	Coordination Commission for Private Higher Education
COSEF	Special Commission for Education and Training
CRMEF	Regional Centers of Education and Formation
CSEFRS	Conseil supérieur de l'éducation, de la formation et de la recherche scientifique
DEEP	Data and Evidence for Education Programs
DUEG	Diplôme d'Etudes Universitaires Générales
DUEP	Diplôme d'Etudes Universitaires Professionnelles
EAP	English for Academic Purposes (commonly known as Academic English)
ELR	Experiential Learning Requirement
EMI	English as a Medium of Instruction
ESP	English for Specific Purposes
FGD	Focus group discussion
FYE	First-Year Experience
GAF	Global Addictest Fellowship
GENIE	Generalization of ICT in Education
GFAP	Graduate Fellowship Assistantship Program
GTA	Graduate Teaching Assistant
GVE	Global Virtual Experiences
HEI	Higher Education Institutions
ICT	Information Communications, and Technology
IELTS	International English Language Testing System
IT	Information Technology
LMD	License-Master-Doctorate

LMS	Learning Management System
LOA	Learning-Oriented Assessment
MARWAN	Moroccan Academic Research Network
MATE	Moroccan Association of English Teachers
MENA	Middle East and North Africa
MOE	Ministry of Education
MOOC	Massive Open Online Course
NAEP	National Common Core Student Assessment Program
NGO	Non-governmental organization
OECD	Organisation for Economic Co-operation and Development
PA	Assistant Professors
PBL	Project-Based Learning
PCELT	Professional Certificate in English Language Teaching
PD	Professional development
PES	Teachers of Higher Education
PH	Qualified Professors
PIRLS	Progress in International Reading Literacy Study
RELO	U.S. embassy's Regional English Language Office
SLO	Student Learning Outcome
STEM	Science, technology, engineering, and mathematics
STEP	Second-Year Transformational Program
TESDA	Skills Development Authority (in the <i>Département de la Formation Professionnelle</i> )
TIMSS	Trends in International Mathematics and Science Study
TEFL	Teaching English as Foreign Language
TOEIC	Test of English for International Communication
TOEFL	Test of English as a Foreign Language
TTT	Teachers Teaching Teachers
TVET	Technical Vocational Education and Training
UGA	Undergraduate Teaching Assistant
UM6P	Mohammed VI Polytechnic University
USAID	United States Agency for International Development

# EXECUTIVE SUMMARY

The Moroccan Ministry of National Education, Vocational Training, Higher Education and Scientific Research's (the Ministry or MOE) introduction of a foundation year and conversion from the three-year license system to the four-year bachelor's system is an ambitious plan designed to provide students with the foundation needed to succeed at university and integrate easily into the national and international labor markets upon graduation. The plan is designed to provide students with the language proficiency, soft skills, and study skills needed to engage effectively in their course work and to master course material. In this way, the Ministry hopes to increase student completion rates while reducing drop-out rates and wastage. Through this reform, the Ministry builds on the existing License-Master-Doctorate (LMD) reform, more fully integrating continuous assessment and standardizing the credit system. The standard credit system and the foundation year, once fully instituted, are designed to provide greater flexibility and bridge opportunities between programs, establishments, and universities. Lastly, the reform proposes the introduction of English as a medium of instruction (EMI) in certain faculties and universities with the goal of providing students with greater flexibility to participate in international university exchange, research, and labor market opportunities.

In response to a request from the MOE, USAID engaged the DEEP project to conduct background research to inform the implementation of the BA reform and the development of the foundation year of study with a specific focus on open faculties and the pre-service teacher training programs within the university system. The DEEP team focused specifically on five components of the Bachelor of Arts (BA) and foundation year development: Integrating soft skills instruction, strengthening English language instruction, incorporating general education, exploring the integration of continuous assessment, and managing the change process. The DEEP team used desk research, key informant interviews, and focus group discussions as the basis for their research.

While the Moroccan university system has a rich history and extensive assets to offer, as explained by the Ministry representatives and as confirmed in the literature, focus group discussions and key informant interviews, the current university system faces many challenges, including high dropout rates, low on-time graduation rates, and low employment rates among graduates that are motivating this reform. These challenges are most evident in the open faculties where enrollment levels have risen substantially in the last decade and include the following:

- High student-to-faculty ratios (as faculty increases have not kept pace with enrollment increases)
- Overcrowded classes (where infrastructure has not expanded proportionately with enrollment)
- Students who are insufficiently prepared for the independent study required at the university level and lack the language proficiency and confidence needed to effectively engage in classes where the language of instruction is one in which many students are not sufficiently proficient
- Low student attendance rates and a lack of attendance requirements
- Reductions in instructional time due to increases in assessment periods at the end of each term (an inadvertent impact of the LMD reform)
- A focus on summative assessment and teacher-centered approaches due in part to large class sizes and reduced instructional time and in part due to habits of some faculty
- Lack of proper orientation to the university for incoming students and lack of guidance in making informed decisions regarding their specialization and an inability to change majors if desired

- Challenges with reliable transport to class and costs associated with housing and transport, which students do not feel are sufficiently supported with scholarships for lower-income and rural students
- Students enrolling (though not attending) at the university solely to receive scholarships and transport stipends

Challenges experienced in the open pre-service teacher training programs mirrored many of those found in other open university faculties. In addition to these, the teacher training programs experienced the following challenges:

1. Insufficient number of qualified faculty
2. Lack of capacity building and support for faculty
3. Insufficient time to design high-quality programs upon the initial introduction of the pre-service program
4. Increased teaching load without incentives
5. Entering students unprepared for the teacher education program
6. Students struggle with critical thinking and oral communication
7. No official process for evaluating teachers upon completion of the program
8. Students are entering Regional Centers of Education and Formation (CRMEF) programs without mastery of subject areas

In the report that follows, we reflect on the BA and foundation year reform and its objectives. We focus on study skills and soft skills, English language instruction, general education, and assessment. Given challenges with the effective adoption of past university reforms, we also reflect on change management issues. In each section, we review the proposed reform plan and provide reflections on how this relates to the reform's objectives. We provide a series of recommendations and propose a modified curricular structure for the foundation year (see Exhibit I: below). Throughout the report and in particular in the recommendations and resources section of the report, we provide examples and links to resources that could be helpful when considering options and planning reform implementation.



• New Student Orientation

Semester 1	Credits	Semester 2	Credits
Study Skills	3	Modern Literacies – Information Technology, statistics	3
Soft Skills	6	Public Speaking	3
Gen Ed I: Scientific Encounters – natural sciences and mathematics	6	Gen Ed II: Cultural Explorations – Humanities and Social Sciences	6
Elective	3	Elective	3
Language	6	Language	6
Language	6	Language	6
<b>Total</b>	<b>30</b>		<b>27</b>

Below is a list of recommendations. These build off of what is proposed by the Ministry for the reform, the reform’s long-term objectives, and the system’s existing assets. Some of these recommendations could be introduced on a pilot basis in the near term while many represent long-term recommendations that, if deemed appropriate by Ministry and university representatives, would need to be instituted in the coming years. The recommendations noted below were reviewed during both the findings and recommendations workshops with ministry and university representatives. During the first findings workshop, Ministry and faculty were asked to reflect on these recommendations and to help prioritize those they view as most relevant. Feedback provided during these workshops and in subsequent Ministry meetings are reflected below.

## RECOMMENDATIONS

In order to support the effective and phased implementation of the BA reform, it is important to be purposeful about change management. Characteristics of purposeful change management include ensuring that the Ministry and universities clearly communicate the expectations, phasing of the reform as well as the resources and supports that will be provided for reform implementation.

Change management teams in the universities would have to work closely with the Ministry to develop implementation plans mapping out actions, timelines, and roles and responsibilities of university and Ministry stakeholders that are associated with each recommendation.

A simple tool, such as an action planning matrix, could be used to facilitate a discussion among stakeholders regarding the reform implementation plan. (Please see below an illustration of an action planning matrix applied to the teaching assistant recommendation.)

## ROLE AND RESPONSIBILITY BY STAKEHOLDERS

Recommendation	Priority		Short-term		Establish-		Legislation	
	Level	Timeline	Actions	Ministry	Universities	ments	Professors	Students Required?
Introduce or expand the use of graduate student teaching assistants.	High Priority	Introduce in the short-term but expand in the long-term	Establish a multiple university team to design the TA roles responsibilities, governance, training, and stipend system to support TAs	Ministry to organize this team, establish team's objectives and timelines, and compile data on TA needs from universities.	University to nominate representatives and send TA plans including needs assessment data to Ministry	Provide needs assessment data to university	Participate in needs assessment, participate in the design of TA program and TA training. Take training on working with TAs.	Apply to be a TA

The recommendations below have been ordered according to prioritization provided by Ministry and University workshop participants. The asterisk (\*) indicates recommendations that participants felt could begin to be instituted in the short term.

### Faculty Supports

- Introduce or expand the use of student teaching assistants to conduct study sessions and office hours, and support grading.\*
- Provide capacity building to faculty to support the integration of student-centered instructional approaches, continuous assessment for formative purposes, soft skills development and use in all courses in years 1–4, student learning opportunities outside of the classroom, and e-learning platforms and appropriate instructional approaches.\*
- Take steps to preserve instructional time by scheduling continuous assessments throughout the term and limiting assessment time at the end of each semester.\*
- Increase the number of faculty to the extent possible and better utilize existing faculty positions.
- In pre-service training programs, provide capacity building for faculty who lack specialization in pre-service teacher training programs.

### Student Supports

- Integrate pedagogical practices that require active rather than passive learning and thus enhance students' soft skills.\*
- Provide new students with a required 2-3 day university orientation workshop.\*
- Introduce general education courses in the foundation year that expose students to a broad range of subjects.\*
- For English and French, establish proficiency benchmarks that align with the proficiency level needed to effectively participate in second-year classes where English or French is the language of instruction.\*
- Institute language placement tests for all students to see how their proficiency compares to the established benchmarks and to place students in appropriate language classes.\*
- Institute “majors fairs” and provide faculty advisors to guide students in the selection of the major.

- Introduce intensive courses focused on language for academic purposes to ensure that students are prepared for EMI in year 2.
- Introduce differentiated language classes so that students are placed in the level and intensity needed to achieve proficiency.
- Introduce soft skill and study skill courses in the foundation year to support the development of the skills needed for university success.
- Provide opportunities for students to continue to practice soft skills and language skills outside of course work through the introduction of internships, service-learning, community engagement, volunteering, language clubs, etc.
- Conduct foundation year classes in English, French, or Arabic to ensure that students are able to fully participate in class; require students to pass a language proficiency test before selecting a language.
- Integrate continuous assessment and provide students with syllabus and grading criteria.
- Establish benchmarks and an evaluation system for pre-service teachers to ensure that they are sufficiently prepared to enter the CRMEF program.

### **Change Management/Resources**

- Create Change Management Teams and Advisory Groups at Ministry and university levels to manage the implementation of the reform.\*
- Within each university, develop and implement plan for two-way communication throughout the change process.\*
- Provide incentives for establishments, departments, and faculty to adopt reform.\*
- Adopt a university-wide e-Learning platform and provide computers and IT infrastructure.\*
- Identify and support innovative teachers to serve as early adopters of the reform.\*
- Provide new and revamped classrooms with adequate audio and projection.
- Allocate shared/flexible office space to accommodate faculty office hours.
- Encourage the introduction of attendance requirements/incentives.
- Provide laboratories and workspace for hands-on activities for students.

# I. INTRODUCTION

This report has been developed by the Data and Evidence for Education Programs (DEEP) project to support the Moroccan Ministry of National Education, Vocational Training, Higher Education and Scientific Research (henceforth, the Ministry or MOE) and United States Agency for International Development (USAID) in developing plans to implement reforms in the Moroccan University system, namely the transition from a three-year license to a four-year Bachelor of Arts (BA) course of study through the addition of a foundation year to the university schedule. Through these reforms, the Ministry aims to integrate both soft skills development and general education requirements into the university system. Furthermore, the Ministry hopes to transition the language of instruction in certain areas of study from French or Arabic to English. As such, the DEEP team's mandate is to provide support in planning the integration of soft skills and general education components into the university course of study and the transition to English as the language of instruction. To do this, the DEEP team will provide assistance to the Ministry and USAID over two phases of this project: 1) identifying the assets and challenges in the current university system with regards to soft skills development, English-language instruction, and general education and 2) developing recommendations to capitalize on the system's assets and mitigate the challenges that may occur during the reform.

Following the Introduction, this report begins with an outline of the methodology. This is followed by a short background section that outlines the B.A. and foundation year reforms, the motivation behind these reforms, and select observations regarding the university system's governance and structure, history of past reforms, and e-learning capabilities that will inform the roll out of these reforms (further information on each of these topics is included in the report's annexes). The next section provides summaries of the assets and challenges within the current university system with regards to soft skills development, English language instruction, the introduction of electives in the curriculum, and assessment.

## 2. METHODOLOGY

This project included two components. In the first component, the DEEP team conducted a desk review on the Moroccan university system, focusing on soft skills and study skills, students' English language proficiency, and general education. In addition, phase I included primary data collection in the form of six focus group discussions or FGDs (three with third-year university students and three with public university, open faculty professors), a series of key informant interviews with public university professors, and consultations with public and private university professors, education organization representatives, and program implementers. In the second component, the DEEP team gathered relevant examples of approaches that have been successful in either addressing challenges currently experienced in the Moroccan University system or relevant for the planned foundation year. Examples of successful core course requirements, foundation year programs, English language instruction programs, language assessment approaches, and soft skills courses were drawn from Moroccan, Middle East and North Africa (MENA) region, and global contexts. The findings from the first and second components of this research informed the development of a series of preliminary recommendations regarding the design and implementation of the reform. These preliminary recommendations were shared with Ministry and University representatives who worked in small groups to review, revise, and prioritize these recommendations. The recommendations shared here reflect the workshop feedback.

### 3. BACKGROUND

This section of the report summarizes background context that the DEEP team believes must undergird the discussion of findings from phase I of this research. In the interest of readability, this section is not exhaustive. Further information on several critical topics, including the university system's governance and structure, history of past reforms, and e-learning capabilities, are included in Annexes 1, 2, and 3 respectively.

#### BA AND FOUNDATION YEAR REFORMS

In response to changing expectations of society and the job market, the Moroccan Ministry of Education has identified a need to revise the undergraduate education curriculum to include the promotion of skills necessary for university and workforce success. The Ministry's proposed BA foundation year reform aims to increase internal university efficiency through strengthened student performance and the introduction of curricular and pedagogic reforms needed to ensure that students have the skills to integrate into an increasingly globalized labor market. In particular, the proposed reform aims to foster individual development, autonomy, soft skills, and study skills with the goal of reducing dropout rates and increasing graduation rates at public universities.

To achieve these objectives, the Ministry of Education seeks to extend the course of study by introducing a new foundation year. The foundation year is intended to establish a bridge between secondary and higher education by providing students with the skills and orientation needed for higher education courses. The introduction of a "*tronc commun*," a core curriculum to be implemented by all universities in the first two years of the BA program, is an effort to establish equivalency, and therefore more pathways, between and within departments and universities. The core curriculum serves as the framework for graduating students' basic competencies, skills, and knowledge. It introduces more flexibility for students when choosing a specialization, more coherence in study programs across departments and universities, and harmonizes the profile of graduating students (CSEFRS, 2015<sup>1</sup>). In addition, the reform requires all graduates to develop skills in two languages and full proficiency in at least one foreign language (English or French). First-year university students will have the opportunity to take up to 24 credits, the equivalent of four language courses, in the first year. These courses are designed to provide students the proficiency needed to fully engage in content classes in the second year, which may be in Arabic, French, or English depending on students' chosen specialization. The reform also introduces study skills and soft skills, such as time-management, critical thinking, and communication, essential for students' success at the university. Furthermore, the first year will allow students to select elective courses outside of their major to broaden their perspective and provide them an opportunity to explore other areas of interest. Finally, the reform advocates for the adoption of English as a medium of instruction in at least one program in each university to expand the possibility of international study exchanges, permit graduates to engage more effectively in international research exchanges, and expand job opportunities in a globalized world, as Morocco envisions a fully English-fluent workforce in the next decade.

# MOTIVATION FOR REFORM

A number of factors have led the Ministry to propose this course of reforms. These include rapid growth in the number of students in secondary and higher education, high failure and dropout rates, a mismatch between teaching styles and learning styles, pedagogy that does not conform to modern best practices, and a lack of coordination with the labor market.<sup>2,3</sup>

## UNIVERSITY GRADUATION AND DROPOUT

In 2018, the Moroccan Higher Council for Education, Training, and Scientific Research reviewed grade repetition and dropout data from three Moroccan universities representing nearly a quarter of Morocco's open-access faculty and student population. Looking at the class that entered in 2012 (i.e., those who should have graduated by 2016), the Council found that only 9 percent graduated on time, and only 20 percent (total) had graduated by 2017. The remaining 80 percent either had dropped out or were still enrolled and taking classes. Nearly a quarter had dropped out after the first year, and only 40 percent of the students moved on time from the first to the second-year level.<sup>4</sup> The existing dropout rate and the average time required to complete a university degree represent inefficiencies in the system that drive up the average cost per graduate as illustrated in the Council's calculations below. The report notes that the average operating cost of an open access faculty per student was 9,146 dirhams per year in 2018. However, when dropouts and delayed degree completion are taken into consideration, the cost per student graduating in three years came to 128 million dirhams (adjusted to 2018 values). Those who graduated in five years cost an additional 387 million dirhams. Meanwhile, those who had either dropped out or remained in university until 2018 had cost the nation 1.1 billion dirhams to educate, without yet having received a degree and while sometimes still incurring costs.<sup>5</sup>

While there does not appear to exist a comprehensive study of dropout from the students' perspective across multiple universities in Morocco, there have been some smaller-scale studies. One of these was by Razouki et al (2019), who studied dropout at Semlalia Faculty of Science at Cadi Ayyad University (Marrakech). At this faculty, the average dropout rate was 33 percent between 2013 and 2016. While nearly 50 percent of dropouts did so in their actual first year, an additional 37 percent attended the school for two or three years but were still "first-year" students in terms of academic qualifications, i.e., they had not passed exams for their first-year course work. This study found that the vast majority (72 percent) of all students who dropped out had completed upper secondary school on schedule, and 40 percent had graduated high school with some level of honors (1.1 percent highest, 7.4 percent high, 30.9 percent basic honors). In general, the students were average students and their high school experience would not be predictive of university dropout. The dropouts reflected the student population in terms of sex and department of study. Additionally, dropouts were no less likely to live on campus than other students, though the overall number of students living on campus is small. However, on average, dropouts were more likely to come from low-income backgrounds than the rest of the student population.<sup>6</sup>

When asked about their reasons for dropping out, most students reported issues with the program of study as their reason for dropping out. This included not feeling prepared based on previous training (69 percent), language challenges (55 percent), and not feeling informed about how the education system functioned at the university level (48 percent). In addition to these factors, dropouts reported chronic absenteeism, with over 52 percent of dropouts reporting having been absent from 30 percent or more of their classes and an additional 30 percent of dropouts having missed at least one class. Most dropouts (87.6 percent) did not use the study rooms or libraries on campus to study. This non-use, not living on

campus, and long commutes may indicate a lack of integration on campus.<sup>7</sup> Indeed the Council for Higher Education also saw signs of poor student integration on campus. In 2016, less than 50,000 students across the country lived in university housing, out of a population of over 750,000 university students. Campus dining halls only served about 47,000 meals a day. Relatedly, student-focused transport is virtually non-existent, meaning that the vast majority of students who do not live on campus have a hard time getting there, and may not have the opportunity to take meals there.<sup>8</sup>

Faculty who participated in DEEP's FGDs indicated that a lack of preparation for university-level classes, including language proficiency, study skills, and soft skill deficits, along with chronic absenteeism in open faculties, were contributors to poor student performance and dropout. A lack of command of French and even formal Arabic (languages of instruction in universities) is a major issue. One professor shared that "the student wastes most of his time in adapting to the language and attempting to acquire it, rather than paying due attention to academic achievement and note-taking." Professors also noted that students' lack of self-confidence and language proficiency frequently results in poor participation in class where students seldom ask or answer questions. In general, professors felt that lack of language proficiency limited students' ability to express themselves in writing and speaking, leading to frustration, absenteeism, and dropout. Professors felt that students in high school are "coddled and monitored" by both teachers and family, and therefore do not develop the motivation and study skills needed to work autonomously when they arrive at the university.

*"Most students have basic fluency, but they do not have mastery of academic skills like research, synthesizing information, or finding reliable sources. Students also have limited literacy skills."*  
– Professor

Professors and students identified many reasons for the student absenteeism noted above. Professors who participated in DEEP's FGDs noted the lack of attendance requirements meant that students are disengaged from courses they do not feel compelled to attend. This in turn affects their ability to learn. Students agreed that optional attendance was a detriment to learning, with one student sharing "when the student finds that the professors at the university do not mark the absences, they stop attending." A study by Razouki et al (2019) found that reasons for student absenteeism included transportation issues (35.2 percent), comprehension of course material (19 percent), conflict with professors (15.5 percent), lack of motivation (14.8 percent), and health problems (10 percent).<sup>9</sup> The Council report noted overcrowded classrooms, lack of chairs, poor sound quality, teaching methods, lack of interest in content, transportation issues, and poor timing of classes.<sup>10</sup> FGD student participants also flagged lack of reliable and timely transport, which made it difficult to get to class on time, as a reason for absenteeism.

Some FGD-participating faculty members noted that teaching methods were a contributing factor and that the general quality of teaching and structure of courses needed to improve so that students would become more engaged. Professors felt too much time was given to the assessment period and that instructional time was insufficient, which limited their opportunity to go beyond "definitions and introductions." Large and overcrowded classes also limit faculty members' ability to apply more active learning approaches to keep students engaged. Students highlighted that professors often teach in a lecture style and encourage memorization. The students also highlighted the importance of having supportive professors who can communicate professionally. These students noted that both students and professors have poor communication skills, which can lead to student failure. While most of these students had positive experiences to share about motivational professors, others highlighted strict and authoritarian professors who would discourage and sometimes even bully their students.



Another factor that contributes to both absenteeism and dropout is the lack of orientation for incoming students. In 2016, the Council reported that the National Common Core Student Assessment Program (NAEP) found only a quarter of students use school counseling services, and nearly half (47 percent) chose their major without help or guidance. The impact of unguided and poorly informed decisions regarding specialization is further exacerbated by a lack of reciprocity across universities and departments. This lack of reciprocity requires students to begin their university studies again if they change their major or move to a different establishment or university.<sup>11</sup> Students will frequently drop out rather than begin their studies again. DEEP's student FGD participants noted that for many of their peers, poor orientation to the university, a lack of support in the transition between secondary and university education, a lack of guidance in selection of a major, and the inability to change their course of study once enrolled result in demotivation, absenteeism, and dropout. One student shared, "there is a problem of poor orientation, which prevents the student from knowing the specialization in which he can excel... [Professors] do not help [students] when it comes to choosing majors." Professors shared similar concerns, noting that the lack of orientation to the university system prior to enrollment causes students to pick the wrong course of study or attend the wrong institution for their interest. Many of the third-year students who participated in the FGDs also noted how important selecting the correct major was, attributing their success to their passion for their subject, which motivated them to pursue their studies even beyond the course materials.

The lack of orientation or student participation in existing university orientation programs means that students are uncertain how the university works or what expectations are for students. Students also noted feeling lost and lonely when first arriving at the university.

Students' financial issues were also noted as contributors to absenteeism and dropout. Students from low-income backgrounds frequently need to work in order to cover their housing and transportation costs while attending the university, making regular attendance more challenging. Professors who participated in the DEEP FGDs shared that many students, especially female students, have trouble affording housing and transportation, sometimes having to work extra jobs to support their families and afford to attend university. Students participating the FGDs also reiterated that financial constraints contribute to student dropout. They felt that scholarships were often received too late and were insufficient to cover costs such as housing, transportation, buying books, and making copies of course materials. One student shared that "there are students who have a problem in accessing the scholarship, so they resort to working outside the university to cover their living expenses. Such students find it difficult to reconcile between work and study, so they drop out." Students noted that these issues were especially common for students coming to university from rural areas, as they usually face longer distances to travel and may not have affordable housing connections in the cities where universities are. Potentially exacerbating the scholarship funding issues, professors noted that there are students who register for university to get the scholarship and transportation card, but then do not attend class.

An additional challenge to open-access faculties flagged in the Council report is the perception that employers, students, and the general public consider education at open-access faculties to be less valuable than education at restricted-access faculties. Indeed, even higher education faculty believed this. A 2008 survey found that 49 percent of higher education faculty would prefer their own children attend a controlled-access faculty, and 28 percent would prefer their children study abroad. Only 6 percent of higher education faculty said they would want to see their own children study in open-access faculties. The remainder preferred private education or did not answer the question. The Council believes that this attitude among professors may contribute to their lax enforcement of attendance rules, which is one of many drivers of absenteeism among students.<sup>12</sup> Students participating in the FGDs noted that this perception is demoralizing and demotivating.



Indeed, in a sense, students in open-access faculties are valued less than those in controlled-access faculties. While the per student operating cost of open access faculties was 9,146 dirhams in 2018, the operating cost for students in controlled-access faculties was 39,619 dirhams. A major driver of this disparity in investment in students comes from the student-faculty ratio. In 2016, the student-faculty ratio at open-access faculties was 83 to 1. This varied by field of study, with legal science, economic, and social sciences facing a 173 to 1 ratio, students in the humanities facing an 87 to 1 ratio, and those in the sciences only experiencing a 35 to 1 ratio. By comparison, students in controlled-access faculties had a 17 to 1 student-faculty ratio. The low cost per student at open-access universities also results from underinvestment in infrastructure. To meet the needs of the current number of students, open-access faculties need to more than double their existing infrastructure. By comparison, controlled-access faculties use only 67 percent of their existing infrastructure at current student levels.<sup>13</sup>

## PREPARATION FOR UNIVERSITY

Trends in International Mathematics and Science Study (TIMSS) and Progress in International Reading Literacy Study (PIRLS) show poor results for Moroccan students in basic education. In tests administered in 2015 (TIMSS) and 2016 (PIRLS), only 35 percent of Moroccan 4th and 8th graders (aggregated) reached the lowest level benchmark (or above) in science, 41 percent in mathematics, and 36 percent in reading, while 47 percent of students did not reach the lowest reading bar. This indicates that nearly half of students who took the test were functionally illiterate. Results of national level tests show similar limitations in student achievement, with rural areas of the country showing the lowest scores in math, science, and reading.<sup>14</sup>

Indeed, poor results hold true even to the end of secondary education. In 2016, *baccalaureate* students showed poor results in their language scores regardless of their *baccalaureate* area of study. Students in the letters track of the *baccalaureate* scored only 39/100 on average in Arabic and 23/100 on average in French. Students on the sciences track did only slightly better, scoring 46/100 in Arabic and 32/100 in French. Such poor results in languages in particular may contribute extensively to poor results at university, where students may not be ready for French language instruction or have the advanced Arabic skills needed for university level classes.<sup>15</sup> An organization for Economic Co-operation and Development (OECD) report noted that “French of most *baccalaureate* holders is low and that this [...] contributes to the high dropout and failure rates recorded in the first months of each academic year.”<sup>16</sup>

A number of factors may explain these poor outcomes. For example, Morocco sees high repetition and dropout rates among both middle schools (26 percent) and high school (25 percent) students. Indeed, in the 2016/17 school year, the high school completion rate was only 33 percent, despite much higher rates of enrollment. These poor indicators for students reflect lack of teacher preparation and high rates of teacher absenteeism. For example, in 2018 a World Bank report found that the majority of teachers did not have the skills to teach Arabic or French. Two thirds of math teachers were qualified to teach math. The rate of teacher absenteeism is high in public schools (4.8 percent), nearly triple that in private schools (1.7 percent).<sup>17</sup>

## UNIVERSITY TO LABOR MARKET TRANSITION

For those students who do complete their license, there is a disconnect between the university education and labor market needs. This disconnect, along with a significant increase in the number of degree holders in recent years, has resulted in large numbers of unemployed graduates.<sup>18,19</sup> In fact, the unemployment rate among university graduates is higher than among non-graduates. Graduate

unemployment has been increasing since 2001 while that of the general population has dropped.<sup>20</sup> In 2020, the unemployment rate for university graduates in Morocco was 23.6 percent, and could reach 50 percent in the coming years, according to Mustapha El Khalfi, a government spokesperson.<sup>21,22</sup> The transition to labor market statistics are even more striking when disaggregated by gender. According to the OECD report, 34 percent of women with a university degree were working in 2012 compared to 61 percent of men.<sup>23</sup>

Da Silva (2017) explained some of this increase in graduate unemployment through the concept of skills mismatch, i.e., the skills that graduates learn at the university are not the skills needed by employers. This study used degree type, STEM (science, technology, engineering, and mathematics) vs. non-STEM, as a proxy for the skills gained in university and found that as the percentage of non-STEM degrees increased so too did unemployment among university graduates.<sup>24</sup>

A recent study by the British Council looked at the skills that Moroccan employers believed Moroccan students possess compared to the skills that those employers want. Moroccan employers in a range of sectors believed recent graduates often came to them with IT skills, flexibility, and client friendliness, but had yet to develop the traits of dependability, organization, strong work ethic, and entrepreneurship.<sup>25</sup>

In addition to these broader studies, some studies in Morocco have looked at the connections between non-technical skills training in university and needs among employers in the engineering sector. For example, Chaibate et al. found that syllabi at Moroccan engineering schools indicated the schools aimed to build students' skills around a range of non-technical skills requested by Moroccan engineering employers, including communication, autonomy, decision-making, priority management, team working, stress management, self-confidence, and creativity. However, although these topics appeared in the syllabi in several engineering schools, engineering employers noted deficiencies in all these skills among recent engineering graduates.<sup>26</sup>

Students and faculty who participated in FGDs commented on the low employment rate of university graduates and, in particular, graduates from the open faculties where the participants were enrolled. One student noted that “everyone considers the university as a factory for the production of the unemployed.” Both students and professors felt that this perception of poor education quality coupled with limited employment prospects for graduates discouraged students both in terms of the academic effort they put into university and of finding jobs afterwards. Students noted that favoritism and connections were bigger determinants of getting a job than university education, and felt that university preparation would not help them to get a job. For their part, most professors felt like it was not necessarily their job to prepare students for the job market, which they perceived as wanting different skills than those valued by the university.

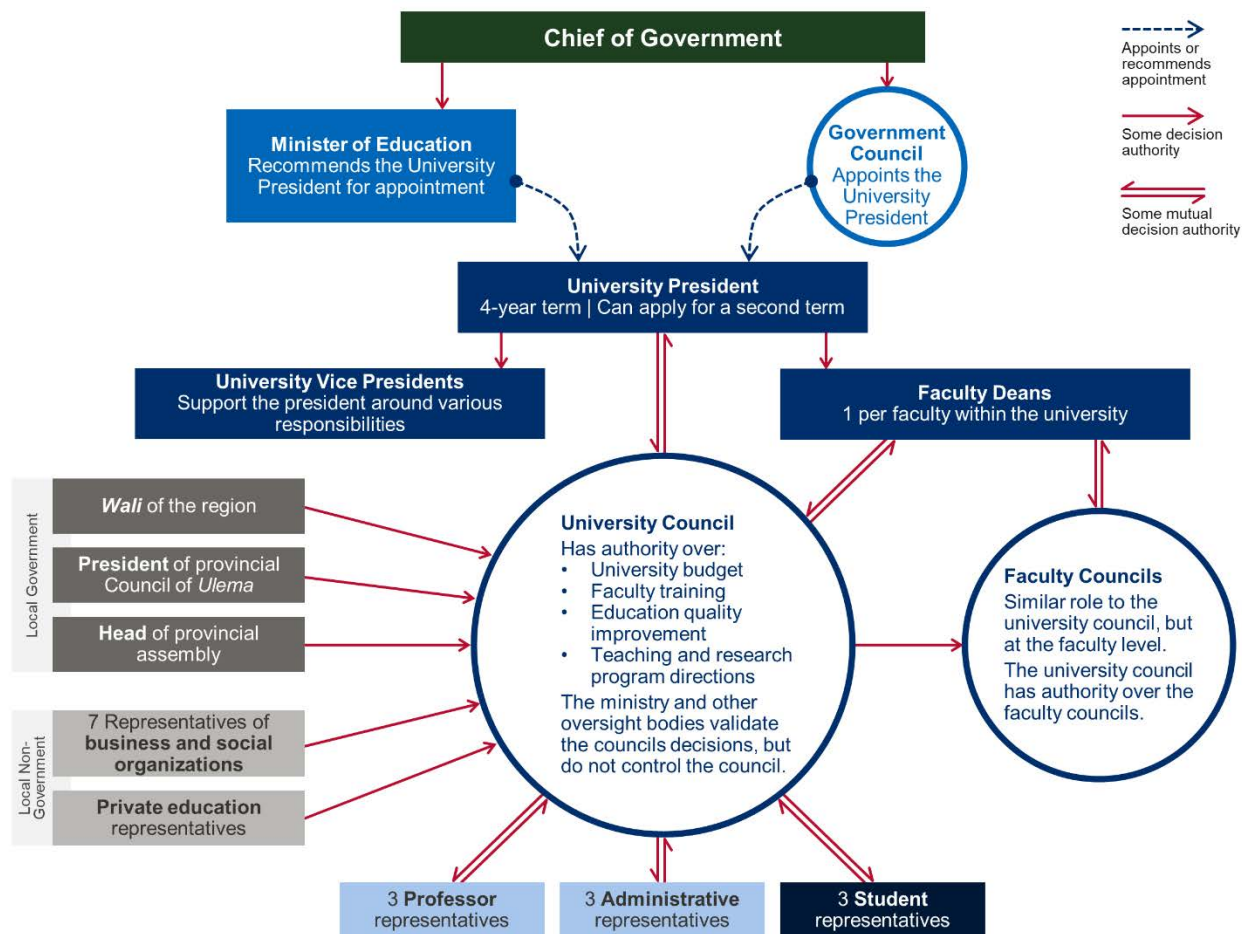
### **University transition to continuing pre-service teacher training education**

As of the 2019/2020 school year, Moroccan university students in the teacher education program complete a Bachelor's program in education and then complete two years at a CRMEF. The CRMEF focuses on pedagogical training and practicums. In order to effectively participate in this advanced and practical learning, it is important that students master subject areas and language skills at the BA level prior to entering the CRMEF. However, this does not always happen. While some students enter the CRMEF with all the necessary qualifications, others do not. Without this mastery, future teachers are unable to spend time on important specialized subjects at the CRMEF, such as teaching in rural settings or teaching children with disabilities.

# UNIVERSITY STRUCTURE AND GOVERNANCE

In order to implement effective reform, it is necessary to ensure that reform efforts engage with the correct decision-makers at the correct time. Exhibit 2 presents the governing organization of each university.

Exhibit 2: Moroccan University System Governance Structure



As shown in Exhibit 2, the president of each university is appointed by a government council on the recommendation of the Minister of Education, both of which are overseen by the Chief of Government. The president has a four-year tenure and may serve for two terms. The University President is supported by Vice Presidents, each of whom has specific mandates. In the context of the current reform, the Vice President of Academic Affairs at each university is the one tasked with implementing the new reform at the university. The University President is also supported within the university by the Deans of each Faculty (school), who are appointed following an application process.

The university has two levels of councils. There is both an all-university council and a faculty level council at each faculty. The University Council deliberates on all questions relating to the missions and the smooth running of the university. To this end, it is responsible for all measures aimed at improving the management of the university and proposes all reforms of the training provided within the university and is responsible for all educational measures aimed at improving the quality of training. The Faculty Councils are overseen by the University Council. However, within each Faculty, the Faculty Councils

create special committees within the Council who become real managers of their institutions. Overall, the Ministry only intervenes to validate the decisions of the University Council.

In addition, the University and Faculty Councils are responsible for the financial management of the university as a whole and of each faculty. The University Council distributes the budget allocated to the university to each of the Faculties. To do so, each faculty prepares its own budget proposal, which is adopted by the Faculty Council and shared with the University Council. The University Council then adopts the overall university budget proposal. This budget becomes enforceable once approved by the finance ministry.

External to the structure in Exhibit 2, there are a number of central coordination and regulatory bodies within the education system. These include the National Commission for Coordination of Higher Education (CNCES), the Coordination Board (CC), the Coordination Commission for Private Higher Education (COCESP), and the National Agency for Evaluation and Quality Assurance of Higher Education and Scientific Research (ANEAQ).<sup>27</sup> For this reform, the ANEAQ will be responsible for reviewing each university's reform pilot proposal for the 2021/22 school.

In addition to the governing structure of the university, it is critical to understand the structure of how professors are categorized and have progression opportunities, as this will influence the incentive structure that can be designed to encourage their adoption of reforms.

Higher education teaching posts in Morocco are open to candidates holding a national doctorate. While some professors, such as associate professors, only teach, many professors have both teaching and researching responsibilities. There are three types of professors who have both sets of responsibilities: Assistant Professors (PA), Qualified Professors (PH), and Teachers of Higher Education (PES). These professors are full-time employees of their university and are responsible for teaching, research, and supervision activities.

Within each category of professor researchers, there are three or four grades. Each grade includes four steps. Professors begin at the first step of Grade A and receive promotions through the steps and grades based on their time in the position, research carried out and published, contribution to national and international scientific activities, and professional and pedagogical activities. Further information on the Moroccan university system structure and governance is included in Annex I.

## HISTORY OF REFORM

The Moroccan higher education system has undergone a number of government-led reforms in the last 20 years, including the 1999–2009 Reform Plan, the 2009–2012 Emergency Plan, and the 2015–2030 Strategic Vision. These reforms have all introduced ambitious goals in an effort to increase the quality of university education. Some lasting effects have come out of these initiatives, including the introduction of the License-Master-Doctorate (LMD) system in 2003–2004, increased enrollment,<sup>28</sup> and an increase in the number of students benefiting from grants.<sup>29</sup> However, while the 2015–2030 Strategic Vision is still in force, both the 1999–2009 Reform Plan and 2009–2012 Emergency Plan are considered failures.<sup>30,31,32,33</sup> These reforms ultimately did not increase learning skills or produce a lasting decrease in dropout rates among university students. A number of causes have been identified for these failures, including poor implementation,<sup>34,35</sup> the continued inadequacy of secondary education,<sup>36</sup> the lack of resources to match the reform's objectives,<sup>37</sup> and misuse of available resources.<sup>38</sup> However, the most prominent cause for failure is identified as the top-down nature of these reforms. Students, faculty,

university leadership, and other stakeholders were not properly consulted or involved in the reform process. This led to a number of problems, including teachers being unprepared to adopt new teaching methods, universities lacking the resources to properly implement initiatives, and major process changes not aligning with the university structure. Despite good intentions and innovative ideas, the lack of communication and involvement of all affected stakeholders ultimately prevented the reforms from being successful.<sup>39,40</sup> In order to successfully reform the Moroccan higher education system, this challenge must be addressed.

The 2015–2030 Strategic Vision calls for an education system based on equity and quality of opportunity, a focus on research and innovation, the advancement and integration of the individual and society, and efficient leadership.<sup>41,42,43</sup> A major goal of this vision is to reduce drop-out rates among university students. This plan also prioritizes the empowerment of education professionals and calls for the renovation of the teaching, training, and management professions.<sup>44</sup>

## Teacher Training Reform

In the 2019–2020 school year, a reform was implemented to the teacher education program in Morocco. Prior to 2019, prospective teachers pursued an undergraduate degree in any subject, and then completed a 6–7-month pre-service training program at a CRMEF. This new reform implemented a Bachelor’s program in education (*cycle de licence de l’éducation*) that prospective teachers must complete, followed by 2 years of pedagogical training and practicums at a CRMEF. Some of the lessons learned from the first year of this reform will be important to consider as future reforms take place. First, this reform was implemented quickly. Universities were given just three months to respond and develop a program, which resulted in poorly designed programs that were not based on evidence or international best practices. Next, there was some pushback from students regarding the added year to the program; students did not understand why another year was required. In some cases, this additional year was a major financial burden, in part because there are limited opportunities for waged employment or education loans for youth in Morocco. This reform implementation also faced issues with instructors. There were not always enough qualified instructors to teach the new courses, there was no official process for evaluating teaching, and instructors did not receive support in implementing the new curriculum. Additionally, the reform increased the course load of the faculty without financial or other incentives for this increase. Reviewers of the reform predicted that without incentives for faculty to teach additional courses and learn new pedagogy, the sustainability and/or quality of the program was at risk.

Source for this textbox.<sup>45</sup>

Further information on the history of reform in the Moroccan University system is included in Annex 2.

## REASONS FOR THE LIMITED SUCCESS OF PREVIOUS REFORMS

Change management is challenging in higher education because of dispersed academic decision-making and power within higher education institutions (HEIs), ambiguity of institutional goals, interdependence of academic units and organizations, the unique culture of academia, the high status accorded to academic organizations and academicians, and other factors.<sup>46</sup> Higher education faculty members typically focus on their own teaching and research with little interest in administrative matters and



relatively low commitment to the broader objectives of their institution.<sup>47</sup> HEIs are generally run by a small number of academicians willing to devote a portion of their career to administration. These individuals are trained in their academic discipline but most lack formal training in organizational management (Spendlove, 2007).<sup>48</sup> Given the relatively weak central administrative control within HEIs and the limited interest of most academicians in administrative matters, it is not surprising that many higher education reforms do not achieve their objectives.

*“[Large classrooms] is a huge problem. Some universities have twice as many students and half the staff. Even in language skill courses, you can have 600 students in the classroom”.*

– English Professor

A series of higher education reforms in Morocco since 2000 have produced limited results related to integration with the job market, flexibility allowing change in major, dropout rates, and graduation rates.<sup>49</sup> The reforms have increased the number of HEIs and the number of students but have failed to address issues of relevance and quality of higher education (Mansouri & Moumine, 2017).<sup>50</sup> These deficiencies were noted in a royal speech by King Mohammed VI in 2013, who spoke of universities that have become “factories that produce unemployable graduates, particularly in certain obsolete subjects.”<sup>51</sup> Five factors contributing to the limited outcomes of the reforms are discussed below.

- **Processes of change:** The reforms were centrally driven, planned and implemented with inadequate deliberation and input from universities, including administrators, teachers, and students.<sup>52</sup> The reforms were top-down, an approach that seldom succeeds, especially in higher education.<sup>53</sup> When faculty have little or no opportunity for involvement in the planning of change, the consequence is indifference, resistance, or even aggressive opposition to proposed changes.<sup>54</sup>
- **Incentives for change:** Accountability for academic and human resource performance is low in general in Moroccan higher education.<sup>55</sup> In the reforms of the past two decades, outcomes at the institutional level were not measured systematically and funding was not tied to performance contracts.<sup>56</sup> At the individual level, incentives for academic and administrative staff to embrace the reforms were dampened by the lack of university-level autonomy in hiring and promotion decisions.<sup>57</sup>
- **Information and evidence:** The previous reforms were insufficiently guided by information and analysis on student retention, the gap between the universities’ training offerings and the skill and knowledge needs of employers, and other issues on which the reforms focused. During most of the previous reforms, there was no research to shed light on the issue of attrition in higher education.<sup>58</sup> More recently, in 2018, a study of attrition was published, but it covered only three public universities representing just one-fourth of all public university students. An online literature search by the DEEP team found no university tracer studies of graduates in Morocco. The Skills Development Authority (TESDA) in the *Département de la Formation Professionnelle* conducts tracer studies, but only for TVET (Technical Vocational Education and Training) graduates.<sup>59</sup> Though the country has a Labor Market Information System, it focuses on occupations and provides little information relevant to skills and specific knowledge sought by employers.
- **Human capacity:** The success of the reforms was limited by both the size and skill set of the academic workforce.<sup>60</sup> The student population grew by 88 percent from 2010 to 2016, while the number of higher education instructors grew by only 26 percent, resulting in larger class size overall and shortages of teachers in some specialty areas.<sup>61</sup> One of the stated goals of the

reforms was to introduce learner-centered education, but teachers were unprepared to teach using this approach and received no training in the curricular approaches and pedagogical methods that promote active learning by students.<sup>62</sup> Because of *massification* (significant increases in enrolment) without proportionate increases in academic staff and classroom facilities, training alone would have been insufficient to implement learner-centered education.

- **Financial resources:** The financial resources available to higher education reform were insufficient for undertaking the hiring, programmatic, and infrastructure changes needed to reach the stated goals.<sup>63</sup> Funding for additional academic staff, classroom facilities, laboratories, and instructional and research equipment was far lower than the level required to successfully implement the reforms. The funding gap arose not only from inadequate government budgetary allocation but also from the wastage of financial and human resources associated with student attrition and delay in graduation. This wastage is enormous. Over the period 2012–2017, at three public universities enrolling around 25 percent of all public university students, the financial resources devoted to educating students who dropped out or failed to graduate on schedule accounted for 68 percent of operating costs, according to a report by the Higher Council on Education, Training, and Scientific Research (2018).

## 4. CONSIDERATIONS FOR THE REFORM

The Moroccan university system includes both assets that will facilitate the BA with foundation year reforms as well as impediments that will hinder these reforms. In this section, the paper outlines the assets and challenges with regards to the reform, organized around five distinct sections: soft skills and study skills development, English language instruction, general education, assessment, and e-learning.

### SOFT SKILLS AND STUDY SKILLS

The definition of “soft skills” is nebulous, as are the exact skills that fall under the umbrella of “soft skills.” Participants in the consultations framed soft skills differently. For example, while most of the university professors consulted for this project consider “critical thinking” to be a soft skill, others suggested it was a core competency. Other professors took a broader view of soft skills, indicating that soft skills reflect students’ ability to “to communicate with people, react to people in a positive way, [are] able to go into a variety of experiences with an open mind, having some deeper ideas about humanity.”<sup>64</sup> Faculty and students participating in FGDs reported that although they were familiar with the term “soft skills,” there was considerable ambiguity around the concept. For example, one professor noted, “There is still an ambiguity about these skills among professors. It can be like sports practice, or perhaps these are skills that we teach in our daily academic work with students, but we do not know the exact content.” Another professor said, “When I heard about this concept, I searched for it in Google. But I notice that the faculty do not know its meaning. In fact, we do not have an accurate knowledge of what is meant by these skills.” Some students indicated that soft skills means “everything that helps the student to be well-oriented to the university and into the job market.” During FGDs, students highlighted skills such as communication, cooperation, initiative, persistence, and determination as well as supportive peer-to-peer and student-to-faculty relationships as important for their success at university.

The text box on this page provides the definition of soft skills and study skills that we use in this paper. These definitions have been developed based on the literature as well as inputs from the consultations and primary research.

FGDs with faculty and students indicated that there is a perceived mismatch between the skills students need to succeed in the university and those they need for the workforce. In fact, several faculty members indicated that they did not want the university to be treated as a vocational technical program and that the university should have different goals. Exhibit 3 provides an illustration of those soft skills identified by the Career Center team through employer surveys as important for the workforce (blue circle), those soft skills identified by faculty in FGDs as important for university students (red circle), and those soft skills identified by students as necessary for university success (gray circle). The figure also marks the soft skills prioritized by the Ministry (in reform documents) as well as those skills identified in the Moroccan literature as important for university success. Overwhelmingly, a majority of the valued soft skills are shared by faculty, students, and the workforce. Five of the seven soft skills prioritized by the Ministry were also noted by faculty and student participants as important for university success. It is also noteworthy that of the soft skills identified in the literature as being important, three were also identified as relevant for the workforce. These findings suggest that the distinction between those soft skills deemed important for the workforce and those deemed important for university success is minimal and that strengthening these skills through the reform efforts will be of benefit to all.

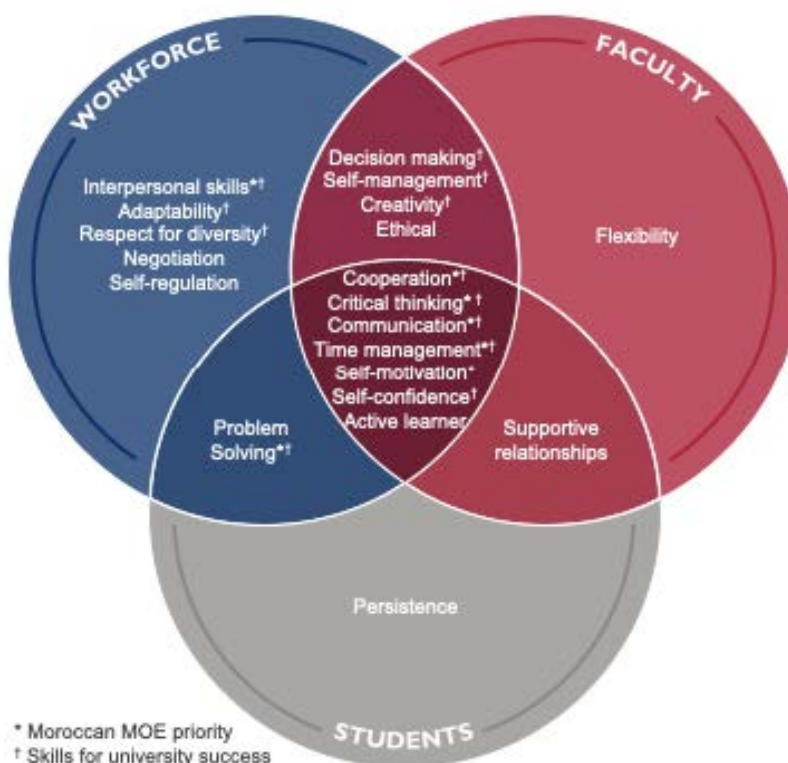
## Definitions: Soft Skills and Study Skills

**“Soft skills”** are a set of cognitive skills (e.g., attention focusing and shifting, impulse control, planning, goal setting), social skills (e.g., perspective taking, prosocial behavior, and conflict resolution), and emotional skills (e.g., emotion knowledge, emotion regulation, and empathy) that shape how individuals interact with one another (USAID, 2019). Soft skills are commonly described as the interpersonal attributes that individuals need to succeed in a variety of settings, including university and workplace. These skills help an individual adapt to changing circumstances and are thought to be essential for personal empowerment and active citizenship (UNICEF, 2017). Specific soft skills include, but are not limited to, critical thinking, problem-solving, teamwork, communication, self-motivation, self-confidence, and interpersonal skills.

**“Study skills”** are a set of strategies that help an individual organize and take in information, retain new knowledge, and recall that knowledge when needed. Study skills are also essential in helping students prepare for assessments. Study skills are discrete techniques that require practice but that can be applied to any field of study. Specific study skills include but are not limited to time management, learning style, note taking, listening skills, test-taking, writing, and reading comprehension.



Exhibit 3: Overlap in soft skills prioritization by stakeholder



## ASSETS RELATED TO SOFT SKILLS AND STUDY SKILLS

For the most part, the consultations and literature on soft skills and study skills among Moroccan university students focused on the challenges facing these students. However, there is some limited evidence that the universities do already serve to help build students' soft skills throughout their time in university. For example, using cross-sectional designs, both Amrous and Najmaoui (2016) and Kissani and Boudihaj (2019) found significantly greater soft skill levels in students in upper years as compared to lower years at the same university.<sup>65,66</sup> Relatedly, Mourhir and Kissani (2020) found that upper year students credited self-identified soft skill improvement to previous course work.<sup>67</sup> Although faculty members and employers indicate that overall skill levels should be increased, these studies provide some indication that there are successful practices to build on and enhance. In addition to these findings, there are assets or examples within the university system of approaches used in the development of soft skills programming.

## ASSETS RELATED TO PROGRAMMING AND PRACTICES WITHIN UNIVERSITIES

There have been several small-scale studies of different classroom practices, academic programs, and extracurricular activities designed to provide students the opportunity to develop their soft and study skills. Although these studies involve small sample sizes and limited statistical rigor, they provide important examples of promising practices on which to build. Exhibit 4 offers brief descriptions of these practices, programs, and activities and their successes.

Exhibit 4: Classroom approaches, academic programs, and extracurricular activities that support soft skills development among university students

NAME	BRIEF DESCRIPTION	KEY OUTCOMES
<p>University Career Centers, Najahi – <i>Prêt pour l'emploi</i> training, implemented at several faculties across the country</p>	<p>The Career Centers have been established at several faculties across the country, including a virtual center. The centers provided diagnostic tools and counseling to help youth discover their potential, learn about market information on career pathways, gain work readiness training (soft skills and job search skills), and gain private sector connections. Najahi is the curriculum used at the centers.</p>	<p>Although evaluations of this program did not evaluate soft skills, this program found positive outcomes in job placement and work success. For example, 63 percent of program beneficiaries who sought a job or internship found one, and employers reported satisfaction with beneficiaries.<sup>68</sup></p>
<p>Project-based learning classroom approach, implemented at the <i>Ecole Nationale Supérieure d'Arts et Métiers</i> (ENSAM) in Meknes</p>	<p>The project-based learning approach is a student-centered pedagogy that involves students working on extended projects to develop their knowledge and skills. In the case of this project, this approach was implemented in English classes at ENSAM.</p>	<p>Students self-identified as improving their critical thinking skills through classroom activities focused on practicing evaluation, critical listening, receiving feedback, and writing reports. Furthermore, activities that included interacting with classmates, collaborating with a team, distributing roles among team members, and managing presentation delivery helped improve their interpersonal skills. Students also felt the projects built their information literacy.<sup>69</sup></p>
<p>Student-led discussion classroom approach, implemented at the National School of Applied Sciences in Fez</p>	<p>In this approach, students took turns teaching their peers in an industrial engineering class, with guidance and support from the teacher. This was meant to build a range of soft skills, including responsibility, self-esteem, teamwork, critical thinking, communication, and presentation techniques.</p>	<p>While the program did not measure changes in soft skills, the students saw improvements in their exam scores as a result of the program.<sup>70</sup></p>

NAME	BRIEF DESCRIPTION	KEY OUTCOMES
Improved note-taking techniques, implemented in English classes at Ibn Tofail University	Students were instructed in five note-taking techniques: the Cornell technique, outlining, mapping, charting, and sentence note-taking. The program was implemented in some English classes in the university.	The study of this approach included both treatment and control groups; however, since no baseline was included, results cannot be attributed to the approach. Nevertheless, students in the treatment group showed much higher reading comprehension scores at the end of the semester than their peers in another class section who did not receive this training. <sup>71</sup>
Blended learning classroom approach, implemented at Chouaib Doukkali University	The blended learning approach involves the integration of technology-based remote learning with classroom approaches. In this case, the technology-based materials focused on supplemental materials to augment what was discussed in class. This allows time for students to pursue learning at their own pace outside the classroom. In this case, the approach was integrated into two English classes at the university, a first semester class focused on study skills and a more advanced class focused on oral communication.	Students self-identified as improving their study skills and communication skills through the blended learning approach. They felt that this approach gave them more time to practice materials and let them receive critical feedback privately online, so they would not feel embarrassed. Furthermore, they felt the course improved their time management, critical thinking, and problem-solving abilities, and some students reported greater self-confidence and self-esteem. <sup>72</sup>
Community service and service-learning approaches, implemented initially at Al Akhawayn University, some attempts at public universities	In this program, students provide support to a local organization, including working to jointly identify a challenge facing the organization and how the student can support responding to the challenge. While originally a 60-hour community service requirement, Al Akhawayn has recently implemented this as a service-learning graduation requirement.	Student participants in a study of the community service version of the requirement self-reported improvements in their soft skills, including improving their team work, presentation abilities, and perseverance. <sup>73</sup> The service-learning requirement has not included an evaluation of soft skills in Morocco, but anecdotal reports indicate skill improvements. <sup>74</sup>
The flipped classroom approach, implemented at Mohammed I University	In the flipped classroom approach, students first receive exposure to materials outside of class and then practice analyzing and using the materials in the classroom. In this case, this approach was integrated into a creativity training course.	After completing the program, the students self-assessed as having built skills in: (1) divergent thinking, (2) critical thinking, (3) idea generation, and (4) time management. The students felt that they could apply these skills in other classrooms and outside of academic settings. <sup>75</sup>

NAME	BRIEF DESCRIPTION	KEY OUTCOMES
Taqaddam Project at the universities of Kenitra, Oujda, and Beni Mellal	Initially designed for integration in tertiary Technical Vocational Education and Training (TVET) institutions, the Taqaddam project has begun to be piloted in university settings. As in TVET settings, the program focuses on developing students' critical thinking, creativity, cooperation, and communication by means of instructor training, student-centered workshops, activity-based classes, out-of-classroom work, and a community project.	Taqaddam has not yet been formally evaluated in Morocco (it has been in other MENA countries), however anecdotal evidence from students indicates that they feel they have grown their skills due to the program. Furthermore, teachers in the TVET iteration of the program in Morocco have reported changing their classroom practice in their regular topics due to Taqaddam training. <sup>76</sup>
Critical thinking integration into <i>Classes Préparatoires aux Grandes Ecoles</i> , implemented at <i>Grandes Ecoles</i> across the country	There is no standardized approach to integrating, or even defining, critical thinking into these classes; every instructor is expected to find ways of doing so.	In an evaluation of these courses, both students and instructors felt that these courses build students' critical thinking skills. Even though instructors noted they had not been trained to teach critical thinking, the evaluators noted that many used techniques to help foster critical thinking skills, such as Socratic discussions and analytical group work. <sup>77</sup>

As shown in Exhibit 4, classroom practices to build soft skills and study skills have included (1) integrating student centered learning techniques in classroom settings, such as project-based learning and student-led discussion, (2) providing instruction on processes for specific study skills (particularly note-taking), and (3) setting aside time for students to practice skills either inside or outside the classroom, particularly through the flipped classroom and blended learning approaches. The evaluations of these practices have generally found that students enjoyed the classes that used these practices, responded well to them, and felt they had built their skills. However, only the explicit study of note-taking techniques (Koumachi 2020) used an objective measure of whether students actually built their skills.

Outside of the classroom, one programming approach that has been used at both public and private universities in Morocco is service learning. In fact, service learning has been made a graduation requirement at Al Akhawayn University. There have also been attempts to integrate service learning and community engagement projects at public universities, though these have thus far been less successful due to limited administrative buy-in.<sup>78</sup>

Professors who have worked on service learning and community engagement projects with students noted that these projects can help students develop various soft skills, including confidence, compassion, social awareness, planning, teamwork, interpersonal skills, self-reflection (self-awareness), leadership, problem-solving, and negotiation (communication).<sup>79</sup> One of these professors noted that, outside of Morocco, student participation in service learning has been shown to improve students' overall academic achievement, though no study has yet attempted to establish if this is true in Morocco.

Professors at Al Akhawayn note that it took a long time to develop the program to its current iteration and to do so required extensive faculty buy-in, including at least one champion in each academic department in the university. The faculty who spearheaded this work led workshops on how to integrate service learning into classwork and supported syllabus development. The university incentivized integrating service learning by reducing faculty course loads (this requires hiring more full-time and part-time staff), and providing travel stipends for faculty to meet with community representatives to organize service-learning opportunities. The program also required extensive partnership building with organizations so they would be open and available to working with students. These respondents felt that similar programming was feasible at public universities, though it would require support for (and from) both professors and the administration.<sup>80</sup> Professors at public universities noted that there is already student interest in these sorts of activities.<sup>81</sup>

### **ASSETS RELATED TO PROGRAMMING OUTSIDE OF UNIVERSITIES**

In addition to programs that were based at universities and designed for university students, there have been other programs in Morocco aimed at university students as well as out-of-school youth, youth in TVET programs, and some older high school students. For example, the 100 Hours to Success program involved a 100-hour training course focused on financial education, life skills, and business and entrepreneurial skills. In the quantitative evaluation, the program showed some promising results in terms of increasing all participants' financial literacy and likelihood of opening a bank account, and increased the likelihood of men, wealthier participants, and older participants of entering university. The intervention otherwise showed no effects, including around changes in self-assessments of self-efficacy, leadership, teamwork, problem solving, and willingness to take risks among treatment participants.<sup>82</sup>

In the qualitative component of the evaluation, however, participants identified improvements in several soft skills, including self-confidence, emotional control, and anger management in communication with others. In fact, many participants felt the soft skills components were among the most valuable, and program instructors felt that these were the areas where participants were most engaged. The instructors identified several reasons for this, including students' ability to connect the material with their day-to-day lives—the fact that the material was repeated frequently in different ways, the fact they could use student- and story-centered approaches, the fact that in a mixed-age classroom setting this was where students had common experiences, and the fact that these modules, unlike the others, were taught wholly in Darija.<sup>83</sup>

### **ASSETS RELATED TO UNIVERSITY STRUCTURE**

In addition to these existing promising programs and practices, some participants in the consultations identified additional structural assets in the universities for supporting soft skill and study skill development. For example, several professors participating in the focus groups noted that many faculty members make a strong effort to engage with their students and that this cooperation between students and faculty can help students overcome academic challenges. The lack of office space and the large number of advisees was also noted as a challenge to doing so. Additionally, one professor at a public university noted that there is a law that requires student participation in university decision-making mechanisms, such as the university council, which could provide an opportunity for students to practice the skill of democratic decision-making. However, in practice, this structure is not well utilized.<sup>84</sup> The requirement that students complete a capstone research project in their last year is another potentially valuable opportunity for students to build soft skills by providing students' opportunities to practice skills such as planning, organization, perseverance in the face of challenges, and, of course, critical thinking. However as noted in the next section, poor implementation has plagued this structural asset.<sup>85</sup>

## CHALLENGES RELATED TO SOFT SKILLS AND STUDY SKILLS

Moroccan university students face multiple challenges in developing their soft skills and study skills. These challenges largely break into three areas: (1) those related to their professors' attitudes and training, (2) those related to structural and infrastructural issues at the university, and (3) those related to the soft skill preparation the students have had prior to entering the university.

### CHALLENGES RELATED TO UNIVERSITY PROFESSORS' ATTITUDES AND TRAINING

Regarding challenges related to university professors' attitudes and training, there is a perception that university professors do not see building students' soft skills as part of their job. Professors with these beliefs perceive their role to be transmitters of knowledge, and they often do not ask or require their students to become active learners in their classrooms. Therefore, the students do not have the opportunity to develop soft skills.<sup>86</sup> Faculty who participated in the FGDs held differing views regarding soft skills instruction. One professor believed that soft skills “must [only] be taught voluntarily to those students who want them according to their needs and not all students are required to study them,” while another professor noted “the teaching of these skills should be mandatory for the faculty and the student because those who can succeed in the job market are students who possess these skills.” One professor noted that “the Ministry is the one that controls ... the contents of teaching, and the professor will only teach that content and he will not expand the content of the course.” Finally, several faculty members raised concerns about soft skills units over-shadowing core content and indicated that “complementarity and balance” would be necessary if soft skills units were introduced into the curriculum.

Even for those professors who do believe that fostering students' soft skills is part of their role, both Belghiti et al. (2016) and Chouari and Nachit (2016) noted that professors do not receive instruction in how to teach soft skills and thus do not feel prepared to do so. Participants in the faculty FGDs felt that either new faculty would be needed to teach soft skills or current faculty would need training in how to teach these skills, which, they noted, would require infrastructure and resource support by the Ministry of Education. This lack of training also applies to those faculty members who have been assigned to teach courses explicitly devoted to teaching or developing soft skills.<sup>87, 88</sup> Professors have not received training in interactive, student-focused approaches and often fall back to lecture-based approaches (which are also frequently necessary due to large class sizes).

### CHALLENGES RELATED TO UNIVERSITY STRUCTURE AND INFRASTRUCTURE

Regarding challenges related to the university structure and infrastructure, large size was the single most identified barrier to implementing effective soft skills programs and practices in both the literature, consultations (indeed, every single respondent cited this as a challenge), and FGDs with faculty and students.<sup>89,90,91,92</sup> One professor indicated that “on a theoretical level, this system is ambitious and rather beautiful but from a practical point of view, we have very few teachers compared to the number of students we have.” Professors cannot adopt student-centered learning approaches or use effective assessment tools in classrooms with over 100 students. As a consequence, some of the most effective methods for teaching soft skills are not feasible in many university classes. Even students' capstone projects which, as noted before, have the potential to provide students with opportunities to strengthen their skills, become less effective given large student/faculty supervisor ratios. These large ratios (reported as 20 students per supervisor in Zeddari (2018) and as many as 70 students per supervisor by one faculty respondent) greatly limit the support provided to each student. The capstone projects suffer doubly as a result of large class sizes because large classes in students' prior studies prevent students from developing the critical thinking skills and practicing the research methodologies to conduct



rigorous research projects.<sup>93</sup> As a result, students are frequently underprepared for a program that could be an asset in building their skills.

As a way to mitigate the effect of large class sizes, some courses focused on soft skills and study skills have attempted to integrate a blended learning approach using both virtual and in-person components. The virtual portions theoretically allow more opportunities for students to practice skills and study on their own. However, limited internet access can stymie these efforts. For example, in addition to the pedagogical issues described above, Erguig (2018) found that students in a first semester study skills course at Chouaib Doukkali University in El Jadida did not have sufficient online resources to access video and audio files posted online, and therefore were not able to succeed in the course.<sup>94</sup>

Beyond large class sizes, consultation respondents noted there were other challenges related to university structure that can limit students' ability to practice and develop soft skills. For example, one respondent noted that although the University Councils are required by law to include students, their role is frequently quite limited. According to this respondent, in most cases, when the councils have an agenda around serious issues in the university, students are not invited to participate. This means that students do not get to practice inclusive decision-making and are frequently disengaged from university governance and the opportunities to grow their soft skills through this participation. This respondent also noted that limited communication channels with their professors and university administration restricts students' ability to build effective cooperation and communication skills.<sup>95</sup> Similarly, students have limited opportunities to participate in extracurricular activities that could improve their soft skills, such as sports activities, clubs, and cultural activities. Where they exist, such activities have been correlated with stronger student academic performance and may have positive effects on soft skill development as well.<sup>96</sup> FGD participants also indicated that "there are no areas in which the student can build these skills. There are no factories and no partnership between the university [and other organizations] ." The lack of resources to devote to such activities represents another structural constraint of the universities.

## **CHALLENGES RELATED TO STUDENTS' SOFT SKILL PREPARATION AND ATTITUDES**

Both the literature and some respondents highlighted that Moroccan students do not have sufficient opportunity in secondary school to develop their soft skills and study skills to the extent needed to succeed at the university level. During FGDs, faculty stated that students' lack of success was not "a university issue" but instead a lack of preparation in secondary school combined with a lack of coordination between high school and the university. Respondents noted that students were frequently not able to practice critical thinking, academic independence, studying, and emotional intelligence in secondary school since secondary school instruction in Morocco relies on teacher-centric teaching practices, such as rote learning, memorization, and completing tasks following only the steps provided by the teacher. As a result, students at the university level have built the skills to memorize and repeat information, but many have limited ability to develop plans to independently study or analyze information and manage their time appropriately.<sup>97</sup> One participant in the faculty FGDs noted that "the student must learn these soft skills in high school and continue to learn them gradually in the university" in an effort to create bridges across high school and university that would better support the students and their adjustment to university.

Several studies focus on skills related to critical thinking. In all of these studies, students in their first year at university could demonstrate the skills they practiced in secondary school, but could not use more complex, analytical skills. For example, El Mouhtarim (2018) found that first year university students had only a basic level of reading comprehension; they could comprehend the words on the

page but did not have inferential or analytical abilities and were unfamiliar with more advanced comprehension strategies, such as guessing word meaning from context, text analysis, describing a problem from the text, considering options to resolve the problem, evaluating credibility, judging evidence relevance, and questioning the text, some of which are skills that extend beyond reading comprehension to critical thinking (as defined in the study).<sup>98</sup> Similarly, Amrous and Nejmaoui (2016) found that first year students were moderately but significantly stronger at constructing a written argument as compared to evaluating a written argument. They hypothesize that a driver of this difference is that students are taught how to write argumentative essays in Arabic, French, and English in secondary school, but are not taught how to evaluate the quality of argumentative essays in any language. Notably, these students did not demonstrate high ability at either skill, both of which were considered components of critical thinking in the study.<sup>99</sup> Although the vast majority of studies that describe Moroccan secondary school student soft skill abilities focus on critical thinking, at least one study focuses on a wider range of skills. This study, an internal report from a donor who prefers to remain anonymous, found that secondary school graduates had widespread limitations in a range of skills, including time management (particularly punctuality), interpersonal skills, professional presentation, and professional behavior. Furthermore, the report noted the<sup>100</sup> secondary school curriculum and rigid pedagogy as limiting students' ability to develop their creativity, critical-thinking, and problem-solving skills. In contrast, faculty participants in the FGDs commonly highlighted skills like motivation, self-preparedness, independence, and time management as the reason students are able to overcome academic challenges suggesting these skills are valuable for university success.

In addition to the link between soft skills and secondary school education, some respondents cited students' lack of interest or regard for soft skills as another potential barrier to strengthening these skills while at the university. For example, one respondent noted that some students feel there is no need to develop critical thinking because they have access to information on the internet.<sup>101</sup> One professor noted that "students are used to compiling lessons instead of preparing them on a daily basis ... so they memorize in preparation for the exam" and do not use soft skills or study skills. Similarly, Zeddari (2018) and some respondents report that students will plagiarize or cheat in other ways on their capstone projects when they are not intending to go into academia as they view the projects as just a box to check rather than a way to build skills for employment.<sup>102,103</sup> Several faculty respondents also noted that the university is often a student's "last resort," which often results in a lack of motivation and engagement in his studies. One professor stated that "he has no vision or goal related to his studies; he just came to be enrolled in college."

Participants in the student focus groups noted many of the same challenges that faculty highlighted with respect to soft skills and study skills. For example, one student commented that the "University system differs from high school; there is difficulty in integrating with the new system." Another student noted that study skills were a barrier to success—indicated that if a "student does not know the methodology of working at the university ... he fails."



# ENGLISH/FRENCH LANGUAGE INSTRUCTION

One of the reform’s objectives is to strengthen the English language ability of university graduates. This, in turn, will make it easier for graduates to find jobs, both abroad and in Morocco itself, where English is increasingly valued as a job skill (MOE, 2020; British Council, 2016). It will also help graduates participate in international conferences, read and publish in peer-reviewed journals, and study abroad. By the mid-twentieth century, English had become the global language of science and scholarship. With the rise of the internet and globalization in the latter years of the century and in the new millennium, this domination of English as the *lingua franca* has only increased. The top 50 scientific journals are published in English, as are the vast majority of internationally circulated scholarly articles. The reform aims to achieve the objective of strengthening the English language ability of university students in two ways: 1) include English language courses in the foundation year, to help first-year students strengthen their proficiency, and 2) gradually introduce English as a language of instruction, referred to as English Medium of Instruction (EMI), in at least one program in public universities. We discuss these changes in more detail below.

## ASSETS RELATED TO ENGLISH LANGUAGE INSTRUCTION

There is much capacity for English language instruction in Morocco. All 13 public universities have Departments of English that are open access. Al Akhawayn University, the most prestigious in the country, uses English as its language of instruction. Other HEIs, such as the International Institute of Higher Education, the International University of Rabat, and the Private Institute of Management Technology also use English as a language of instruction, in some cases alongside French. Foreign-funded organizations, such as the [American Cultural Association](#) (ACA), [AMIDEAST](#), the [British Council](#), and the U.S. embassy’s [Regional English Language Office](#) (RELO), offer English courses, as do private English language schools (Errihani, 2017). Exhibit 5 provides more details about these organizations.

There are also, at least in theory, multiple opportunities for professional development for English teachers. AMIDEAST conducts a [Professional Certificate in English Language Teaching](#) (PCELT) that provides training in learner-centered methods. The [Moroccan Association of English Teachers](#) (MATE) produces teaching and learning materials and organizes conferences where educators can network. The ACA and the British Council also provide training. However, while these opportunities are a rich source of knowledge of English language instruction, they are not necessarily accessible to public university teachers. The PCELT, for example, is expensive—the fee is US\$1,800—and its methods may be difficult to adopt in large class sizes (personal communication, Jan. 14, 2021). MATE’s materials, meanwhile, are aimed at middle and high school teachers and would need to be adapted to the university level.

### Definitions: English Language Instruction

**English for Academic Purposes (EAP)** commonly known as Academic English, entails training students, usually in a higher education setting, to use language appropriately for study.

**English for Specific Purposes (ESP)** is centered on the language appropriate for a particular discipline. This approach includes a review of grammar, lexis, register, study skills, and discourse conventions of the genre or field of study.

Exhibit 5: Details about English language instruction capacity in Morocco

HEI OR ORGANIZATION	ENGLISH LANGUAGE INSTRUCTION CAPACITY
13 public universities	Departments of English are open access
Al Akhawayn University	Founded in 1995 as a public university that is privately managed; first Moroccan HEI to adopt English as a language of instruction
International Institute of Higher Education International University of Rabat Private Institute of Management Technology	Use English as a language of instruction, in some cases along with French
Foreign-funded organizations	Includes ACA, AMIDEAST, the British Council, and RELO, which provide English language courses and workshops and other professional development opportunities
Private language schools	Unregulated by the Ministry; provide more affordable alternatives to foreign-funded language courses

Source: Errihani (2017)

There is also much innovation in English language instruction in public universities. Educators are experimenting with blended learning, service learning, and student-centered teaching methods. We discuss these innovations in more detail below and note lessons learned from their implementation.

- Chouaib Doukkali University and Hassan II University have piloted **blended learning** in English courses. In one course, educators posted podcasts and encouraged students to blog, while in other courses, educators assigned activities on Moodle, an online learning platform. Students felt that the activities strengthened their English skills and digital skills and boosted self-confidence (Laaboudi & Erguig, 2016; Yeou, 2016; Ziad, 2016). Elsewhere in the country, educators are using flipped classrooms, with students completing English lessons at home using screencasts (Bensoukas, 2016). However, not all educators have access to ICT (Information Communications, and Technology) tools, and many say they need training on how to use them (Dellal, 2020; Khtou, 2020; Abid, 2016). It can also be difficult for students who do not have computers or internet at home to participate in these activities (Laaboudi & Erguig, 2016).
- Al Akhawayn University and Hassan II University have incorporated **service learning** into English courses. Service learning combines classroom instruction with volunteer and community service activities. For these programs, university students tutor high school students in English or collaborate with them on group projects. Students also volunteer with non-governmental organizations (NGOs), youth clubs, and other community groups. The goal is to help students practice their language skills while gaining work experience and strengthening soft skills. While these programs have not been robustly evaluated, there is evidence that they can motivate learners and strengthen English language ability (Zaidoune, 2020; Seilstad, 2014). At the same time, these programs may be difficult to sustain or scale up as they require a good deal of institutional support, planning, and coordination between universities, high schools, and community groups.
- Several universities are using **student-centered teaching methods** to strengthen both language skills and soft skills. At Moulay Ismail University, engineering students study English using project-based learning, in which they collaborate on a complex activity. Students have reported that the approach strengthens their critical thinking and interpersonal skills (El Ajraoui

& Zerouh, 2019). At Chouaib Doukkali University, instructors are integrating task-based language teaching into their instruction. As a result, students are conducting task-based activities, practicing English in real-life scenarios like conducting an interview (Bouzid, 2016). Elsewhere in Morocco, educators are helping students think critically and boost self-confidence through debates, teamwork, and peer reviews (Belghiti, El Allame, & Chana, 2016). Educators are taking it upon themselves to adopt these methods and would likely benefit from professional development and networking opportunities to refine and share their approach.

## CHALLENGES RELATED TO ENGLISH LANGUAGE INSTRUCTION

While there is much capacity and innovation in English language instruction, there are also challenges that hinder student learning. Broadly, these challenges include limited professional development and language proficiency among educators, large class sizes, and low incoming levels of English proficiency among students, which may complicate efforts to introduce Foundation Year competency and task-based English language classes and English as a medium of instruction. Moreover, there are infrastructure challenges related to the introduction of EMI. We discuss these challenges further below.

- At the university level, educators often have **limited professional development**. Anecdotal evidence suggests many begin teaching soon after earning their PhD, without any training in pedagogy (Khtou, 2020). Some English language educators say they feel inadequately prepared to teach effectively (personal communication, Jan. 25, 2021). Surveys also find that educators understand student-centered methods, such as group work and peer assessment. At the same time, however, recognizing effective teaching methods is not the same as implementing those methods (Ichebah, 2020). Indeed, discussions with public university professors indicate that many rely on traditional, teacher-centered methods such as lectures and memorization. While institutions such as the *Centres Pédagogiques Régionaux* (Pedagogical Regional Centers) and *Ecoles Normales Supérieures* (Higher Normal Schools) provide training, they are aimed at the primary and secondary level. The lack of focus on and understanding of the challenges of higher education pedagogy and curricula make such resources less helpful for such educators. Other opportunities, such as foreign-funded training courses, may not be accessible due to their cost.
- **Large class sizes** are an additional impediment to learning. A survey of English departments in six public universities in 2018 found, on average, close to 300 students per classroom and 100 students per teacher. Some departments reported nearly 700 students per classroom and 200 students per teacher (Dellal, 2020). Overcrowding is greatest in the first year of university, when new students would likely benefit from abundant opportunities to practice their English and receive personal attention from teachers. Yet unsurprisingly, educators indicate that, due to large class sizes, students are often unable to practice during class and most assessments are written tests (personal communication, Jan. 22, 2021). Overcrowding is also an issue at the secondary level, with 70 percent of students in surveys saying it has a negative impact on their English studies (Baba Khouya, 2018). In addition to pedagogical constraints of large classes, such overcrowding may limit the development of English among students.
- Anecdotal evidence also suggests that students are **unprepared to use English** as a language of instruction. Moroccans typically score overall at the B2 level in the Test of English as a Foreign Language (TOEFL), indicating a capacity to express oneself in English on a range of topics. However, TOEFL results are not representative of the population pursuing higher education in Morocco; TOEFL results reflect those most eager to study English abroad (ETS, 2020; British Council, 2016). Conversations with educators suggest most public university students have basic English-speaking ability but very low reading and writing skills (personal

communications, Jan. 13-25, 2021). This means that they have basic oral and aural communicative skills and knowledge of grammar and vocabulary while they need support with general and academic reading and writing skills development. Faculty have voiced concerns about the varying linguistic abilities of students and students have expressed frustration with undifferentiated language learning. In large courses with students from wide-ranging language levels, it is challenging to tailor instruction to adequately meet all students' needs. Part of the problem may be that students are not adequately prepared in primary and secondary school for the content and the language demands of university.

- There is no instructional differentiation for students at varying proficiency levels and it is assumed that students enter with the same prerequisite linguistic knowledge and skills. For example, in the currently proposed Modules 1 and 2, it is assumed that students will have a pre-requisite of level A2 (equivalent to a TOEFL score of 337-459). This assumes that students finishing high school already possess English language competence as follows:
  - Reading: Can read with a large degree of independence, adapting style and speed of reading to different texts and purposes, and using appropriate reference sources selectively. Has a broad active reading vocabulary, but may experience some difficulty with low-frequency idioms.
  - Writing: Can produce clear, detailed texts on a variety of subjects related to their field of interest, synthesizing and evaluating information and arguments from a number of sources.

Similarly, the proposed Modules 3 and 4 have a pre-requisite of B1 (equivalent to a TOEFL score of 460-542). Sample competencies at this level:

- Speaking: Can reasonably fluently sustain a straightforward description of one of a variety of subjects within their field of interest, presenting it as a linear sequence of points.
- Oral comprehension: Can understand straightforward factual information about common everyday or job-related topics, identifying both general messages and specific details, provided people articulate clearly in a generally familiar variety. Can understand the main points made in clear standard language or a familiar variety on familiar matters regularly encountered at work, school, leisure, etc., including short narratives.

This suggests introducing English language and English as a medium of instruction may face similar challenges to the use of French, which has caused students to perform poorly and drop out of school due to language difficulties (Razouki et al., 2019; OECD, 2018). However, if students do not enter with at least an A2 level, reaching the B1 during the foundation year will be challenging.

- Research suggests that in many MENA countries, the **educational infrastructure does not support the English as a medium of instruction** model. (British Council, 2014; Baker & Hüttner, 2016) Anecdotal evidence points to a shortage of linguistically qualified faculty and the need for stated expectations of English language proficiency. In addition, there appear to be few organizational or pedagogical policy guidelines for effective task-based and EAP teaching and learning. Another finding is that there is little modeling of best practice in language teaching content in most faculty preparatory programs or continuing professional development offerings. In the current curricular reform, students are expected to attain B2 proficiency, but that may presume all students' have achieved the BICs, or basic communicative language skills, in secondary learning and does not take into account the students' differentiated language developmental levels. For example, some students may have already entered university with B1 and B2 proficiency and would find the material redundant. Other students may not be

linguistically prepared for B level classes during the foundation year because they enter with such low levels of proficiency. The infrastructure does not provide a mechanism to adequately assess and place students in language classes according to their linguistic proficiency levels.

## GENERAL EDUCATION

The world in which university students are preparing to live and work is complex, globally interdependent, and rapidly changing. No single academic discipline can adequately prepare students for the many dimensions of life ahead. While specialization in academic study facilitates depth of understanding on particular topics, specialization not enlightened by a broad base of knowledge from other disciplines can produce a myopia that inhibits problem-solving. In an effort to prepare graduates who are well-rounded, creative, and self-directed, many universities have developed general education curricula that expose students to the knowledge and methods of multiple disciplines while also providing students with opportunity to specialize.

The vision behind general education is both conceptual and practical. The conceptual vision focuses on how humans acquire knowledge. By studying multiple disciplines that offer alternative lenses for understanding the natural and human world, students learn to engage in conjecture and criticism that enable them to construct knowledge in an intelligible manner. The practical vision behind general education is that the critical thinking and communication skills promoted by general education curricula are also useful and important in the workplace. These skills enable students to think independently, act in a self-directed manner, and solve problems in a manner that enhances their economic value as workers and their social value as citizens.

General education curricula are diverse in the skills and habits they seek to build. Among these are critical thinking, creative thinking, written communication, oral communication, reading, quantitative literacy, information literacy, teamwork, problem solving, personal and social responsibility, civic engagement, intercultural knowledge and competence, ethical reasoning, and foundations and skills for lifelong learning. In many universities, general education is viewed as an educational setting in which soft skills and study, addressed in any earlier section of this report, can be practiced by students.

In addition to exposing students to various disciplines, general education is a means of introducing students to the world beyond their own community and country. In this vein, the Association of Colleges and Universities (AAC&U) in the United States promotes an approach to general education that uses global learning and global challenges as an organizing principle for achieving quality and relevance in undergraduate education (Al-Hendawi and Albertine, 2019). The general education curricula recommended by AAC&U are cross-disciplinary, problem-based, and focused on complex economic, social, and cultural issues of a global nature.

While general education is particularly prominent in American universities, this approach has also been adopted by a growing number of universities in other countries, including Australia, Canada, Germany, India, Japan, Netherlands, and the Philippines. As described in the section below, a growing number of universities in the Middle East now offer general education curricula.

### Definition: General Education

Education that is designed to develop learners' general knowledge, skills and competencies and literacy and numeracy skills, often to prepare students for more advanced educational programmes at the same or higher levels and to lay the foundation for lifelong learning.

-- UNESCO

The examples in Exhibit 6 highlight key features of the general education curriculum in three universities. The first two are located in the MENA region and are based on the American model of general education, according to these universities' websites. The third is located in the U.S. and is presented to allow comparison between the MENA region examples and a typical American example. All three universities have a relatively large number of required credit hours (32-40), aim to impart a diverse range of knowledge as well as soft and study skills, and are coordinated by a top academic office of the university though most of the courses are taught by academic departments. The list of required courses reveals the wide disciplinary breath of the curricula.

Exhibit 6: Key features of general education/core curricula in MENA and United States

KEY FEATURE	AL AKHWAYAN UNIVERSITY (MOROCCO)	AMERICAN UNIVERSITY OF CAIRO (EGYPT)	OHIO STATE UNIVERSITY (USA)
<b>Credits</b>	40	40	32-39
<b>Target student population</b>	Students in all majors	Students in all majors except engineering, which has its own core	All majors
<b>Targeted knowledge and skills</b>	Knowledge of world cultures and the natural environment, written and oral communication, critical thinking and quantitative reasoning, information literacy, technology literacy	Critical thinking, critical reading, written communication, collaboration, information literacy, digital literacy, civic engagement, understanding of issues that affect humanity	Critical thinking, information literacy, technological literacy, understanding of modes of thought in various disciplines, research and discovery skills, national/global cultural understanding, personal resiliency, personal/professional development
<b>Required courses (credits in parentheses)</b>	Foundations for academic success (2) Arabic/French (6) English (6) Humanities (6) History/political science (3) Social sciences (3) Physical sciences (4) Mathematics (3) Computer science (4) Public speaking (3)	Freshman writing (6) Research writing (3) Scientific thinking (3) Philosophical thinking (3) Scientific Encounters (4) Cultural Explorations (3) Humanities/social science (3) Arab world studies (6) Global studies (3) Capstone courses (6)	Writing & info. literacy (3) Mathematical & quantitative reasoning OR data analysis (3-5) Literary, visual arts, or performing arts (3) Historical/cultural studies (3) Natural science (4-5) Social/behavioral science (3) Race, ethnic, gender (3) Global citizenship (4-6) Environment, health, or sustainability (4-6)
<b>Noteworthy features</b>		Scientific Encounters and Cultural Explorations course requirements are designed specifically for non-majors	In addition to the above courses, students take 1-credit opening and closing seminars to appreciate and reflect on their general education learning
<b>High-impact practices in core curriculum</b>		Undergraduate research, community-based learning, course-based internships, capstone courses, e-portfolios	e-portfolios Service learning, study abroad, or language study can substitute for one core course
<b>Administration of core curriculum</b>	Coordinated by office of V.P. for Academic Affairs. Most core courses taught by academic departments, though foundation course is taught by a self-contained unit.	Coordinated by Academy of Liberal Arts, under Dean of Undergraduate Studies, which also teaches foundation courses. Other core courses are taught by academic departments.	Coordinated by office of Dean of Undergraduate Education. Most core courses taught by academic departments, though opening and closing seminars are under Office of Academic Enrichment.



KEY FEATURE	AL AKHWAYAN UNIVERSITY (MOROCCO)	AMERICAN UNIVERSITY OF CAIRO (EGYPT)	OHIO STATE UNIVERSITY (USA)
Source	<a href="http://www.aui.ma/en/academics/programs/gened.html">http://www.aui.ma/en/academics/programs/gened.html</a>	<a href="https://www.aucegypt.edu/academics/core-curriculum/2013-2021">https://www.aucegypt.edu/academics/core-curriculum/2013-2021</a>	<a href="https://oaa.osu.edu/ohio-state-ge-program">https://oaa.osu.edu/ohio-state-ge-program</a>

## ASSETS RELATED TO GENERAL EDUCATION

Although general education is not part of the current curriculum at public universities, the concept of general education is not new in Morocco. Core courses are required during different stages of secondary schooling and several private universities have incorporated them to varying degrees. There are also examples of general education at the university level, most notably Al Akhawayn.

### SECONDARY EDUCATION

Collegial education includes a year-long common core cycle. This includes modules focusing on developing competence in reasoning, communication, expression, organization of work, and methodological research. It also seeks to develop capacity for independent learning and flexibility, given the fluctuating demands of working life and innovations in the cultural, scientific, technological, and work environments. Upon completion of this cycle students have the option to enroll in either a *baccalaureate* in General Education (BEG) or a *baccalaureate* of Technical and Vocational Education.<sup>104</sup>

The BEG is intended to prepare students to be successful in higher education by helping them to acquire “the appropriate level of scientific, literary, economic and social education.” The BEG is a prerequisite for university studies.<sup>105</sup>

### PUBLIC UNIVERSITIES

Currently, there is no general education requirement in the *license* degree programs in public universities. All courses taken by students are directly related to their major or provide them with the tools needed to succeed in disciplinary courses.

The general education portion of the Bachelor’s curriculum proposed by the Ministry would require students to take two courses outside their academic major during the foundation year. In years 2 and 3, students would take four specialized elective courses. The intent of these courses is to give students tools needed for disciplinary courses in their major. For example, a physics student may fulfill this requirement by taking a mathematics course or a sociology student may take a statistics course.

The Ministry’s stated aim of the general education requirement is to expose students to diverse disciplines so they are capable of making an informed choice of academic major. Information about the nature of various disciplines is intended to help students select academic majors that fit well with their personal preferences. It is hoped that improved choice of major will increase students’ commitment and effort and thereby reduce absenteeism and dropout.

The general education courses can serve as a valuable asset to the foundation year in an additional way. If appropriately structured and taught, these courses provide an opportunity for students to practice the skills taught in the soft and study skill modules. Intensive practice is essential for mastery of these skills (Halpern, 1999). If critical thinking and writing are deeply embedded in the curriculum and the pedagogical methods of the two required general education courses, students will complete the

Foundation Year with mastery of soft and study skills that will enhance their success during their remaining year at the university and after graduation.

## **PRIVATE UNIVERSITIES**

Al Akhawayn University (AUI) in Ifrane is an independent, public, not-for-profit, university with enrollment of approximately 2,100 students. AUI requires all students to complete general education requirements as part of their degree programs. This carefully constructed general education curriculum is designed to give students the necessary tools, knowledge, and abilities to succeed personally and professionally. Education at AUI is designed to cultivate skills that develop critical thinking and encourage inquiring minds, as demonstrated by a breadth of knowledge and depth of understanding. From a list of eligible general education courses, students must complete at least 23 credits (eight courses) in communication, humanities, art, quantitative skills, natural sciences, linguistic proficiency, and civic engagement to fulfill general education requirements.<sup>106</sup>

General education at AUI also helps students transition to campus and sets expectations for their time there. All first-year students participate in a First-Year Experience (FYE) program designed to help them engage in the university's mission while successfully transitioning to college life and learning. FYE starts during the summer before students arrive and requires all students to enroll in a mandatory seminar each semester consisting of forums.<sup>107</sup> These forums seek to foster an awareness of the perennial questions and new challenges that confront humanity, a depth and consistency of moral judgement, the ability to speak and write with clarity and precision, a capacity and life-long desire for learning, the exchange of ideas and knowledge for development, and an awareness of other cultures beyond national borders.<sup>108</sup>

While other universities in Morocco have yet to adopt the comprehensive general education requirements of AUI, many do require core courses for specific majors and are thus familiar with the idea of a core. Aside from AUI, however, where a core exists in a Moroccan university, it generally does not provide broad exposure to different academic subjects nor does it create a shared experience or foundation for students across the university.

## **UNIVERSITIES IN THE MENA REGION**

Other universities within the MENA region have implemented general education curricula, and Morocco could draw from their experience. These include Qatar University, American University of Cairo in Egypt, and Effat University and Prince Mohammad Bin Fahd University in Saudi Arabia.<sup>109</sup> A MENA General Education Network was created to promote collaboration in general education and build relationships between universities in the region.<sup>110</sup> Unfortunately, the network, which was created at a regional conference on general education held in Qatar in 2015, is no longer active because of various political and socioeconomic challenges in the various MENA countries and their higher education systems.<sup>111</sup>

Critical thinking is a key learning outcome targeted by general education programs in the MENA region. This skill is developed through reading, writing, and oral communication projects that require students to analyze, synthesize, and apply the knowledge they are acquiring within general education and capstone courses. For example, at American University of Cairo, writing and creative projects of students are assembled cumulatively into e-portfolios so that students' progress in acquiring critical thinking and communication skills can be assessed.<sup>112</sup> At Prince Mohammad Bin Fahd University in Saudi



Arabia, critical thinking is developed through assignments in which students work as a team to analyze a problem and prepare written and oral reports.<sup>113</sup>

## CHALLENGES RELATED TO GENERAL EDUCATION

### POORLY PREPARED UNIVERSITY ENTRANTS

As noted in the Reasons for Reform section, many students entering public universities are poorly prepared for academic study. This is particularly true of students entering the open-access programs, for which there are no entrance requirements other than passing the *baccalaureate* examination.

### LACK OF GENERAL EDUCATION PRECEDENTS IN PUBLIC UNIVERSITIES

General education has not been a component of public higher education curricula in Morocco in the past. Consequently, there are no general education program models that can be borrowed from public universities in the country. Program structures for general education will have to be adapted from sources outside the public universities, including the general education program at Al Akhawayan University in Morocco and universities in other countries.

Most professors and administrators at the public universities have had little or no exposure at the tertiary level to general education and to the teaching of soft skills, such as critical thinking, that are typically part of general education curricula. Efforts to introduce general education in universities often encounter two problems with regard to faculty. First, faculty tend to resist adding a requirement that students take courses outside the major for fear that these will replace disciplinary courses. Second, faculty who have not been exposed to general education thinking, either when they were undergraduate or post-graduate students, lack understanding and mental models of how to teach from a multidisciplinary perspective or how to teach course content in a manner that develops the critical thinking skills of students. Consequently, training faculty in the nature, value, and modalities of general education will be required.

### LACK OF PUBLISHED RESEARCH ON GENERAL EDUCATION IN THE MENA REGION

Maha Al-Hendawi and her colleagues at Qatar University undertook a landscape study of general education in the MENA region and found published work on general education is “scarce, almost non-existent.”<sup>114</sup> Nonetheless, they were able to identify 50 universities in the region offering some sort of general education focused on civic engagement and citizenship, of which 20 responded to a survey. This research identified a tension between the modern and the traditional, which the authors cite as a challenge for universities in the MENA region. They observed that many general education leaders in MENA rely mostly on U.S. models rather than regional collaboration when developing programs.

Despite the dearth of published research on general education in the MENA region, the economic and social conditions and the desired educational outcomes that led universities in other world regions to adopt general education curricula are similar to those of Morocco. Common conditions include rapidly changing labor markets, mismatch between the skills of graduates and those demanded by employers, and high unemployment. Commonly desired educational outcomes include the capacity for critical thinking, effective communication, problem-solving, and life-long learning. Until more research is available on the existing and emerging general education programs in the MENA region, programmatic ideas, and models useful for Morocco can be obtained by learning from, borrowing, adapting, and aligning with other countries' experiences.

# ASSESSMENT OF STUDENT KNOWLEDGE IN HIGHER EDUCATION

The organization of tertiary education in Morocco relies on a comprehensive assessment system that regularly evaluates institutional capacity, financial and administrative management, and pedagogical programs, including assessment of knowledge (Ministry of Education, 2010).<sup>115</sup> According to Hidri and Combe (2017).<sup>116</sup> “in any educational reform, evaluation is needed to improve teaching, testing, accreditation, and curriculum reform.” Additionally, Brown (2005)<sup>117</sup> argues that, in HEIs, assessment of knowledge “needs to be “fit-for-purpose”; that is, it should enable evaluation of the extent to which learners have learned and the extent to which they can demonstrate that learning. This may require a change in assessment practices, moving from traditional teacher-led assessment methods to more student-centered methods that focus on learning outcomes (Brown, 2005; Abid, 2016<sup>118</sup>). Such changes require understanding of and commitment to these assessment principles as well as investment into the transformation of stakeholders who will both implement and be affected by these changes.

## TYPES AND PURPOSE OF KNOWLEDGE ASSESSMENTS

Assessments are processes through which some kind of appraisal or estimate is made regarding some aspect of a person (Mousavi, 2009).<sup>119</sup> They typically serve two distinct purposes: either formative or summative (Stiggins, 2017).<sup>120</sup>

- **Assessments with formative purposes** occur during a lesson and monitor students’ learning progression. Formative assessments provide information to educators on ways to adjust their teaching methods if students are struggling or to maintain their approach when students are succeeding. Assessments with formative purposes are often called assessments **for** learning. They include a range of formal and informal activities. They are generally low-stakes and may or may not be graded, and they may or may not be used in the calculation of the final grade for the course. Continuous assessment (*contrôle continu*) and classroom assessments generally have a formative purpose.
- **Assessments with summative purposes** occur at the end of a lesson, unit, or course, or can be administered independently of a course. Such assessments evaluate how well students have mastered a standard. They are thus called assessments **of** learning. They are generally high stakes and can be used for certification or promotion purposes or to determine whether students meet local, state, or national proficiency standards. They are generally also used in the calculation of the final grade for the course, and in the calculation of a student’s grade point average. Examples of assessments with summative purposes include end-of-term exams, annual assessments, thesis, admissions tests, and final presentations or projects. Other examples include qualifying examinations to determine whether a student is eligible to continue with a degree program, particularly for a doctoral degree, and licensing examinations. Note that there are a wide range and a variety of stakes within assessments with summative purposes. The extent to which an assessment is high-stakes depends not only the purpose (admission, final grade, certification) but also the perspective of the stakeholder. For a student, a midterm test may be a very high-stakes test but, compared with a certification test, may seem relatively less critical to others.

Note that the type of assessment, such as a multiple-choice exam, pop quiz, or paper, is not limited to a specific summative or formative classification. It is the stakes or purposes for which the assessment is

used, and the decisions made on the basis of the assessment, that classify an assessment as formative or summative.

Educators in HEIs tend to favor assessments with summative purposes (Rawlusk, 2018; Duncan & Buskirk-Cohen, 2011; Saifi et al., 2011). There are several reasons why. First, the tendency to organize courses around units or modules favors such assessments, and reduces available time for assessments with formative purposes (Sambell, 2016; Hernández, 2012). Some educators also believe that students are more comfortable with assessments with summative purposes since the main concern of students is presumably to simply pass the course and achieve a high grade. University professors in Morocco participating in the FGDs for this study claimed that students are preoccupied with grades, study only to pass the exam, and rarely understand the lesson. According to Boud and Falchikov (2007), students may prefer that every assignment be graded and used for summative purposes.

Assessments with summative purposes have drawbacks, however. Their high-stakes nature emphasizes what students do not know, instead of recognizing what they do know (Sambell, 2016; Boud & Falchikov, 2007). The presumed fairness of such approaches can be difficult, however, when such tests are not properly constructed. (Sambell, 2016). Perhaps the biggest drawback of assessments with summative purposes is that they focus more on grades than helping students learn, and do not ultimately prepare students for life after graduation (Rawlusk, 2018; Sambell, 2016; Duncan & Buskirk-Cohen, 2011; Boud & Falchikov, 2007).

By contrast, continuous assessments with formative purposes can bolster learning by engaging and motivating students. Such assessments are even more powerful when aligned with the final, summative assessment and can help students and professors chart progress toward standards or goals. Group activities and other types of assessment with formative purposes can engage students in taking an active role in learning, prompting deeper thinking and improving retention of the material (Rawlusk, 2018; Sambell, 2016; Eison, 2010). In recent decades, there has been a deliberate effort in many higher education institutions to administer and use continuous assignments to provide assessment and feedback earlier in the course (Boud & Molloy, 2013). However, the belief that students will not take an assignment seriously unless it is graded can push educators to treat continuous assessments more like summative-focused ones (Boud & Molloy, 2013; Hernández, 2012). Many HEIs use continuous assessments for both formative and summative purposes, using them to monitor how well students are progressing and to judge what students know (Rawlusk, 2018; Hernández, 2012). Finding the right balance between continuous assessments with formative purposes and assessments with summative purposes is something that educators—including professors in universities in Morocco—have long struggled with. In fact, Abid (2016), argues that the Moroccan educational system is built on “traditional approaches that instill memorization and good grades” rather than on the attainment of learning outcomes which makes it difficult to properly administer and use continuous assessments, a sentiment echoed by the professors and students interviewed for this study.

Using well-aligned formative assessments for learning and multiple summative assessments of learning can provide students and instructors alike with critical information regarding student progress and course improvement. The timing of such assessments is also important; the regular nature of continuous assessment is crucial for its success. When administered regularly, continuous assessments serve a primarily summative purpose and when paired with end-of-term assessments can be used to determine students’ overall course grades.

## KNOWLEDGE ASSESSMENT IN UNIVERSITIES IN MOROCCO

Article 8 of Law 01.00 stipulates that students' university course of study should include orientation, assessment, and reorientation, and further states that mastery of modules should be determined through regular assessments (Ministry of Education, 2010). In line with Law 01.00, the February 2021 National Education Standards for the BA program (*Cahier des Normes Pédagogiques Nationales – CNPN*) states “[t]he assessment of knowledge, aptitudes and competencies in each module is conducted through a standardized final written exam at the end of the semester. In addition to the end of semester exam, continuous assessments can be administered throughout the semester in the form of tests, oral assessments, assignments, presentations, internship reports or any other method as specified in the module description ... Assignments embedded in the module must be assessed, and the methods of assessment shall be specified in the module description.” The final module or course grade is calculated using the weighted scores obtained on assessment tasks. A module is successfully completed when students achieve a score of 10/20 (CNPN, 2021; European Commission, 2017<sup>121</sup>). Kaaouachi (2009)<sup>122</sup> notes several advantages to this knowledge assessment model based on continuous assessment and first introduced in Morocco with the 2003 LMD reform. Advantages include providing support to students during the learning process, measuring progress and providing guidance, providing feedback to students, combating dropout, and diversifying assessment methods. In fact, respondents viewed the LMD reform positively because of its emphasis on continuous assessment and the reduced reliance on one or very few exams. However, they also noted that while the LMD reform moved in the right direction, its full implementation remained challenging.

According to several respondents and Belhiah (2020),<sup>123</sup> professors are now spending more time planning and administering assessment activities than instructing. Prior to the LMD reform, instruction lasted from October to April, with one final exam, written or oral, administered in May and June. With the LMD reform, semesters, and thus modules, are organized into 14 weeks of instruction and two weeks of continuous and final assessments. Respondents explained that instruction time was reduced from seven to four months, while the assessment period was increased to two weeks per semester and assessment practices expanded to include continuous assessment which takes more time. One respondent stated: “There are discrepancies between academic time and examinations time. We have not given enough time to teach, so exam time should be reduced.”

Respondents further noted that students focus on passing exams and seldom attend class during the instructional period. In fact, students are not required to attend class and can sit for the exam without having ever attended class. Belhiah (2020) found that in Morocco over 67 percent of professors and students believed that instruction should center primarily on content included in exams. The divorce of instruction from assessment supports this divide; it would behoove the academic community to integrate more regular assessments during the instructional period than to keep it all at the end of a course of study.

Large class size is often cited as a challenge to the implementation of continuous assessment in Moroccan higher education classrooms (European Commission, 2017; Kaaouachi, 2009; Haouassia, 2016; FGD respondents). Professors explained that they did not follow the emphasis placed on continuous assessment because of large class sizes and a lack of resources (human, logistical and financial). Contrary to the goals of the LMD reform, the significant increases in enrollment, *la massification*, in open-access faculties has made it particularly difficult for professors to use continuous assessment methods, and reinforced the use of final exams as the preferred assessment method (Boustane, 2020,<sup>124</sup> Kaaouachi, 2009; Haouassia, 2016; European Commission, 2017; FGD respondents). Professors are devoting more time to assessment, which takes away from teaching, and use fewer

different methods of assessment, such as oral assessments or presentations, to measure learning (Belhiah, 2020). Respondents mentioned that some professors use continuous assessment, but the main purpose is to assign a final grade (summative purposes) and not help students improve their learning or professors' performance as instructors. This points to a lack of understanding on the part of professors about the formative purpose of continuous assessment. In his study of undergraduate students of French language at Hassan II University in Casablanca, Boustane (2020) found that "there is a kind of continuous assessment but not used in a formative way." In other words, assessment practices are not learning-oriented, which uses assessments' outcomes to improve the teaching and learning process. Information gleaned from the continuous assessments are not applied in any systematic way for assessment for learning. Boustane further suggests that students would benefit from using ongoing feedback to improve learning outcomes. This is confirmed by students interviewed for this review. One student mentioned that professors' "failure to inform us as students of the examination papers in order to find out what mistakes the student made" is a challenge for first-year students who struggle with academic achievement and dropout.

Respondents confirmed findings from the literature review that university professors mostly rely on assessments for summative purposes, usually relying on assessments such as short quizzes and multiple-choice end-of-semester tests, due to the large classes and lack of training in continuous assessments and ways to integrate them into learning. Respondents also claim that university professors often make their own decisions on content, teaching strategies, and knowledge assessment, which may differ greatly depending on their training or beliefs about effective instruction. One respondent explained that, within the same university, when multiple professors teach the same module, each chooses his or her own content and completely dismisses the CNPN. The respondent further states that there is no coordination amongst professors teaching the same module. One student stated: "There was no unified methodology. Each professor has a special methodology. In the exam, you do not know how to answer. Will you write an essay or answer the question directly? You don't know." This finding is confirmed in several reports and studies that note that universities, and faculties within universities, enjoy great autonomy and decision-making responsibility about how to assess students' mastery of modules (Kaaouachi, 2019; Haouassia, 2016; European Commission, 2017; Belhiah, 2020; UNESCO, 2012<sup>125</sup>). This has led to significantly divergent assessment methods and, most importantly, different assessment criteria, which raises questions of equity, reliability, validity, and credibility of assessment tools and results, despite efforts by the National Commission for the Coordination of Higher Education (*Commission Nationale de Coordination de l'Enseignement Supérieur – CNACES*), through the accreditation process, to "coordinate the criteria for...the standards for continuous assessment, examinations, defense and acceptance of scientific research" (Ministry of Education, 2010). Furthermore, the lack of transparency around assessment methods and criteria in the module descriptions makes it difficult for students to properly prepare for assessments.

## **ASSESSMENT OF SOFT SKILLS AND STUDY SKILLS IN UNIVERSITIES IN MOROCCO**

Assessment of soft skills and study skills in Moroccan universities remains limited, both in terms of program evaluations and stand-alone research. Whereas several project-specific tools have been developed and used, there is no discussion of whether or how they have been validated, and most rely on students' self-assessment rather than objective measures. An exception to this is Amrous and Nejmaoui (2016), which used the Ennis-Weir Critical Thinking Essay Test to measure critical thinking through how students evaluated an argument and whether they could spot errors in reasoning. This tool was originally developed in the U.S. context, and while the researchers did not note any challenges using the tool, they also did not describe their validation process. For communication and presentation skills specifically, El Haini (2019) reported using a rubric to evaluate students' classroom presentations on a

range of criteria related to soft skills, including consistency and clarity of content, details and organization of the work, visual display, method of presentation, ability to respond to questions accurately, and improvement in different presentations. Other projects that can develop students' soft skills, such as the service learning and community engagement projects that have been implemented at some universities, have used assessments of students' project reports and rubrics that are graded by the host organizations that students support. Although these methods have not included soft skill assessments as of this time, they could be adapted to do so.

The 100 Hours of Success Program provides one example of quantitative and qualitative evaluation soft skills. While this finding does not provide clear guidance on how best to assess soft skills in Morocco, it does indicate the importance of mixed quantitative and qualitative approaches. It should also be noted that one participant in the faculty FGDs felt that "examinations should not be organizing regarding the teaching of these skills. The evaluation of students should be based on their aptitudes and not as cognitive contents that are read and memorized."

## **ASSESSMENT OF FOREIGN LANGUAGE SKILLS IN UNIVERSITIES IN MOROCCO**

While first year students enter universities after completing the *baccalaureate* examination in either Arabic, or French and English, students' foreign language competencies remain below required levels for the successful completion of study programs at universities (CSEFRS, 2015; Bouziane, 2018<sup>126</sup>; Mellouk, 2011<sup>127</sup>; Abid, 2016). Respondents cited poor language skills in French and in English as one of the biggest impediments to students' success in universities in Morocco. To address the language gap, the BA reform includes renewed focus on the instruction of foreign languages, with a requirement that students develop proficiency in Arabic and in two foreign languages per the Ministry's Vision 2015-2030 strategy for plurilingualism (CSEFRS, 2015; Bouziane, 2018). At the same time, there is no placement exam in French or English, nor are there language standards provided that define the proficiency levels necessary to succeed at the university.

However, while language instructional methods continue to evolve to include more modern pedagogies, such as communication skills, the assessment of language skills remains traditional, focused primarily on grammar and literary analysis (Bouziane, 2018; Mellouk, 2011; Abid, 2016). According to Mellouk (2011), the assessment of language skills should be adapted to reflect the status and role of a particular language. Yet, in the Moroccan education system, the assessment of language skills has not kept pace with evolving language of instruction policies, which has resulted in a misalignment between language skills that are taught, language skills that are required in HEIs and in the workforce, and language skills that are assessed (Bouziane, 2018;). According to Coombe et al. (2020),<sup>128</sup> language learning modes and constructs should match language assessment practices "to meet the challenge raised by the realities of different languages and cultures." At the same time, many stakeholders, from students to professors to policymakers, misunderstand the concept of assessment and may understand even less the nature of language and its development. Several authors note that assessment literacy, particularly of assessment for formative purposes, is generally weak among professors and policymakers which often leads to misguided assessment policies and misuse of assessment data (Malone, 2013<sup>129</sup>; Deygers and Malone, 2019<sup>130</sup>; Coombe et al, 2020).

The Common European Framework of Reference for Languages (CEFR) on which the BA language modules are based proposes an action-oriented approach that views language learning as the "development of a range of competences, both general and in particular communicative language competences." The CEFR (2001) notes that the assessment of communicative language learning should focus on the practical use of language and include feedback to students on the "formulation, articulation,



and acoustic” of productive language. Yet, final or end-of-term exams that serve summative purposes, and which are most often used in universities in Morocco, are insufficient when it comes to language learning, specifically with communicative language teaching and student-centered approaches. Assessments with formative purposes, on the other hand, provide students with important opportunities to demonstrate the language skills they have acquired in the course of the semester (e.g., ability to summarize readings, discuss topics, write journals, conduct oral presentations). Because continuous assessment with formative purposes are so rarely used in HEIs in Morocco, students do not receive appropriate formative feedback on their ability to engage in real communication and use of the language, feedback that is critical for language learning (Ouakrime, 1993<sup>131</sup>; Brown, 2005; Hernandez, 2012; Benzeha, 2017<sup>132</sup>).

## CHANGE MANAGEMENT

Globally, universities are increasingly managed in an entrepreneurial manner to attract students, talented professors, and funding.<sup>133</sup> The reputation of universities is determined largely by teaching and research quality, which requires an enabling institutional environment. The Bachelor’s reform is an effort of the Ministry and the public universities to create conditions that make it possible for the academic staff to achieve the excellence that builds reputation and attracts national and international funding.

### Definition: Change Management

Change management is a set of principles, techniques, and prescriptions applied to the human aspects of executing major change initiatives in organizational settings.

-- Daryl P. Connor,  
Management Educator

Change management is the practice of applying a structured approach to transition an organization from a current state to a future state to achieve expected benefits.

-- Association of Change  
Management Professionals

Institutional change, such as the Bachelor’s reform, can be usefully conceptualized as a journey with a destination and path for getting there. Many universities and other organizations fail in the attempt to reform because they focus on the destination without adequate attention to the path leading there. Change management is an effort to manage the path and process of change strategically, especially the human and cultural aspects. A body of literature exists on organizational change management from which various best practices have emerged (Hayes, 2018). These practices have been adopted world-wide by many organizations, including universities, during transition periods (Fullan and Scott, 2009).

### ASSETS RELATED TO CHANGE MANAGEMENT

Several HEIs in Morocco have developed academic programs that depart from the traditional “ivory tower” model, demonstrating that major institutional change is possible in the country’s higher education system. Al Akhwayan University in Ifrane, established in 1995 by order of the Moroccan King, offers a curriculum that differs greatly from most Moroccan

universities and that embodies many of the best-practices of leading global universities. Mohammed VI Polytechnic University (UM6P) at Benguerir, a private-partnership university created in 2014, focuses on innovation and entrepreneurship in the technical and human sciences and is a national and international leader in the creation of competency-based curricula, the use of living labs for teaching and research, and the use of digital technology in instruction. Recently, RUFORUM, a consortium of 130 African universities, invited UM6P to join the organization so it can share its innovative educational ideas with other universities throughout the African continent.



## Students and Professors share the potential benefits of a successful foundation year

- “The percentage of university dropout will decrease. The student will be able to take initiatives, and he will have the ability to solve his own problems. He will gain confidence in himself. He will become an active person in society. He will be able to control the language of scientific research, that is, English.”
- “the student will be able to identify areas of knowledge and competencies outside of his specialization.”
- “the student ... Will know how to converse and discuss with others. He will know how to convince the employers in the job market, and he will succeed in his daily life.”
- “communication will be easy in the future, acquiring new skills that will help them in their professional and personal lives, and help them in the exams.”
- “a great system that will make communication between student and professor possible.”
- “the foundation year should be a transition between high school and university. It should allow ... the student to be rehabilitated in terms of all the skills that he did not acquire while in high school.”
- “this will enable the student to validate his university choice. He will know what he wants. This will give him a chance to do an orientation in a thoughtful way. It will make him overcome his weakness and difficulties in the language of instruction area.”
- “it will facilitate mobility for students on the international and national levels. The student will carry with him his earned credits wherever he migrates or moves, and the dropout rate at university will decrease.”
- “the students’ success rate will increase, and the teaching process will be easier. It is a year in favor of guiding students and improving their languages’ command. We’ll get a student who has qualifications. Our students will become like students of institutions of limited recruitment.”
- “if a student studies English, he will reach out to the world ... Thus, teaching English will enable the students with new integration chances.”

Another asset is that in interviews with public university professors and students, many of them expressed a desire for change. Interviewees expressed support for a foundation year that would facilitate the transition from high school to university by improving students’ capacity for independent thinking, study skills, and language competency. Interviewees also hope that the foundation year will help students make a better choice of major, provide them bridges to switch from one major to another, and help them to acquire skills to increase their success in the job market.

Corroborating evidence that academic staff members in Moroccan public universities are open to institutional change was found in a study conducted in five universities in 2019. Researchers from *Ecole Nationale des Sciences Appliquées* in Marrakesh surveyed 1,200 employees of Cadi Ayyad University, Hassan First University, Sidi Mohamed Ben Abdellah University, Ibn Zohr University, and Sultan Moulay Slimane University, and received over 700 responses (Allaoui and Benmoussa, 2020). The survey assessed the participants’ willingness to participate in a change project in their department that would follow a widely-used change management process. Seventy-four percent of the respondents reported willingness to participate. Factors associated with willingness to participate in the change project are dissatisfaction with current working conditions, a high level of curiosity, a positive relationship with management, and a positive relationship with work colleagues.

## CHALLENGES RELATED TO CHANGE MANAGEMENT

While the desire for change is strong and many people are willing to participate in change projects, there is also a great deal of pessimism about the likelihood that the reform will achieve the desired outcomes. Pessimism about the capacity of the higher education system to transform itself is a hindrance to adoption of the proposed changes. Leaders of the Bachelor's reform will need to demonstrate from the beginning that they are taking change management seriously and devoting adequate human and financial resources to the reform.

### FACULTY RESISTANCE

Faculty, in particular, have expressed strong concerns about the reform. Morocco's National Syndicate for Higher Education and Scientific Research, a union for academics, boycotted a national meeting to discuss the reforms early in 2020 for fear of "legitimizing the Ministry's predetermined conclusions."<sup>134</sup> Professors are concerned the reforms place additional responsibility on them, for example, teaching new courses or taking on new responsibilities, while at the same time ignoring their call for salary increases.<sup>135</sup> Another concern of faculty is that reform is needed at pre-university levels and that universities are being asked to remediate weakness that should be addressed at lower levels in the national educational system. Abdelkader Lachkar, a member of Morocco's National Syndicate for Higher Education and Scientific Research, argued the problem of ill-prepared students comes from the school system rather than the university and should be tackled there. "A preparatory year has been put in place in the new system in an attempt to bridge the gaps created by the school educational system that does not sufficiently qualify students for university study," he said. "This includes properly mastering English. It was necessary to solve the school education problem first and not amend the university system for this purpose."<sup>136</sup>

Resistance is a normal part of institutional change and for the latter to be successful, resistance must be managed. The proper way to manage resistance during institutional change is to listen and learn from it. This is especially important in higher education because faculty and often even university administrators can simply ignore plans announced from higher levels if they disagree with the changes. In fact, the freedom to ignore announced changes is greater in higher education than in most sectors. This is because teaching and research are creative activities that are essentially reinvented each time they are done. Though there are academic standards, there is no standardized "production process" that can be readily monitored for compliance with desired changes. Resistance usually contains a "kernel of truth" and wise change leaders invest in human relations that enable them to understand and react in a positive way to the underlying causes of resistance. This means providing professors and students with genuine opportunity for input and feedback.

### STUDENT DROPOUT AND ABSENTEEISM

The high rates of student dropout and absenteeism in Moroccan public universities present a major change management challenge. The nature of the challenge is that dropout wastes financial resources that could otherwise be spent on improvements while absenteeism undermines student-teacher engagement, which is essential for the active learning the Bachelor's reform is intended to promote.

*"Perhaps through this reform, only the name of the system will be changed, but the content will remain the same, because we will work with the same teachers and with the same means, pedagogical methods, and with the same resources".*

– Student, FGD

An additional challenge is that, while numerous government reports discuss dropout and absenteeism in higher education in Morocco, the causes of dropout and absenteeism have not been well researched, according to a 2018 report of the CSEFRS. The DEEP team concurs, finding only a sole study, whose merit is limited by the fact that it analyzes dropout and absenteeism at only a single university and that the method of analysis is descriptive and not inferential. That study was conducted in 2019 in the science faculty of Cadi Ayyad University in Marrakesh, based on a sample of 208 students (Razouki, 2019). The reasons given by students for absenteeism, reported as a percent of those surveyed, were transportation problems (35 percent), comprehension problems (15 percent), conflict with a teacher (15 percent), lack of motivation (15 percent), health problems (11 percent), and timetable (5 percent). The reasons given for dropout were that the training did not correspond with the student's previous training (69 percent), the student found language to be an obstacle (55 percent), the student lacked information about the pedagogical system (48 percent), the training did not meet the students' expectations (31 percent), the student lacked information about academic programs (30 percent), the student lacked information about how to study (22 percent).

Until more research is conducted on absenteeism and dropout in Morocco, it will be necessary to rely on research conducted in other countries when designing interventions to reduce absenteeism and dropout in the public universities. From the literature on absenteeism and dropout, four topics are particularly relevant for the proposed reform in Morocco:

- Firstly, a substantial body of evidence indicates that attendance increases university students' academic performance while absence lowers it (Devadoss and Foltz, 1996; Chen and Lin, 2008; Arulampalam, Naylor, and Smith, 2012).
- Secondly, numerous studies have found that students who attend class regularly are less likely to drop out. These studies have all been conducted at the high school level (Cabus and De Witte, 2014, Ripamonti, 2018). It seems likely that this effect would also occur among university students though no studies were found at that level.
- Thirdly, a number of studies have found that students with a higher degree of academic engagement (defined as interaction with academic staff and self-perceived progress) are less likely to drop out (Terenzini and Pascarelli, 1977; Kehm, Larsen, and Sommersel, 2020).
- Fourthly, there is evidence that compulsory attendance can reduce absenteeism (Di Pietro, 2004; Marburger, 2014; Snyder et al., 2014).

## WEAK INCENTIVES FOR CHANGE

Another challenge to successful change management is the low priority placed on incentives in the Moroccan higher education system. Neither government allocations to universities nor employee salaries are based on performance. The lack of an incentive system in higher education is a major impediment to institutional change and educational quality.

At the institutional level, the Ministry incentivizes change through various mechanisms that preserve institutional autonomy while introducing new forms of steering and accountability. Such mechanisms include formula funds, performance contracts, and competitive funds (World Bank, 2019). **Formula funds** could be used in Morocco to allocate core recurrent funds to the public universities based on indicators of institutional performance, such as the student retention rate, the number of graduates, or the employment rate of graduates. These are targets that apply to all universities. **Performance contracting** could be used to supplement formula funding in cases where the Ministry wishes to incentivize change in particular universities. For example, this mechanism could be used to incentivize

more intense recruit of women in a university where the female enrolment rate is lower than in other universities. Common elements in performance contracts include a set of indicators, indicator targets, incentives, contract duration, measurement and evaluation of outcomes, contract governance arrangements, and provisions for dispute resolution. The table below shows the duration and extent of higher education performance contracting in various European countries.

Exhibit 7: Performance contracting in higher education in Europe

Country	Year of Introduction	Contract Duration (years)	Portion of Education and Research Budget Based on Performance (%)
Austria	2001	3	Close to 100
Denmark	2000	3	60
Finland	1994	4	75-100
Germany	2002	2	25-55
Netherlands	2012	4	27-32
Scotland	2012	3	85

Source: Adapted from Jongbloed et al., 2018.

**Competitive funds** have proven especially useful in promoting transformation of entire higher education institutions or particular units within them. Under this mechanism, the government invites institutions to submit proposals for projects of a specified nature. The proposals are reviewed and ranked by committees of peers according to transparent procedures and criteria. In Argentina, for example, the government issued a call for proposals for universities to undertake strategic planning, which had not been done before, to strengthen existing programs and to launch new interdisciplinary graduate programs (World Bank, 2019). As a result, academic units that previously interacted little with each other were motivated to collaborate, helping to shift the culture of the institution. In Morocco, competitive funds could be used to incentivize the universities to establish change management functions to facilitate implementation of the Bachelor’s reform and to engage in continuous quality improvement.

At the individual level, both psychological and material incentives can be used to bring about change. Psychological incentives include the opportunity to provide input in administrative decision-making, evidence that input is taken seriously and respected, actual influence over the content and process of change, and clear communication regarding the change process. Material incentives include adequate office space, computer equipment, travel and book allowances, adequate classroom space and facilities, salaries, and fringe benefits.

#### FEW LOCAL MODELS OF INSTITUTIONAL CHANGE

A final challenge related to change management is the paucity of models and examples of highly innovative institutional change initiatives in higher education in Morocco. As pointed out in the preceding section on assets related to change management, there are several innovative private universities in the country, but little organizational innovation has occurred in the public universities. Elsewhere in Africa, however, change management techniques have been used successfully to shift organizational culture in higher education and bring about vital changes. The case study below summarizes a change management process that incentivized innovative professors that was used to change the organizational culture of an African university and bring about a structural change that had

previously failed in earlier attempts. Without systematic attention and significant financial resources devoted to change management, the attempted reform at Sokoine University would have failed again. The lesson for Morocco from this case study is that managing the human and cultural dimensions of change is critical to the success of a reform. Institutional change requires a change in mindsets, and mindsets can be changed through sound change management practices, especially empowering innovative individuals and administrative units to adopt the changes early and alter the “institutional mood” so that others also join in the change.

Exhibit 8: Case study: Tanzania

<b>Program:</b> Change management	<b>Implementers:</b> Sokoine University of Agriculture (SUA) and iAGRI	<b>Location:</b> Morogoro, Tanzania
<b>Target Group:</b> University administrators and academic staff		<b>Best Practice:</b> Strategic planning, organizational learning
<b>Targeted outcomes:</b> Administrative restructuring, outward-facing institutional strategies, greater academic quality and relevance		
<b>Background:</b> Rapid growth in university enrolment, an obsolete administrative style and structure, and the use of outdated curricula and pedagogical methods created a crisis of quality and relevance in the university’s academic programs. It was widely agreed within the university that administrative and academic responsibilities needed to be realigned between the university’s central administration and the various faculties. However, after two successive task forces and four years of trying to develop a plan, resistance to the proposed change was strong, and the university community could not reach agreement on the nature and extent of the restructuring.		
<b>Program/Practice Description:</b> Top officials of SUA concluded that the university’s institutional culture and the mindset of individuals would need to change before restructuring could occur. They requested iAGRI, a consortium of six American universities, to assist them. Based on theories of complex adaptive systems, SUA and iAGRI launched a program of change management that sought to create a change-embracing mindset by empowering innovative professors and administrators to engage in “organizational experiments” (pilot projects) in teaching, research, academic support service, and community outreach. A protocol was developed to maximize “organizational learning” about the process of change itself as each experiment proceeded from the problem identification stage, then to a search for potential solutions, followed by pilot-size implementation of the selected solution and refinement of the solution based on feedback and lessons learned, and finally to institutionalization and full-scale implementation of the solution. This process of empowerment of innovative individuals and groups at the grassroots level combined with organizational learning at the level of the institution was carried out in 16 organizational experiments. Thirteen of the experiments resulted in successful solutions that were scaled up and implemented. Ten of the scaled-up solutions met standards developed by the partnership for organizational sustainability and eight of them met the partnership’s standards for financial sustainability. Over a period of 2-3 years, the organizational experiments helped shape the institutional culture of SUA in a positive direction. By the time the sixteenth organizational experiment was underway, the new change-embracing mindset and spirit of cooperation made it possible for the decision-making bodies of the university to reach agreement on a plan for institutional restructuring without controversy or resistance. The organizational learning acquired through the organizational experiments created a sense of institutional self-confidence that also motivated SUA to bolster its strategic planning. Top officials decided to replace the university’s existing strategic plan, which had heretofore been ignored in planning and budgeting because it was a lengthy wish list rather than a realistic plan. They shortened and scaled down the strategic plan so that it could serve as a useful and realistic guide for annual planning and budgeting.		
<b>Resources Needed:</b> Financial resources to support implementation of organizational experiments, human resources in the form of change management expertise		
<b>Challenges to Consider:</b> Change management takes time because mindsets and institutional culture change slowly. A related challenge is that higher education administrators are experienced in formal administrative systems and often fail to understand or appreciate that institutional culture is an informal system with tremendous power to bring about or impede institutional change.		

A second challenge is that mindset and organizational culture change alone is not enough to bring about fundamental institutional change. Adequate financial resources and good management (strategies, structure, and systems) are also needed.

**Potential Solutions:** The speed of institutional change and the transformation of institutional culture that makes it possible can be increased by planting seeds of positive change at the faculty level and not only the administrative level. Many professors, if given the opportunity and resources to contribute to improvement in a part of the institution that affects their capacity to excel as teachers or researchers, are willing to do so if they are given voice, respect, and resources. When people become authors of change in one aspect of the institution, they tend to be supportive of broader institutional change.

Universities compete with other public and private organizations for financial resources from governments, students and their families, and the private sector. The best way for universities to get the needed financial resources is to adjust internally in response to the changing needs and conditions of the society and to provide high quality and relevant training and research. The solution for the funding problem is to make change management a permanent and ongoing strategy of higher education.

**References:**

Kraybill, D.S., J.M. Erbaugh, I.J. Minde, and D.O. Hansen. 2017. Improving the Capacity of Agricultural Higher Education Institutions to Contribute to Food Security: The iAGRI Experience and Lessons Learned. *African Journal of Rural Development*, Vol. 2, No. 1, pp. 1-10.

<https://repository.ruforum.org/system/tdf/1%20Kraybill.pdf?file=1&type=node&id=36612&force=>

Koehn, Peter, David S. Kraybill, and Isaac J. Minde. Forthcoming. "Transnational Partnerships for Tertiary Agricultural Education in Africa", Chapter 16 in Kraybill, David S., John Lynam, and Adipala Ekwamu (eds.), *Transforming African Agricultural Universities*. Wallingford, England: CABI.

## Resource Requirements

A major cause of limited success in the previous higher education reforms was insufficient resources. Successful implementation of the proposed reform requires additional infrastructure, equipment, and human resources. In addition to the resources themselves, management of resources must be improved. The DEEP team reviewed government reports, independent studies, and interviews with faculty and students to assess resource requirements of the proposed reform.

**Infrastructure:** *Classroom space* to accommodate the huge increase in enrollment in Moroccan universities over the past decade is arguably the highest priority for infrastructure investment. The goal of classroom expansion is to reduce the size of classes. Interviews conducted by the DEEP team revealed that in some cases, classrooms designed for 80 students are now being used for 500 or more students, a class size that seriously jeopardizes educational quality. The design of new classrooms should provide disability access (e.g., wheelchair access to classrooms, desks, restrooms, dormitories, and other buildings) and existing building should be retrofitted to provide such access.

Another priority is permanent *offices* for regular professors and temporary offices for temporary professors. In interviews, many professors report they do not have offices, making it difficult for them to meet face-to-face with students. It is important for the quality of teaching and scholarship, as well as for the esprit de corps of professors that they have an office where they can prepare for class, conduct research, and meet with students and colleagues.

Other infrastructure needs include:

- Fiber optic cable linking university campuses to the national Internet backbone
- Campus-wide IT networks (fiber optic or wireless)



- Cafeterias for student meals
- Computer labs for students
- Study spaces for students (in libraries or student centers)

**Equipment:** Investment in various kinds of equipment, especially *computers*, is needed. The interviews revealed that some professors and many students do not have computers. Other equipment that is needed includes:

- Projectors and sound systems for all classrooms
- Central IT equipment (servers, routers, etc.) for university campuses

**Human resources:** The student/teacher ratio in the public universities now far exceeds the international norm. In 2018, the average ratio in higher education was 12 in the United States, 21 in France, 24 in Egypt, 28 in Algeria, and 29 worldwide (Index Mundi, 2021). In contrast, the student-teacher ratio in Moroccan public universities was 57 in 2016 (CSEFRS, 2018).

The student/teacher ratio is an average that obscures maldistribution of the teaching load. One aspect of the maldistribution is that some professors teach large classes, exceeding 500 students in some cases, while other faculty have a very low teaching load. Another aspect is that some professors have very light teaching loads, as low as two hours per week. Redistributing the teaching load would be a way of reducing class size and increasing the interaction between professors and students.

More interaction between instructor and student is essential for adoption of the active learning methods of instruction that are part of the Bachelor's reform. As proposed elsewhere in this document, one solution for increasing instructor-student interaction is to make use of graduate students as teaching assistants.

**Resource management:** While additional resources are needed by universities to implement the proposed reform, the public universities also need to improve their resource management. Funding provided by the government should be tied to institutional outputs and outcomes to motivate universities to undertake the reform. Performance-based funding—either formula funding, performance contracts, or competitive funding as described in the preceding section—should identify clearly specified performance targets and failure to meet the targets should have real consequences.

Within the universities, annual budgets should reflect goals and targets set by the universities themselves and by the Ministry. Financial management policies and systems should be reviewed and modernized where needed to ensure that reform can be implemented efficiently.

Human resource management is ideally carried out by universities because this is the level where staff performance is best known, understood, and can be incentivized. Currently, human resource management, including the setting of salaries, is a national function. This is a serious impediment to the implementation of change in the public universities.

Managing higher education infrastructure and equipment is a challenge given the decentralized structure of universities. It is therefore important that each university develops an *asset management plan* that, among other things, includes obsolescence and replacement policies. Good asset management practice includes asset labeling and an asset registry that is updated regularly. Capital budgeting by the Ministry and the universities should be driven by strategic plans that identify asset acquisition priorities.



Classroom facilities management is an often overlooked, though very important, function in higher education. Good management of classroom facilities requires a staff and budget to ensure classroom equipment (including lighting and IT equipment) is working properly and that seats, ventilation systems, doors and locks are in good condition.

## E-LEARNING IN THE MOROCCAN UNIVERSITY

While some Moroccan universities have begun to integrate e-learning into their curriculum, there are major concerns about equitable access to the tools and technologies required to participate in e-learning. World Bank 2019 data indicate that 74 percent of the Moroccan population uses the Internet. However, this is not consistent across economic classes and locations.<sup>137</sup> Only 45 percent of middle-income and 16 percent of low-income Moroccans use the Internet<sup>138</sup> and as of 2015, only 47 percent of Moroccans in rural households had reliable Internet access in the home.<sup>139,140</sup> Mobile phones have reached all of Moroccan society, including remote regions. However, without widespread broadband access, these phones can primarily only be used for voice and text messaging.<sup>141</sup> This results in low-income students and students in rural areas struggling to participate in digital learning.

There are also concerns about teachers' capacity and willingness to teach via e-learning technology. Anecdotal evidence suggests that some faculty members are resistant to transitioning away from the traditional methods of teaching with which they are most comfortable, while others are hesitant because when lessons are made digital, they are documented, meaning professors could be evaluated in a way that wasn't possible before.

Faculty members who participated in focus groups do see a number of benefits to e-learning, including an increased ability to reach part-time students who cannot come to campus, greater access to international expertise that does not exist locally, and the fact that e-learning lessons can be recorded and then reused or referenced. However, many faculty members feel that at present they are not properly trained to teach through e-learning methods and many students do not have the equipment needed to fully participate in e-learning. One faculty member said, "it is impossible to bet on [e-learning], given that many students do not have the necessary tools, such as computer and Internet, especially those who belong to poor backgrounds and rural areas."<sup>142</sup> In one example, a faculty member stated that out of 1,400 first-year students in his department, only 7 percent were able to open the online platform. The suspension of face-to-face classes due to the COVID-19 pandemic led to a widespread attempt at e-learning. While some universities succeeded in transitioning to an e-learning system, other universities faced major issues due to technical defects and teachers' lack of technological skills.<sup>143,144</sup> Yamina El Kirit El Allama, an international higher education advisor and consultant and former Vice Dean at Mohammed V University, said that distance learning in the spring was not a success, and that "Morocco does still not have the ICT capabilities to use online education even at universities."<sup>145</sup>

A survey of university students and teachers found that during the COVID-19 pandemic, 39 percent of students (n = 50,000) and 23 percent of teachers (n = 3,500) encountered Internet connection problems when trying to participate in e-learning. About a quarter of students also reported difficulties communicating and interacting with teachers over remote platforms, and both teachers and students reported difficulty using and managing virtual platforms.<sup>146</sup> Furthermore, some early data suggests that few university students were accessing the digital platforms, and those that were did not spend much time on them.<sup>147</sup> After experiencing e-learning under COVID-19, students and teachers surveyed suggested a number of ways to improve the process. Students highlighted the need to increase

accessibility to the Internet and computers, increase the interactivity and communication between teachers and students, and select a single, simple e-learning platform for the entire academic community. Teachers recommended providing pedagogical and technical training and support to teachers, increasing access to high-quality equipment (microphone, cameras, software, wi-fi, etc.), and institutionalizing e-learning through a national strategy for e-learning development and a legal framework for evaluations.<sup>148</sup>

The Ministry of Education is working with USAID in a number of ways to develop the capacity for digital learning in teacher training programs. The (USAID-funded) Higher Education Partnership for Morocco is prioritizing e-learning as a part of a blended approach to teaching training. Similarly, the (USAID-funded) Reading for Success National Program for Reading is working to develop an online program for teachers' professional development. A 2019 report building out the government's higher education reform section of the Strategic Vision 2015-2030 calls for training to encourage and support teachers in adopting new learning technology, teaching in a blended learning format, and modifying pedagogical content for digital learning.

Sources for this textbox.<sup>149,150</sup>

Students who participated in focus groups support these findings. One student commented that when universities attempted e-learning during the COVID-19 pandemic, "it was a shock for us to have to deal with computers. There are students who do not know how to operate a computer."<sup>151</sup> Students also felt that e-learning severely limited their ability to interact with faculty and reduced the quality of lessons. They noted that very few faculty members shared video recorded lessons. Instead, students were often sent a document as their lesson and had difficulty getting responses from faculty to their questions. One student summarized much of the student reflection on e-learning by saying, "we did not benefit from e-learning. E-learning is not effective nor is it efficient compared to in-person education."<sup>152</sup>

E-learning was also a part of the recent teacher education program reform. A review of this program found that not all students had access to a library or to wi-fi. They also found that instructors did not have a universal approach to learning technology. A wide range of tools and platforms were used, meaning students had to learn and flip between a number of different technologies. The e-learning system would be improved if learning technology platforms, the software required for students, and the basic skills and tools students need are standardized.<sup>153</sup>

While there are numerous ongoing efforts<sup>154,155</sup> to develop the technological infrastructure for e-learning, build teachers' capacity for e-learning instruction,<sup>156</sup> and improve the ICT skills of students, there is not currently the means in place for e-learning to be effective and accessible to a broad range of students.

Further information on e-learning in the Moroccan University system is included in Annex 3.

## 5. RECOMMENDATIONS

After a thorough review of the literature regarding Moroccan students' performance and challenges as well as existing skill development programs and practices and a series of individual or FGDs with faculty, students, and key informants in Morocco, the DEEP team believes that a majority of the reform goals can be accomplished over multiple years and with appropriate supports in place. Recommendations for accomplishing these goals are described below. These recommendations will be best accomplished over time and will require the infusion of considerable resources to train and incentivize faculty around new

pedagogical practices that enable students to regularly practice soft skills and English language, to reduce class sizes, and to build partnerships with the community to provide increased opportunities for internships and experiential learning or community service settings. Incentives might include lighter teaching loads, resource support for course development, or opportunities for advancement for adopting these approaches. Assessment could be integrated into student assessment of the course.<sup>157</sup>

The recommendations below begin with change management, which is the strategic management of the human and cultural aspects of the *change process*. The remainder of this section provides programmatic recommendations for the Foundation Year, as well as broader recommendations that will contribute to the success of the Bachelor's reform.

## CHANGE MANAGEMENT

The DEEP team recommends that the Ministry and the universities each develop and implement a change management plan. The plan should cover five components: organizing for change management, communication, content planning, training, and implementation. All five change management components should be carried out by the Ministry and by each public university, though specific tasks associated with these components will differ between the two levels of the higher education system.

**Organizing for Change Management.** Higher education systems and universities are relatively decentralized compared to many other types of organizations, making the planning, coordination, and implementation of institutional change a managerial challenge. Therefore, careful attention must be given to the lines of responsibility and communication during the Bachelor's reform. To this end, the DEEP team recommends that the Ministry and the universities each appoint a Change Management Team of 3-5 senior officials. This team should be led by the top official to make clear that the proposed changes are of the highest importance. In the Ministry, this would be the Director of Higher Education, while in the universities it would be the President. In addition to the President, the university teams could be made up of the Vice-President for Academic Affairs, the Head of Student Affairs, and the General Secretary (others may need to be added). The team can delegate tasks but it must assume responsibility for management of the planning and implementation processes. The Ministry team will be responsible for the design of the overall reform plan and for implementing changes within the Ministry, while the university team will be responsible for developing local implementation plans consistent with the Ministry's plan and for implementing local changes.

Given the organizational and cultural complexity of the reform, the leaders of the reform at Ministry, university, and institutional levels will need input from a wide range of individuals who support the change and who know the pulse of their institution at its various levels. For this purpose, the DEEP team recommends that each Change Management Team create an advisory group of "wise people" to give it feedback and advice throughout the change process. Such a group is called a "guiding coalition" by change management expert, Professor John Kotter (2012) of Massachusetts Institute of Technology. For Morocco, the DEEP team recommends that this group be called a Change Advisory Group to clarify that its role is to give advice, not to manage. The Change Management Team in each institution will convene its Change Advisory Group regularly to seek programmatic ideas, ensure stakeholders are consulted and their viewpoints are considered, identify collaboration and partnership opportunities, identify potential threats, and diagnose planning and implementation problems. The Change Advisory Group should be a mix of formal leaders and informal leaders from within the university. The formal leaders might include deans of faculties, directors of graduate schools, and general secretaries of establishments. Informal leaders are individuals who, by the weight of their ideas and communication abilities, are social influencers even though they do not hold formal leadership positions. The Change Advisory Group in

the Ministry should consist of 10-15 senior and junior managers while the teams in the universities should consist of a similar number of deans, directors, and faculty.

As soon as the Change Management Teams have been created in the Ministry and universities, they should meet to map out the roles and responsibilities of the Ministry and the universities. Then, with direction from the Ministry, each university Change Management Team should undertake a needs assessment for its institution focusing on reform goals, past and present enrolment, student academic progress, facilities, staffing, and labor market integration of graduates. Some of this work has already been done by the Ministry and the DEEP team. Based on the needs assessment, projections should be made for future enrolment, space requirements, faculty requirements, capacity building requirements, budgetary requirements, and other variables. Drawing on its own data and analyses and projections, as well as that from the universities, the Ministry should set national goals and targets for the reform and convey these to the universities, which will then set their own goals and targets.

Financial planning for the reform should begin early. The Change Management Teams in the Ministry and the universities should identify the relevant cost categories, rough estimates of cost levels, and potential sources of funding, including both governmental and private sector sources. Potential cost savings from reduced student drop-out should be estimated and potential uses for the savings should be identified.

After the Change Management Teams have developed their implementation plans, they should identify barriers to change and ways to remove them. Some, though not all, barriers can be foreseen and it is important to remove them as soon as possible so that momentum can be achieved in the early phase of the reform. The Change Advisory Groups can provide valuable input in identifying potential hindrances.

#### Change management organizing tasks

- Assess needs
- Define scope of reform and set goals and targets
- Assign and communicate roles and responsibilities
- Identify required financial resources, arrange funding, and identify areas of potential cost savings
- Identify and remove barriers to change
- Make mid-course adjustments in reform plans

**Managing Communication.** An important early action of the Change Management Teams will be to develop and implement a communication plan that identifies key stakeholders; types of information to be conveyed to stakeholders during the early, middle, and later stages of the reform; modes of communication; frequency of communication; and designation of responsibility for communication. Potential stakeholder groups for the Ministry include university leaders, the faculty union, employers and national industry groups, and Ministry staff while stakeholder groups for the universities include students, parents, faculty, non-faculty staff, deans and directors, and alumni. At the beginning, reasons for the reform and the benefits it is intended to provide should be conveyed clearly to all stakeholders. Potential modes of communication include meetings (in-person and virtual), hard copy letters or memos, email, text messages, social media, and websites. Multiple modes should be used to increase the reach of the communication effort. Communication should be frequent throughout the reform period, occurring at least monthly and during some phases and for some stakeholders, more frequently. A Communication Manager should be identified in the Ministry and within each university. This individual, ideally working with a team, will operate under the guidance of top officials and must have access to

them. The Communication Manager will craft messages, develop and maintain feedback channels for leaders of the reform, organize meetings, and ensure results of the reform are communicated to stakeholders.

#### Communications tasks

- Develop communication plan
- Begin implementation of the plan
- Maintain communication and feedback channels throughout the reform

**Managing Content Planning.** The next step is for the Change Management Teams to empower the units and individuals that were assigned responsibility to plan the academic and administrative content of the reform. The recommendations of the DEEP team regarding the Foundation Year can serve as input to the content planning but these recommendations may need to be adjusted and adapted. In some cases, individuals may need to be released from other duties, allocated staff assistance, or provided funds to carry out their reform-related planning activities. Establishments and departments will carry out much of the planning for academic aspects of the reform while universities will shoulder much of the administrative planning. The Ministry and the universities have different but related roles with regard to academic programs and therefore the two levels will need to coordinate closely.

Establishment and department plans will be reviewed by top university officials, who will provide feedback and request adjustments to ensure consistency within university goals and targets. The revised plans will then be submitted to the Ministry, which will review them for consistency with national goals and targets. Where necessary, the plans will be returned to the universities for further revision before final approval by the Ministry.

#### Content planning tasks

- Empower units and persons responsible for planning administrative and academic aspects of the reform
- Develop academic and administrative plans
- Evaluate and revise plans
- Approve plans

**Managing Training.** Enhanced human capacity in the form of training will be essential for mastery of the knowledge and skills required to implement the reform. Administrators, administrative staff, and deans and directors will need to be trained on new strategies, structures, and systems. Faculty and teaching assistants will require training on new curricula, pedagogical methods, and teaching technologies. Students will need to be trained on new skills and learning technologies. Training can be provided through workshops, online videos, and manuals. Funds and staff will be needed to facilitate the training.

### Training tasks

- Train administrators and non-faculty staff on new strategies, structures, and systems
- Train faculty and teaching assistants on new pedagogies and technologies
- Train students on new skills and technologies

**Managing Implementation.** The Change Management Teams should identify and support “early adopters” who, according to many studies conducted over the past 50 years, play a key role in the spread of innovations (Rogers, 2003). Early adopters are academic units and professors who are willing to implement the reform measures during a pilot year. Material and financial support for the early adoption of the Bachelor’s reform, active-learning pedagogy, and e-learning methods should be provided to academic units and faculty willing to be early adopters. These units and individuals should be acknowledged and rewarded publicly for their innovations and others should be encouraged to join them.

Early adopters are important for at least three reasons. First, by demonstrating the feasibility of particular targeted activities, they bring credibility to the reform plan. Second, they are typically energetic and creative individuals who innovate in ways that exceed the vision of the reform leaders, thereby raising the quality standards of the reform. Third, their commitment to change and their success in implementation begin to shift the “mood of the institution” and pave the way for larger change. An illustration of the catalytic role of early adopters in reform at Sokoine University in Tanzania is documented in Exhibit 8.

During the pilot year and the first year of full implementation of the Bachelor’s reform, “early-win” activities that can be completed quickly should be identified and supported and results should be communicated widely to build momentum. Examples of potential early win activities are introduction of language assessments, expanded use of graduate teaching assistants, and introduction of new student orientation. Small but visible successes create a sense of growing optimism about the benefits of transformation. A growing number of persons begin to embrace and help implement change, preparing the stage for bigger changes. Throughout the implementation phase, it is essential that communication and trust building continue and remain a top priority of the change leaders and the Reform Guidance Teams.

Through early wins and the activities of early adopters, who will represent only a subset of all faculty, support will grow if communication is clear, trust is built, required resources are made available, and results are evident. If these conditions prevail, most of the initial resistance can be expected to fade. Some resistance, however, will inevitably remain. Leaders of the reform should view this as normal and should reach out to resisters and seek to address their concerns. In general, resistance should be met with incentives for adoption and participation, not sanctions, because such measures tend to encourage deeper resistance. Passive resistance is generally not fatal to reform and active resistance is often based on genuine and important concerns that should be addressed by the reform leaders. Coping with resistance should be part of the communication plan developed at the beginning of the reform, as described above in the section on Managing Communication.

After early adopters have demonstrated that the proposed changes are feasible and early wins have been completed, implementation can be scaled up throughout the higher education system. Reform leaders should seek to incentivize adoption of the reform measures through communication of the benefits, provision of required resources, and public acknowledgement of innovative individuals and the units that achieve set targets. Success stories should be written and published within the universities and

in the national media highlighting the effects of the reforms on students, faculty, and graduates, and employers. Lagging activities should be identified and, drawing on the insights of the Reform Guidance Team, the reform leaders should diagnose and seek to remedy the causes.

#### Implementation tasks

- Identify and support early adopting units and individuals during pilot phase
- Support early-win activities
- Reach out to resisters
- Scale up implementation
- Diagnose and correct problems of lagging activities

**Managing Results and Organizational Learning.** Monitoring progress relative to targets is a vital change management function to be carried out by the Ministry and each university. Each institution should have a unit dedicated to gathering, analyzing, and reporting progress. The Change Management Teams for the Ministry and each university should select progress indicators (e.g., Bachelor’s system—percent of programs converted, or percent of students enrolled; credit system—target date for implementation, or percent of courses fully integrated; percent of students attaining a specific level of fluency in their language of instruction; attendance rates; dropout rates, percent of students graduating on schedule, etc.) for their institution. The number of indicators should be relatively small (10-15) to keep attention on top priorities, and attention should be devoted to measuring these accurately and in a timely manner. Credibility of monitoring is undermined when there is a large number of indicators for which data are not gathered or for which the data are inaccurate or out-of-date.

Organizational learning is a feedback process by which organizations analyze their own experience and use the wisdom gained from analysis and reflection to improve their strategies, structures, systems, and programs. The Change Management Team in the Ministry and each university should regard organizational learning as one of its key functions. They can draw on the insights of their Change Advisory Group to assist in reflecting on and learning from the results, including successes, lagging areas of implementation, and failures. The aim of organizational learning is for each institution to develop its internal knowledge bank about “what works and what doesn’t work” and make mid-course adjustments, as needed, during the reform. Many of the lessons learned will have relevance beyond the reform period and can help progressively move the institution to adopt and refine “best practices” that have been vetted locally. The Ministry should share its organizational learning with the universities and should bring the universities together periodically to share their organizational learning with the entire system.

#### Results and Organizational Learning Tasks

- Before implementation begins, designate a unit to gather, analyze, and report progress
- Select progress indicators
- Gather data on indicators regularly (e.g., each semester)
- Review progress periodically and to identify “lessons learned”
- Report results in a timely manner to all stakeholders



# FOUNDATION YEAR

The foundation year is designed to equip students with an orientation to university life and systems as well as the skills, knowledge, and confidence needed to succeed in later years and is intended to be common across all disciplines. The sections below describe the recommended foundation year elements, the supports and resources necessary to accomplish the recommendations, and assessment recommendations.

## NEW STUDENT ORIENTATION PROGRAM

Both students and faculty participants in the FGDs indicated a significant need for a new-student orientation designed to ease the transition from high school to university and to provide students with an overview of the university. To this end, the DEEP team recommends the development of a mandatory, 2-3-day orientation to the university that takes place prior to the start of classes. The new student orientation should include a registration session (including obtaining course schedules and learning who their foundation year advisor is); a welcome event with messages from key university administrators (e.g., President, Deans); presentations that provide a general overview of each school at the university and opportunities for study; and presentations by key centers, services, or offices around campus (e.g., language center, career center, library, any centers on campus that provide student supports such as counseling or health center). In addition to a summary of the foundation year supports and requirements, students will receive an overview of the expectations around attendance, preparation for class, the need to plan for and manage assignments, and course requirements for common majors. Students would also have an opportunity to meet with their foundation year advisor during a meet-and-greet session at the new-student orientation. Students should also be provided with an opportunity to meet with information technology (IT) staff to set up email accounts or address other IT issues. During this orientation, students should also be provided with an overview of campus life and student activities, which could come in the form of a student club fair, where students can speak with representatives from major clubs on campus to learn more about what they can do to get involved in activities outside of the classroom. When possible, a tour of the university or campus at which students are learning should be provided by third- or fourth-year students or peer mentors (when peer mentoring is implemented). These tours allow students to get to know the campus and also provide an opportunity for them to have small question-and-answer sessions with more advanced peers.

The DEEP team also recommends the development of two majors fairs. The first should provide a high-level overview of the available majors at the university and would be offered during the new student orientation. The second, offered at the end of the spring semester before students go on holiday and before they are required to declare a major, would provide first-year students the opportunity to meet in small groups with faculty and student representatives from each of the majors on campus to learn more about opportunities within each major.

Finally, the team recommends that these academic-focused activities be coupled with a series of social events, including small-group ice-breakers led by third- or fourth-year students, cultural events (e.g., music, drama, art) put on by students at the university, and meet-and-greets for faculty and students as well as for new students and peer mentors (who will remain in regular contact with new students throughout the year as described below). These social events will provide students with a sense of community, and provide them with an opportunity to meet other students and faculty.

The team recognizes that not all elements of the foundation year that are outlined here could be implemented right away. Nevertheless, it would be helpful to incoming students in pilot foundation programs to begin to integrate the most crucial components of this proposal to help support a smoother transition to university life). Because, as noted above, we heard from both faculty and students that students' limited understanding of how the university works and what the expectations are of university students (and specifically how those differ from the expectations in high school) we recommend that universities focus on the following four tasks:

1. Developing an overview of each school and available majors at the university.
2. Developing a summary of the foundation year requirements, including an overview of the supports and resources available to students on campus.
3. Prioritizing the identification of faculty advisors (and eventually peer mentors) for all incoming students.
4. Creating a majors fair for the end of the spring semester.

At the University of Dayton, in Ohio, USA, all students take a seminar during their first semester to ease the transition from high school to the university experience, teach them how to be successful students, learn about their degree program (or, help undecided students select an appropriate degree program), and instill the university's core values including community, critical reflection, lifelong learning, and service. This course is 0-1 credits, depending on the school or college it is housed under, and generally meets only 1-2 hours per week.

## FOUNDATION YEAR CURRICULUM

The DEEP team recommends that the foundation year be an interdisciplinary year, relevant to all students regardless of major or area of specialization. To accomplish this, the team proposes a set of core courses across disciplines designed to broaden students' perspectives, determine their interests, develop their study skills and soft skills, and offer greater flexibility in their academic curriculum during the first year. In addition to these core courses, the team recommends that students be provided with a small set of courses from which they will choose one elective each semester to provide students with the opportunity to explore content areas of interest to them. These courses should be limited to electives that would typically be taken by first-year students. Further, the number of course options should be kept small enough so as not to overwhelm students with choices in their first year but broad enough to represent a range of disciplines across campus. All courses in the foundation year should include both content and instructional practices that support the development of problem-solving skills, critical thinking skills, and independent and collaborative learning skills, and communication skills. Courses should also offer opportunities to develop and practice key study skills (e.g., time-management, note-taking, active listening). This can be accomplished through the use of diverse pedagogical practices including those that allow students to engage in critical thinking and problem solving either alone or with peers, that encourage students to practice skills across disciplines and communicate their learnings, that require students to manage their time (within a single class and/or across the semester), etc.

The following structure is proposed for the foundation year:

Exhibit 9: Proposed foundation year courses

SEMESTER 1	CREDITS	SEMESTER 2	CREDITS
Study Skills	3	Modern Literacies – Information, Technology, Statistics	3
Soft Skills	6	Public Speaking	3
Gen Ed I: Scientific Encounters – Natural Sciences and Mathematics	6	Gen Ed II: Cultural Explorations – Humanities and Social Sciences	6
Elective	3	Elective	3
Language	6	Language	6
Language	6	Language	6
<b>Total</b>	<b>30</b>	<b>Total</b>	<b>27</b>

Proper staffing of these courses will be essential. The instructors assigned to teach these courses should be trained and experienced in critical thinking, multidisciplinary dialogue, and active-learning pedagogy. Ideally, the general education courses would be taught by a team of professors representing the four broad areas of study: mathematics, natural sciences, humanities, and social sciences. Similarly, the study and soft skills courses should be taught by faculty who are well-versed in these topics and who are skilled in pedagogical practices that support soft skill development including direct instruction, cooperative learning, project-based learning, and flipped classrooms. Because of the large enrollment in the Moroccan public universities, the instructors of these courses will need to be assisted by graduate students who will provide the small groups and intensive tutorials that are essential for active learning. Training instructors in the use of graduate students and training of the graduate students in tutorial methods will be important.

A more detailed description of each area of the foundation year is provided below. Additionally, Exhibit 10 below provides a summary of other foundation year programs at public and private Universities in the MENA region.

Exhibit 10: Examples of MENA region foundation year programs

UNIVERSITY	COUNTRY	PUBLIC OR PRIVATE	DESCRIPTION OF FOUNDATION YEAR PROGRAM
Al Akhawayn University	Morocco	Independent	The First-Year Experience program includes weekly seminars for first and second semester students that focus on campus and academic policies, personal development, career planning, university life, campus resource, and health and wellness. There are 12 seminars per semester. Resident assistants (in residence halls) support students in their daily lives. The program collaborates with Athletics and other offices on campus to offer joint on- or off-campus events for first year students. Student Admins have leadership roles in this program.

UNIVERSITY	COUNTRY	PUBLIC OR PRIVATE	DESCRIPTION OF FOUNDATION YEAR PROGRAM
American University in Cairo	Egypt	Private	The First-Year Experience program is a thematic-based experiential learning program that includes seminars, interactive sessions, and an evening Convocation. The goal of the program is to familiarize students with knowledge about the university experience, equip them with the skills needed for success, and promote the values of respect and appreciation for higher education. Courses in this program are facilitated by faculty members who are assisted by student leaders. Student leaders also organize social events for the first-year students.
American University of Beirut	Lebanon	Private	The Freshman Program is a year-long program comprised of 30 credits across multiple disciplines. There are Freshman Academic Advisors, who help students prepare their schedules, select their majors, and consider their career. There is also a peer mentorship program, in which student mentors introduce freshmen to campus life, encourage them to become involved in clubs and societies, and host events throughout the year.
American University of Kuwait	Kuwait	Private	The First-Year Experience program is designed to help students transition to university and introduce them to the value of a liberal arts education. First-year students are required to take two courses: Essentials of Learning and University, Community, & Citizenship. Students are also involved in extra-curricular activities on campus. The program aims to develop academic, personal and social skills through didactic and experiential learning.
American University of Sharjah	United Arab Emirates	Private	The First Year Experience program is designed to help first-year students grow in areas that are typically the greatest challenge for them. Students can earn a certificate (and meet one of the requirements for the first-year honor society) by attending a workshop or completing an interactive online project in each of four categories: AUS essentials, time management, study skills, and self-care. The program also includes a mid-semester check-in where first-year students connect with faculty, staff, and other students to reflect on their university experience thus far.
Carnegie Mellon University in Qatar	Qatar	Private	The Freshman Edge Summer Program is a three-week orientation experience. During these three weeks, students create a first-year project and learn how to work in teams across disciplines. They also learn time management and other study skills; get to know university resources; meet professors, staff, and students; build relationships with peer mentors.

UNIVERSITY	COUNTRY	PUBLIC OR PRIVATE	DESCRIPTION OF FOUNDATION YEAR PROGRAM
King Fahd University of Petroleum and Minerals	Saudi Arabia	Public	The Freshman Unit is a building on campus where first year students can come to receive academic advising; build skills in time management, self-motivation, and exam preparation; obtain peer mentors; and get connected to other centers on campus. The goal of the Freshman Unit is to support student success and retention.
Prince Mohammad Bin Fahd University	Saudi Arabia	Private	The Preparatory Program is designed for students who need additional preparation in the English language, mathematics, and learning skills in order to be successful in higher education. The program is required for some students, based on their placement test scores. The courses are intended to help students transition from high school to college. Students do not receive academic credit for the Preparatory Program courses.
Qatar University	Qatar	Public	The First-Year Seminar course is designed to foster knowledge and skills needed for personal growth and academic success, while transitioning from high school to university. The course focuses on three components: know yourself, know your campus, and know your society and the world.
Umm Al-Qura University	Saudi Arabic	Public	The Common First Year Deanship aims to provide students with the skills that will help them to succeed in their academic studies and their careers. This first-year program helps to determine students' ability, so that they enter the college most suitable for them. It also utilizes e-learning, which helps to introduce students to digital learning tools. This first-year includes a Learning Skills course that aims to develop students' technical writing, scientific research, study, interpersonal, leadership, critical thinking, and creative thinking skills.
United Arab Emirates University	United Arab Emirates	Public	The First-Year Experience aims to assist new students in the transition to university and prepare them to be responsible citizens with productive careers. The program supports the design and development of learning experiences that engage students and enhance faculty-student interaction. It also provides continuous program assessment to identify and respond to student needs and connect them with appropriate academic support services.

Elon University in the United States offers an excellent example of a foundation year and core curriculum program similar to that envisioned by the Ministry.

Exhibit 11: Case Study: Elon University

<p><b>Program:</b> Core Curriculum</p>	<p><b>Implementers:</b> Elon University</p>	<p><b>Location/s:</b> U.S.-based but study abroad opportunities take place around the world</p>
<p><b>Target Groups:</b> Undergraduate students</p>	<p><b>Best Practice/s:</b> Reinforcing knowledge and practicing skills learned in first year foundation and other courses.</p>	
<p><b>Targeted Soft or Study Skill/s:</b> Active learning, critical thinking, communication, global perspective, research skills, problem solving</p>		
<p><b>Program/Practice Description:</b> The Elon University Core Curriculum is a nationally recognized program designed to help students develop the knowledge and skills necessary for university and lifelong success. Common across each element of the curriculum is a subset of learning goals, including the development of curiosity, research skills, a broad knowledge base, a global perspective, communication, critical thinking skills, and problem solving. During their first year, all students are required to take three <i>foundation courses</i>: one focused on personal and social responsibility domestically and abroad, one on writing, and one on statistical reasoning. Each of these foundation courses is integrated throughout the remainder of the core curriculum.</p> <p>Additionally, students are required to complete two units of the <i>Experiential Learning Requirement (ELR)</i> during their university program. The ELR is designed to help prepare students to carry out meaningful work and service and provides students with a variety of opportunities to integrate the content knowledge they have gained with experience. The program draws on key principles of active learning by encouraging students to prepare for their experience, take action, and reflect on that action as they become global citizens. Experiential learning opportunities can take any of the following forms: internship, global engagement or study abroad, mentored undergraduate research, service-learning, or a mentored leadership position.</p> <p>Students must complete a <i>language requirement</i>, which is designed to help students develop enough proficiency to interact with individuals who speak that language. In addition, students learn about and engage with various cultures through their coursework.</p> <p>Finally, in addition to courses in the arts and sciences as well as electives, students are required to take one <i>capstone seminar</i> outside of their major during their third or fourth year in the program. Capstone seminars are integrative and writing-intensive and culminate in a capstone project.</p>		
<p><b>Resources &amp; Capacity Needed:</b> Faculty with the knowledge and skills to explicitly teach the core foundation year courses using active learning pedagogy. Faculty interested and willing to teach capstone seminars. Faculty or graduate students to mentor students through the experiential learning and capstone projects. Faculty to teach language courses and/or to teach content courses in English or another language.</p>		
<p><b>Challenges to Consider:</b> Ensuring there is a sufficient number of faculty to cover all of the elements of the core curriculum; training of faculty to integrate active learning into these courses and to integrate content across courses and disciplines; small class sizes are central to the program; cornerstone seminars should require students to integrate the skills and knowledge developed in the early years of the program, which requires some communication and sharing of resources, content, and practice across disciplines. These seminars should challenge students to consider the broader themes of the foundation year and core curriculum.</p>		

**Potential Solutions:** Identify existing faculty or hire a small number of new faculty whose job it is to teach the foundation year courses; develop a faculty training program to teach faculty active learning pedagogical approaches that support targeted soft skills; begin to use graduate teaching assistants to facilitate small group activities and discussions; *medium term* – implement experiential learning opportunities and cornerstone seminar requirements.

**Assessment:** Essays, speeches, research projects, presentations, debates or group discussions; written tests are an option but only when they require students to provide counterarguments

**References:**

<https://www.elon.edu/u/academics/core-curriculum/>

## COMPARISON WITH FOUNDATION YEAR PROPOSED BY THE MINISTRY

The program structure proposed above differs from the “pedagogical architecture” proposed by the Ministry for the foundation year. The DEEP team believes that students need more opportunities for the mastery of soft and study skills and a wider range of information to make an informed choice of major. Compared to the Ministry plan, the DEEP plan would provide students with more exposure to soft, study, research, and modern literacy skills and to general education courses in which they would practice the skills. The table below reveals the primary differences between the two proposals.

Exhibit 12: Comparison of MOE and DEEP plans for foundation year (credits)

SEMESTER I	MOE PLAN	DEEP PLAN
Soft/Study Skills	6	9
General Education	6	12
Modern Literacies	0	3
Public Speaking	0	3
Language	24	24
Disciplinary Courses/Electives	24	6
Total Credits	60	57

One of the causes of dropout most often mentioned by students and faculty has to do with the choice of major. Many students make an ill-informed choice about their major and then face obstacles in switching to a different major. Poor choices are made because of lack of information about the options,



lack of guidance in making the decision, and lack of flexibility (bridges) in switching to a different major. The DEEP proposal addresses three gaps related to students' choice of major: (1) students need information about the various fields of study, (2) they need to fulfill certain prerequisites for particular fields of study, and (3) they need guidance in making decisions about fields of study. Gap 1 is addressed by required general education courses in the foundation year by providing students with a broad understanding of the goals, types of thinking and analysis, and methods of various fields of study. Gap 2 is addressed by required electives, which give students an opportunity to explore another discipline in depth while at the same time fulfilling prerequisites for that major. Gap 3 will be addressed by a "majors fair," an event held near the end of the foundation year, to guide students in the choice of major. The fair will be a one-day exposition in which representatives from the various academic programs will set up exhibits, talk with students, and answer questions.

## STUDY SKILLS AND SOFT SKILLS

To facilitate the development of essential **study skills** (see text box for the list of skills prioritized by faculty, students, and the Ministry), the DEEP team recommends creating a required three-credit course, offered in the first semester, that helps students develop critical study skills through a variety of

### Prioritized Soft Skills

- Critical thinking
- Cooperation
- Communication
- Interpersonal skills
- Time management
- Self-motivation
- Self-confidence
- Active learning

interdisciplinary topics presented in the General Education courses (described below) and other elective courses. Students would learn how to develop both short-term (e.g., completing readings for a course or achievements for the foundation year) and long-term (e.g., university or work force and career) goals that will guide them through their university years and consider how they might achieve those goals (e.g., appropriate course selection to support career goals). Importantly, to help students develop effective note-taking strategies and active listening skills, as well as enhance their learning-related skills (e.g., reading skills like skimming and scanning or memorization), students would be asked to evaluate a text or solve a problem from different disciplines across the semester. To facilitate cross-course discussion and content, readings and problems would be drawn from the "big issues" addressed in

the general education courses. Course content should be delivered via different media (e.g., in-person lectures, pre-recorded lectures delivered online, videos, etc.) to provide students opportunities to apply these skills across a variety of instructional modes. Additional topics covered in this course would include time management, organizational skills, and test taking skills.

Second, to facilitate the development of essential **soft skills**, the DEEP team recommends the development of a required six-credit course in which students receive direct instruction on what a set of targeted soft skills (e.g., critical thinking, problem-solving, communication, self-awareness, self-confidence, teamwork, autonomy) are, why they are important for university and workforce success, what role they play in everyday life, both inside and outside the classroom. Students would be required to engage in structured activities that promote soft skill development through their coursework (e.g., clearly defining problems, identifying fact vs. opinion, developing grand solutions to "big issues," leading discussions, presenting arguments, working in groups, etc.). The topics offered could include those presented in the soft skills videos already developed by the Ministry as well as additional core soft skills identified by faculty, students and the Ministry as important. Regardless of the topic covered, examples and activities should be directly relevant to students' experiences to facilitate understanding and

engagement. To accomplish this, faculty might begin the course with guided activities that help students identify what is important to them and what they want to do with their lives. This knowledge or self-awareness can then be used to structure the remaining activities and assignments in the course, a model used throughout the Taqaddam Program (see Exhibit 13 below for a case study of the Taqaddam program). The course would terminate with a team-based application of relevant soft skills to one of a small number of disciplinary problems, ideally linked with those presented in the General Education courses.

Together, these two core courses are intended to provide the study skills and soft skills foundation for years two through four, where these skills are actively integrated and employed in all courses.

Exhibit 13: Case Study: Taqaddam

<p><b>Program:</b> Online and offline life skills/soft skills program implemented across the MENA region.</p>	<p><b>Implementers:</b> British Council with support from HSBC with Moroccan TVET, National Institute for the Automotive Industry (IFMIA) and university partners.</p>	<p><b>Location/s:</b> Implemented in 10 countries: Bahrain, Egypt, Qatar, Kuwait, Oman, UAE, Morocco, Jordan, Lebanon and the UK.</p> <p>Morocco sites (currently in their third year) include universities in Kenitra, Beni Mellal, and Oujda; and IFMIA in Casablanca and 3 other TVET sites.</p>
<p><b>Target Groups:</b> TVET and university students.</p>	<p><b>Best Practice/s:</b> Takes a “whole-person” approach recognizing need to develop “young person’s skills for life, work and society.” Blended online and face-to-face program, also able to be used entirely virtually or in-person as well. Combines formal education and nonformal education. Professors receive training in fostering soft skills through interactive pedagogy, a professional development experience that has positive effects on their academic teaching. Students receive constructive feedback on their soft skills competencies as demonstrated through their self-directed projects.</p>	
<p><b>Targeted Soft or Study Skill/s:</b> Creativity, critical thinking, collaboration, and communication (4Cs). While its purpose it not to teach English, Taqaddam is delivered in English, so English language skills are enhanced.</p>		
<p><b>Program/Practice Description:</b> Taqaddam (which means “moving forward” in Arabic) helps to develop character and soft skills in young people that they need to flourish in life and work. The program which is entirely in English has four main components:</p> <ol style="list-style-type: none"> <li>1) <b>Student workshops</b> – bringing together groups of up to 80 students from across the country, led by facilitators from the UK and the MENA region;</li> <li>2) <b>Life skills classes</b> – delivered in schools by teachers who are trained and supported by the Taqaddam team (1-2 hours one per week; now by Zoom or Teams);</li> <li>3) <b>Personal Missions</b> – self-directed missions in the Taqaddam Handbook and App prompting action, reflection and connection (30 missions available; approximately 4 weeks);</li> <li>4) <b>Team projects</b> – students designing and piloting social action ideas and presenting them at an annual national showcase event, ‘Make It Happen’.</li> </ol> <p>Taqaddam support includes hardcopy teacher and student resources, a digital series of events, webinars and activities, and the Taqaddam Life Skills app. The delivery model is designed to be flexible so it can be adapted to different implementing partners, using face-to-face, all virtual, or blended approaches. Materials are highly interactive and engaging. Participating teachers were volunteers with high level of interest and English proficiency. (The pilot drew from each faculty.). Students also participated voluntarily and had at least some</p>		

English proficiency. Incentives provided to both teachers and students were in the form of recognition, that is, certificates of completion and awards for excellence. The program lasts a total of 12 weeks.

**Outcomes to date:** Taqaddam has so far reached 11,211 young people in the 10 countries noted above over the last 4 years. (This includes 1,000 students in Morocco, of which 400 were university students.) A 2019 evaluation (cited below) using a youth-led, “outcomes harvesting” methodology found Taqaddam “had a positive impact on young people’s self-awareness, lifting them out of periods of self-doubt and isolation and equipping them with healthier coping mechanisms to persevere during challenging times.” It also “built student’s critical thinking skills, encouraging them to consider problems outside of their own contexts and how they can contribute as global citizens. Several young people demonstrated a heightened sense of social responsibility through developing creative solutions to environmental and social issues.”

“Taqaddam navigated complex gender dynamics and in some contexts brought boys and girls together in a learning environment for the first time. As male and female students immersed themselves in competitive activities, they noticed an improvement in the dynamic and effectiveness of group work and began to let go of harmful stereotypes.”

There was evidence that “Taqaddam also influenced policy and practice, teachers benefiting from exposure to innovative pedagogies, professional advancement opportunities and enhanced relationships with students. Taqaddam curricula has been embedded into formal systems by the Ministries of Education in Qatar and Kuwait.”

**Resources & Capacity Needed:** Professors willing to undergo the initial training, teaching and mentoring (20:1/professor-student ratio); funding to carry out training of faculty; students willing to undergo the program; interpretation support for those with limited English proficiency.

**Challenges to Consider:** Professors would like financial remuneration (not receiving it now); students would like academic credit (currently considered extra-curricular); both students and professors with limited English proficiency are excluded, or require additional support.

**Potential Solutions:** *Short term* –Develop at least rudimentary remuneration or compensation for professors even if it is non-financial; Explore providing students with recognition by the university for their Taqaddam certificates of completion; Support student ambassadorship of Taqaddam to increase participation; *medium term* – Formalize process of recognizing and building upon the student “team projects” to increase potential of community service partnerships between the community and university; *long term* – Explore private sector support for financial sustainability, scaling, and integration into university career guidance.

**Assessment:** Assessment is incorporated into program with self-evaluation by students of their soft skills and assessment by teachers as feedback to students after each workshop.

#### References:

Independent evaluation by ECORYS (2019) <https://www.ecorys.com/united-kingdom/our-work/evaluation-taqaddam-programme>

Taqaddam website: <https://taqaddam.britishcouncil.org/the-taqaddam-project/>

The Taqaddam app is available on Apple AppStore or Google Play.

Video of Moroccan students and professors describing their experiences: <https://youtu.be/jRtODMNutww>

**Short-term recommendations.** Given the timeframe for implementing the foundation year, the DEEP team recommends that universities hire a dedicated faculty member (or several members, depending on the university size and need) who specialize(s) in soft skills and study skills to develop and teach these courses. Universities are encouraged to look within their own faculty to determine whether they currently have someone able and willing to teach these courses; if not, the DEEP team suggests universities hire someone from outside the university community to teach the courses. For example, it is possible that faculty from the Career Centers or Taqaddam Program would have the skills and knowledge to teach these courses. At the same time, because a majority of faculty have indicated a lack of knowledge around soft skills, universities will need to focus on training existing faculty on what these skills are and how they can be implemented in the classroom. To begin, a series of required online training modules can be developed around defining key soft skills and various pedagogical practices that facilitate soft skill development. The courses could be rolled out over the academic year so that there is ample time to develop them. Current faculty would be required to complete these modules by the end of the spring semester of the first year the program is implemented; faculty who join the university in subsequent years would also be required to complete these modules.

Exhibit 14 below provides a more detailed description of the Career Centers Program and offers insight into how it could be adapted to higher education settings.

Exhibit 14: Case Study: Career Centers

<p><b>Program:</b> Virtual and physical career centers in public universities (and TVETs).</p>	<p><b>Implementers:</b> FHI360 + Min of National Education + others (IREX, Education for Employment, Golden Resources)</p>	<p><b>Location/s:</b> Six pilots (3 TVET; 3 public universities) in Casablanca, Marrakesh, and Tangier.  (University Abdelmalek Essaadi; University Cadi Ayyad; University Hassan II)</p>
<p><b>Target Groups:</b> For universities: pilot was master’s students, but certainly can be for both undergrad &amp; grad students.</p>	<p><b>Best Practice/s:</b> Youth leadership in outreach and design; private sector/university partnership; both online and in-person access; interactive work readiness curriculum; ToT for institution faculty/staff; alignment with international standards (NACE).</p>	
<p><b>Targeted Soft or Study Skill/s:</b> Workforce readiness skills (soft skills + job search skills). Soft skills = Communication, teamwork, self-regulation, self-organization/self-efficacy/time management, personal integrity, problem-solving, and negotiation.</p>		
<p><b>Program/Practice Description:</b> Career Centers established in physical space at six institutions and an online platform that offer students diagnostic tools and counseling to help them discover their potential, market information on viable career pathways, work readiness training (soft skills + job search skills) and opportunities to connect with the private sector. (These four core areas are: Know Yourself; Explore; Get Ready; and Get Started.) The workforce readiness curriculum (<i>Najahi: Pret pour l’emploi</i>) consists of 24 in-person modules, 16 e-learning modules and blended approaches. Ministry of Education and FHI360-led pilot (“Career Centers” activity, 2015-2020) had impressive results that <i>far out-performed</i> targets: 242,521 youth benefited from career services over the lifetime of the program, ~1,300 trainers from institutions participated in ToT; and 309 informal partnerships with the private sector were established. 95% of employers expressed satisfaction with youth recruited from career centers. 500 Youth Ambassadors were mobilized to promote career center services among their peers. Career centers actively engaged with youth through social media (with over 65,000 followers on Facebook). As private sector partnerships mushroomed, an online Customer Relationship Management Tool was introduced. To facilitate scale up and expansion of career centers across TVET and HE</p>		

systems, central committees (in Ministry of Higher Education, OFPTT, and Min of Tourism) were created and provided professional development to support the career center network. A comprehensive Career Center Toolkit was produced, as well as an Interactive Toolkit Training Tool (I3T) for initial training of new career center staff. A “gold standard” for Career Center services was established with an online matrix produced to facilitate self-evaluation by Career Center Directors and evaluation by the central management committees. The universities had already established satellite branches for greater outreach by 2019.

**Resources & Capacity Needed:** Trained staff to manage the career center offerings; willingness and capacity to create win-win partnerships between the university and the private sector; attractive physical space; IT software and professional development for management of private sector partnerships and student needs; follow-up, support and coordination across universities by central management committees.

**Challenges to Consider:** Universities must budget for career center counselors and directors; budget for IT upgrades; mindset shift needed to actively engage youth as full partners in career center success; mindset shift needed to value university partnership with private sector for student experiential learning of soft skills and ultimate job placement.

**Potential Solutions:** *Short term*—Fully utilize and build on the legacy tools, resources, networks, and lessons learned from the USAID Career Center activity, including the “Gold Standard Matrix,” a self-assessment tool that identifies 10 key dimensions of the Center and aligns with international standards; Mobilize youth from the start to promote, design and sustain the career center; Create a communications strategy to align partners and mobilize interest; Conduct a Rapid Industry Assessment in new locations to establish linkages to the private sector and validate soft skills training needs of employers; Use “Whole System-in-the-Room” workshopping to bring diverse partners to align on common cause; use private HR firms to get student training jumpstarted as university staff are themselves being trained; *medium term* – Invest in at least one Business Developer per region; Sustain and continue to develop IT tools to expand services to more youth; continue to build out the soft skills and job search training offering in response to changing local and international conditions. *long term* – Sustain a network of career centers across Morocco; link the career centers to Morocco’s emerging Labor Market Information Management System.

**Assessment:** Employer satisfaction survey; (student satisfaction survey?) student self-assessment as part of *Najahi* curriculum; career center staff self- and organizational assessment.

**References:** The Virtual Career Center: [www.careercenter.ma](http://www.careercenter.ma) to make Career Center services available online to any young person in any region of Morocco with an internet connection.

Turn-key tools and models for launching new career centers is: [www.kitcareercenter.ma](http://www.kitcareercenter.ma)

Extremely useful resource: USAID/Morocco *Career Centers Final Report* (Feb. 2020), prepared by FHI360.

**Long-term recommendations.** In the long term, the foundation year courses should serve as a training program for current faculty at the university who were interested in implementing pedagogical practices that facilitate soft skill development. These faculty could observe soft skills instructors’ teaching practices, review the syllabus, and develop a discussion group with other participating faculty around strengths and challenges of different approaches for their content area. Participating faculty should also be encouraged to observe one another in the classroom. These practices would allow each faculty member to identify and develop the strategies that best meet their students’ needs.

Importantly, following initial implementation and assessment of the foundation year, the DEEP team recommends a set of long-term revisions to enhance the foundation year. In particular, because soft skills and study skills are best learned in small classes, the DEEP team recommends that universities

implement the two core courses (study skills and soft skills) described above in small class settings whenever possible. Recognizing that small classes are not common in the open faculties in Moroccan universities, the team recommends that universities rely on graduate and undergraduate teaching assistants to help facilitate new pedagogical practices so that students get the individual attention needed for them to master necessary soft skills and study skills

Second, as faculty develop a greater knowledge of soft skills and a higher level of comfort with teaching these skills, the DEEP team recommends universities have faculty integrate soft skills training and pedagogical practices into a small set of elective courses. These electives should represent several disciplines as described above but should not include a large number of courses so as not to overwhelm students with choices around course selection.

Third, to create a community of practice around study skill and soft skill development in open universities in Morocco, universities would need to develop a culture of sharing effective practices. For example, a successful activity for teaching critical thinking skills or an effective flipped classroom activity for teaching problem-solving should be made available to other faculty within and across universities.

Finally, following the first year or two of the reform, the DEEP team recommends universities implement a peer mentoring program in which first-year students are mentored by later-year students who have already been through the new foundation year program. Similar to the Center for Learning Excellence model at Al Akhawayann University, peer mentors can help new students transition from secondary school to university, offer guidance on courses and resources on campus, and introduce first-year students to different clubs and societies on campus. Further, through their interactions with their mentees, peer mentors will model the study skills and soft skills that they developed in their foundation year. The frequency of interactions between the mentor and mentee pairs can be determined by the pair but should include regular meetings (e.g., at least once a week) during the first semester. Ultimately, universities may also want to implement a peer tutoring program in which students assist their peers with challenging course content or help them identify learning methods and study skills that work best for them (e.g., Al Akhawayan University Center for Learning Excellence).

## YEARS 2 THROUGH 4

To reinforce the skills that students learned in the foundation year, the DEEP team recommends that students be required to directly apply and practice these skills on a regular basis through two required courses. The first would be a one semester (minimum; students would have the option to do more than one semester if they choose) experiential learning course in the third and/or fourth year. This course could take one of many different forms, including an internship at the university or in the local community, a research project, or a service-learning project. The experiential learning course should include a minimum of 1 hour per week engaged in the internship, research, or community project as well as regular assessment in the form of a weekly discussion meeting with faculty mentors or graduate teaching assistants or a reflective journal describing the experience each week. The Elon University case study above (Exhibit 11) provides a good example of integrating experiential learning into BA program. One respondent also noted that the Ohio State University's Second-Year Transformational Program (STEP) program could be a model for this. All of these approaches can provide students with hands-on learning experiences doing work at organizations that interest them.<sup>158</sup>

The second required course would be a required one-semester service-learning course (again, students could take more than one semester if they choose). In this course, students would be required to volunteer either on campus or in the community for at least one hour per week. Volunteer



opportunities could include serving as a peer mentor for new first-year students, tutoring peers who need additional support, helping a faculty member grade, leading language chats with students, or helping in a community context. In addition, students would meet weekly with supervising faculty or graduate teaching assistants to discuss their experiences—e.g., what have they done? What successes have they had? What challenges have they faced? While participants in the key informant interviews and focus groups were generally optimistic about the possibility of implementing service-learning opportunities with public universities, they noted several potential challenges. Perhaps most critically, service-learning places considerable demands on faculty, who must integrate service-learning concepts into their teaching and develop and maintain relationships with the organizations where students are serving. Importantly, most respondents felt that the current class sizes at many public universities would prohibit the implementation of service-learning opportunities, and that providing students the support they need to do this work would require a fairly substantial resource outlay.<sup>159</sup>

Finally, as faculty development rolls out and faculty become better-versed in the pedagogical practices that support soft skill development and provide opportunities for practice, the DEEP team recommends that these practices be integrated not just into the foundation year and electives but into all courses across disciplines. Indeed, key informant interview and focus groups participants noted that soft skills should not be taught abstractly or in isolation from content that interests the students. Rather, soft skills need to be integrated into all coursework and made applicable to students’ disciplines of study. This will serve to provide continuous reinforcement of the soft skills students learned in their first year through opportunities to practice skills like critical thinking, cooperation, problem solving, public speaking, etc. Moreover, integration of these pedagogical practices across all university courses will provide a more consistent learning experience for students; this will help them learn what to expect in classes and create a culture of class participation and engagement. We include in Exhibit 15 below an example of a program that explicitly integrates soft skills programming throughout students’ four-year program.

Exhibit 15: Case Study: Minerva Schools at KGI

<b>Program:</b> Four Year Curriculum	<b>Implementers:</b> Minerva Institute	<b>Location/s:</b> U.S.-based, but programs take place around the world
<b>Target Groups:</b> Undergraduate and graduate students	<b>Best Practice/s:</b> Targeting multiple skills and continuous delivery	
<b>Targeted Soft or Study Skill/s:</b> Critical thinking, effective communication, creative thinking, interacting effectively		
<b>Program/Practice Description:</b> The Minerva Schools four-year curriculum begins by helping students build a solid foundation for their academic career. The curriculum is designed to help students develop fluid and adaptable skills through active learning. Year 1 (the Foundation Year) focuses on four cornerstone courses: Critical thinking (called Formal Analyses), creative thinking (called Empirical Analyses), effective communication (called Multimodal Communications), and effective interaction (called Complex Systems). These cornerstone courses teach students to apply the focus competencies across any discipline and are intended to provide the foundation for all subsequent years. In year 2 (the Direction year), students select a general major. In year 3 (the Focus year) students select a concentration within their major and learn practical knowledge that is intended to be applied across disciplines. They also begin their Capstone project, which serves as a bridge to students’ professional lives. Finally, in year 4 (the Synthesis year) students complete their Capstone project, in which they design, plan and produce a project that integrates their skills and interests. Students are required to communicate the results of the Capstone project to faculty, students and the broader community at the end of the year. Students also participate in two “Tutorial” courses, which are collaborative, student driven research		



projects. Coursework takes place both inside and outside of the classroom through experiential learning opportunities, which are designed to enhance critical soft skills (e.g., empathy, resilience, cooperation, focus, etc.).

**Resources & Capacity Needed:** Faculty with the knowledge and skills to explicitly teach the targeted soft skills; sufficient staff to support small group activities, discussions, etc.; contexts for experiential learning opportunities (e.g., connections to or relationships with the community).

**Challenges to Consider:** Training of faculty to teach these skills across disciplines; small class sizes are central to the program; cornerstone course content must be discipline agnostic and integrated across the entire university program.

**Potential Solutions:** *Short term* – hire a small number of faculty whose job it is to teach the cornerstone courses; begin with a set of cornerstone courses targeting a set of soft skills that take place in the first year (true foundation year); *medium term* – develop a faculty training program to teach faculty effective teaching strategies that support targeted soft skills; begin to use graduate teaching assistants to facilitate small group activities and discussions; perhaps focus on a small number of core courses across disciplines; implement “tutorial” courses for students in a couple these disciplines; *long term* – expand training to all faculty across all courses perhaps through a mentoring program; implement capstone project idea; expand use of teaching assistants to include both graduate and undergraduate students.

**Assessment:** Essays, speeches, and Socratic discussions in which students help one another understand ideas, issues and values; research projects followed by leading a group discussion; written tests are an option but only when they require students to provide counterarguments.

**References:**

[https://minervaschools-production-cms-uploads.s3.amazonaws.com/documents/Minerva\\_Overview\\_090519.pdf](https://minervaschools-production-cms-uploads.s3.amazonaws.com/documents/Minerva_Overview_090519.pdf)

[https://minervaschools-production-cms-uploads.s3.amazonaws.com/documents/Minerva\\_Schools\\_at\\_KGI\\_Student\\_Handbook.pdf](https://minervaschools-production-cms-uploads.s3.amazonaws.com/documents/Minerva_Schools_at_KGI_Student_Handbook.pdf)

## FOUNDATION YEAR LANGUAGE COURSES

The foundation year proposed by the ministry includes two language courses each semester. In this model, students can choose to study either English or French, depending on which will be their primary language of instruction, in addition to Arabic (MOE, 2021a). These courses will cover a range of topics and aim to raise students’ English ability to the B1 level according to the CEFR. At that level, students can understand conversation and text encountered in everyday situations, deal with most situations while traveling in English-speaking areas, produce simple text, describe experiences, state an opinion, and understand straightforward texts on topics in their field of study. In addition to the foundation year courses, the reform also includes one language course each semester for second-year students. These will cover more advanced topics and aim to raise English, or French, language ability to the B2 level in year 2. Exhibit 16 provides more details about the topics covered in the language courses each semester.

Exhibit 16: English language course topics by semester

SEMESTER	COURSE TOPICS
1	<ul style="list-style-type: none"> <li>• Introductions, basic interactions</li> <li>• International travel</li> <li>• Socializing and small talk: Conversational Skills</li> <li>• Communicating by phone, email, or letter</li> </ul>
2	<ul style="list-style-type: none"> <li>• Jobs and careers</li> <li>• Professional Communication in the Workplace</li> <li>• Oral Presentations: Pronunciation and Organization</li> <li>• Workplace Writing: Formal and Informal Communication skills</li> </ul>
3	<ul style="list-style-type: none"> <li>• Cross-cultural communication</li> <li>• Using language creatively across contexts</li> <li>• Using language effectively in meetings</li> </ul>
4	<ul style="list-style-type: none"> <li>• Digital communication skills</li> <li>• Negotiating</li> <li>• Brainstorming and evaluating ideas</li> <li>• Selling and marketing goods and services</li> </ul>

Source: MOE (2021b)

### ACHIEVING REFORM GOALS: SUGGESTED FOUNDATION YEAR LANGUAGE COURSE AND CURRICULUM MODIFICATIONS

As the stated reform goal is to prepare students to attain sufficient linguistic competence to successfully engage in content area classes in their major taught in English, or French, starting in year 2, the DEEP team recommends a more intensive, cohesive, and robust language instruction sequence so students may ascertain the B2 level *before* taking classes in the target language of the discipline. This aligns with language teaching as is typically the prerequisite requirement for the majority of English medium universities worldwide.

The current curriculum proposed by the Ministry emphasizes the development of functional, communicative English/French which is foundational and necessary; however, according to stages of language development and standards of language learning, the B1 level would not be considered sufficient linguistic proficiency for one to be able to successfully comprehend and produce academic content entirely in the target language (English or French) during the second year. Therefore, it is highly recommended that the sequence of the curriculum reflects a cohesive set of both conversational *and* academic English or French learning outcomes in the foundation year language courses with enough flexibility and differentiation to allow students to progress at their levels of proficiency. Students can take a placement test and consider their major discipline’s requirements to determine their language study course trajectory. A more intensive emphasis on second language learning for academic and specific purposes with a summer intensive and opportunities for extended learning will best support student retention and success, especially given the Ministry’s goal to have students start learning content in English/French starting year two.

At the B2 level, students will be able to comprehend and produce complex texts, understand and appropriately use academic or technical vocabulary of the discipline, take notes, engage in academic dialogue, and attend lectures in the target language. It is believed that if the Ministry were to revise the

proposed foundation year course curriculum and content to reflect an emphasis on intensive language learning for the purpose of academic study and provide alternative pathways for language study outside of the classroom, it would address some of the concerns that faculty and students raise about lack of language preparedness. As stated by a majority of students and faculty, “language is a challenge” and if students are coming at varying ranges of language preparedness, the current course sequence may not be enough to help prepare all students for academic study in the target language.

In essence, in order for the Ministry to achieve the goal of transitioning students into learning through English or French as a medium of instruction, it is suggested that the current curricular content and sequence be revised so that by year two, students can understand complex conversation and text in their field of study and on a range of professional and news topics and interact quite easily with native English speakers.

Exhibit 17 provides more details about the modified language curriculum that the ministry may consider with topics covered in the language courses each semester and details about the additional summer intensive and supplemental learning suggestions. Exhibit 18 includes specific details about the learning outcomes and specific curricular content for each course.

Exhibit 17: Language course topics by semester

SEMESTER	COURSE TOPICS
1	<ul style="list-style-type: none"> <li>Integrated Language Skills Level 1: Oral Communication and Intercultural Skills</li> <li>Integrated Language Skills Level 2: Reading and Writing</li> </ul>
2	<ul style="list-style-type: none"> <li>Communication in Business</li> <li>English for Academic Purposes 1</li> </ul>
Summer Intensive	<ul style="list-style-type: none"> <li>English for Academic Purposes 2</li> </ul>
3	<ul style="list-style-type: none"> <li>English for Specific Purposes: Critical Reading and Writing</li> </ul>
4	<ul style="list-style-type: none"> <li>English for Specific Purposes: Professional Communication</li> </ul>
Supplemental Learning	<ul style="list-style-type: none"> <li>Language labs</li> <li>Conversation groups</li> <li>Service Learning</li> </ul>

Source: DEEP Team (2021)

The foundation year reform reflects global evidence and trends. In the course guidelines, the Ministry encourages educators to use competency and task-based methods, in which students practice their language ability in real-world scenarios (MOE, 2021b). There is evidence that task-based methods can have a powerful impact on both language skills and soft skills (Hismanoglu & Hismanoglu, 2011). The guidelines also align with the CEFR, which calls for a comprehensive approach to language instruction that covers a range of domains, from ordinary social interactions to specialized interactions in a person’s field of study (Council of Europe, 2001). Moreover, the Ministry encourages educators to use blended learning that combines face-to-face activities with digital activities that take place both inside and outside the classroom. In flipped classrooms, for example, students study at home using audiovisual tools. The global response to the COVID-19 pandemic suggests blended learning will become increasingly popular in higher education (Uys & Douse, 2020). Universities elsewhere in the MENA region are taking a similar approach with their own foundation programs. Qatar University, for example, offers an intensive [one-year English program](#) that incorporates blended learning and student-centered teaching methods. This model is supported by a finding in much of the literature on EMI in the MENA region which indicates

that the result of non-intensive English language courses of study is that students lose motivation or only those with access to resources for private school and tutoring in a foreign language thrive.

That being said, a more intensive program of language study with tailored learning outcomes is best aligned with the Ministry’s goal of equipping students to study the academic content of their major in either French or English.

## ENGLISH AS A MEDIUM OF INSTRUCTION

In addition to the foundation year courses, the reform calls for the introduction of EMI. EMI refers to the teaching and learning of content or academic subjects in the English language in situations where English is not the majority language. (British Council, 2014). This will be a gradual process, based in part on the availability of English-proficient staff to teach in a particular subject area (personal communication, Oct. 19, 2020) as well as students’ mastery of academic language skills in order to be able to effectively achieve high-level academic content mastery in a second language. By the end of the reform period, each public university will have at least one program with English as the medium of instruction (aside from English departments).

As shown in Exhibit 18, the current language of instruction in public universities is a mix of Arabic and French, with Arabic mainly used for the arts and humanities and French mainly used for science and technology. The exception is Al Akhawayn University, a public university that is privately managed, which has used English as its medium of instruction since its founding in 1995. Some private universities also offer English as a language of instruction, often in business and management programs. Under the reform, it is unclear which public university programs will transition to English, although it seems likely that some science and technology programs will, and perhaps other subjects currently taught in French, such as medicine (Errihani, 2017; Belhiah & Abdelatif, 2016). Moreover, at least one public university has indicated it will transition its business program to English (personal communication, Oct. 19, 2020).

Exhibit 18: Public university subject area by language of instruction

ARABIC	FRENCH	ENGLISH (POTENTIAL)
<ul style="list-style-type: none"> <li>• Geography</li> <li>• History</li> <li>• Law</li> <li>• Literature</li> <li>• Psychology</li> <li>• Sociology</li> </ul>	<ul style="list-style-type: none"> <li>• Economics</li> <li>• Business</li> <li>• Medicine</li> <li>• Political Science</li> <li>• Science</li> <li>• Technology</li> </ul>	<ul style="list-style-type: none"> <li>• Business</li> <li>• Medicine</li> <li>• Science</li> <li>• Technology</li> </ul>

The transition to English as a medium of instruction also reflects global trends. More and more, HEIs around the world are selecting English as a language of instruction for at least some subject areas. Two developments are driving this trend: a desire among universities to attract international students, and an increasing preference for English in some spheres, such as business and science (Liddicoat, 2016). In Morocco, transitioning to English may capitalize on both developments. While the country is less popular as a study abroad destination for Americans than other parts of the world, it is by far the most popular in North Africa, according to the [U.S. Embassy in Rabat](#), and saw large increases in U.S. students before the pandemic. Morocco is also the second largest source in North Africa, after Egypt, of international students studying in the U.S. In addition, while French remains a dominant language in commerce, economics, education, and government, many young Moroccans believe English is an important skill to have when looking for a job (British Council, 2016).

Below, we take a closer look at existing assets and challenges related to English language instruction in Morocco, concluding with recommendations for how the Ministry can capitalize on the assets, and address the challenges, as it implements the reform.

## RECOMMENDATIONS FOR ENGLISH LANGUAGE INSTRUCTION

To help the Ministry capitalize on the assets and address the challenges discussed above, the DEEP team presents four recommendations, discussed in more detail below.

### RECOMMENDATION #1 CURRICULAR, METHODOLOGICAL, AND ASSESSMENT CONSIDERATIONS

- **Curricular revision:** Most notably, a more intensive language study sequence and curriculum that prepares students to use English or French as a language of study in their major is strongly recommended so that students are able to achieve an appropriate level of fluency for success. In terms of programmatic design, the Ministry may consider the provision of specific Student Learning Outcomes (SLOs) that detail the linguistic competence students need to achieve (syntax, phonology, lexicon, expressive and receptive skills etc.). This will help make explicit assessment focus areas and the clear progression and assessment from Integrated Skills to English for Specific Purposes Courses. The curriculum should account not only for students entering with different CEFR levels in English but also for the wide variability within these levels.
- **Methodological Emphasis on English/French for Academic Purposes:** In order to help facilitate students' mastery of the level of Cognitive Academic Language Proficiency, or academic and technical knowledge needed to be able to master content in English/French in an EMI model, the Ministry might consider the integration of EAP (Jordan, 2010; Hyland, 2006) or CLIL (Content and Language Instructional Learning) teaching and learning methodology in the language courses to better prepare second-year students to attend classes fully in the target language. These content-based and contextualized approaches to language learning include both language and content objectives as learning outcomes, serve as a bridge for students to be ready for full instruction of disciplinary content in English. The ultimate goal of EAP methods are to help equip students to use language appropriately for study. An EAP program of courses during spring, summer, and year 2 would help students develop language skills required to perform in an English-speaking academic context across core subject areas generally encountered in the university setting. Courses offered to second year students using this methodology will cover more advanced topics and more strategically aim to raise English ability to the B2 level in order to be prepared for EMI, or full content instruction in English where there is no linguistic scaffolding. Courses aligned with EAP and CLIL content and teaching will more adequately prepare students with the academic and technical language mastery needed to thrive in an EMI setting. See Exhibit 19 for an example of a cadence of courses that would achieve this goal.

Revised Sequence for Language Study: Course Objectives

**Semester 1**

Integrated Skills 1: Oral Communication: This course offers practice in mastering the patterns of spoken English for everyday communication through the study of English pronunciation, conversation strategies, related grammar, writing, and spelling at a high beginning level of proficiency with oral communication and listening as the focus through authentic practice.

Integrated Skills 2: Reading and Writing: Students will study vocabulary and comprehension strategies for academic reading, read extensively for fluency, compose paragraphs and short reading-based essays, and develop control of a range of sentence structures and verb forms.

**Semester 2**

Communication in Business: This course is designed to build confidence in speaking, listening, reading, and writing English in business contexts. Students will increase vocabulary and practice using business English in everyday business situations on the telephone, and in meetings, presentations, or negotiations. In addition, students will develop business English skills by writing emails, memos, and business letters, participating in simulated meetings and role plays, and discussing case studies.

English for Academic Purposes 1: This course aims to develop students' English language proficiency in a college context. The main emphasis is on improving students' skills and confidence in using English for such purposes as: reading and writing college-level texts, understanding spoken language and delivering an oral presentation in a college setting, and expressing oneself at a high level of proficiency.

**Summer Intensive**

Intensive English for Academic Purposes 2: Students will develop academic and technical vocabulary, improve reading comprehension of university textbook materials, short stories, magazine articles, journals, and online/library materials, and research paper writing skills.

**Semester 3**

English for Specific Purposes: Reading and Writing in the Discipline: Upon completing the course, the student will have an enhanced knowledge of discourse conventions and technical vocabulary in their chosen field of expertise. Students will engage in reading and writing tasks that relate to the academic disciplines.

**Semester 4**

English for Specific Purposes: Professional Communication: Students will apply advanced communication patterns to understand lectures, speak fluently in academic settings and communicate broadly in group interactions. Students will learn effective techniques for applying advanced strategies to process knowledge from their specific field of study and communicate precise meanings of standard American English. This course will allow students the opportunity to give presentations with idiomatic vocabulary from literature, media, and research sources.

Exhibit 20: Language placement testing levels and equivalencies

Levels of Instruction						
Levels**	CEFR Levels (upon completion)	TOEFL Score (upon completion)	IELTS Score (upon completion)	Placement Exam (iTEP AcademicPlus)*	TOEIC*	Hours of Instruction
60 – Advanced	C1+	87+	7 and up	3.5+	785-990	250-300 hours
50 – High Intermediate	B2	57-86	6.0-6.5	3.0-3.4	605-780	
40 – Intermediate	B1-B2	44-56	5.0-5.5	2.5-2.9	405-600	
30 – Low Intermediate	A2-B1	30-43	4.0-4.5	2.0-2.4	255-400	
20 – High Beginner	A2	25-30	--	1.0-1.9		
10 – Beginner	A1	14-24	--	0.0-0.9	0-250	

Source: [Equivalency Scores](#)

\* The Test of English for International Communication (TOEIC) is an international standardized test of English language proficiency for non-native speakers

**The International English Language Testing System (IELTS)** is jointly managed by the British Council, the University of Cambridge Local Examinations Syndicate and the International Development Program of Australian Universities and Colleges and administered by UCLES. It provides a systematic and continuously available system of assessing the English-language proficiency of non-native speakers who intend to study or train in the medium of English and is used by many EMI-structured universities in MENA (e.g., Jordan) This is a very well researched testing system and if at all possible, incoming students should be encouraged to take this test as an entry level assessment and placement for first year foundation courses. In addition, before a student is permitted to take courses in EMI, they should score a minimum level of 6.5. Research into the academic performance of overseas students admitted into U.K. institutes of higher education on the basis of IELTS results has indicated that an overall score of 6.5 should be seen as the "dividing line between an acceptable and unacceptable risk of failure" (Davies and Criper, 1987).

- Placement testing and Differentiated Learning Opportunities: Another suggested solution to the overcrowding of students and wide range of language learner proficiency levels is to institute a language placement test before and after the first-year foundation courses so that students are appropriately placed in language courses matched to their individualized language development levels. For example, it may be important for proficient students to get credit and flexibility to skip some modules to free up much-needed classroom space. Such an approach also allows students to pursue more advanced language classes or other courses of interest. The modules are intended to provide flexibility and differentiation based on language readiness levels, so the Ministry may want to consider a placement test to ensure differentiated language learning.



When intense language training is needed, perhaps we would use all 24 credit hours for one language in order to focus students to attain the greatest amount of language. As it stands, students entering at the cusp of A2 or below will be unlikely to attain a B1 by the end of the formative year. By contrast, students with higher levels of proficiency should have the option of beginning some content courses while simultaneously strengthening their readiness in other academic areas such as study skills. Therefore, as a differentiated option, students should be able to test out of semester 1 or semester 2 language classes, which would address issues of overcrowding. Potentially, students who test out of these classes could serve as peer tutors for taking the foundation year language classes. See Exhibit 21 for an example of differentiated instruction.

Exhibit 21: Illustration of foundation year language course sequence for different proficiency levels and language of instruction

		Student 1	Student 2	Student 3	Student 4
Language of Instruction (LOI):		ENGLISH	FRENCH	ENGLISH	ARABIC
Language Proficiency:		English ■■■	French ■■■	English ■■■ French ■■■	English ■■■ French ■■■
ENGLISH	FYS Integrated Skills English 1 Oral Communication	✓			✓
	FYS Integrated Skills English 2 Reading and Writing	✓			✓
	Communication in Business English	✓			✓
	English for Academic Purposes 1	✓		✓	✓
	Summer English for Academic Purposes 2	✓			
	English for Specific Purposes Reading and Writing in the Discipline	✓		✓	
	English for Specific Purposes: Professional Communication	✓		✓	
	Supplemental Language Labs and Discussion Groups English	✓		✓	
FRENCH	FYS Integrated Skills French 1 Oral Communication		✓	✓	✓
	FYS Integrated Skill French Reading and Writing		✓	✓	✓
	Communication in Business French		✓	✓	✓
	French for Academic Purposes 1		✓	✓	✓
	Summer French for Academic Purposes 2		✓		
	French for Specific Purposes Reading and Writing in the Discipline		✓		
	French for Specific Purposes: Professional Communication		✓		
	Supplemental Language Labs and Discussion Groups French		✓		

\* **English/French for academic purposes (EAP)** commonly known as Academic English/French, entails training students, usually in a higher education setting, to use language appropriately for study

## RECOMMENDATION #2: STRENGTHEN NETWORKING OPPORTUNITIES

There is much innovation in English language instruction in Morocco. Educators are already experimenting with blended learning, service learning, and student-centered methods such as communicative and task-based language teaching. These appear to be grass-roots efforts, with educators taking it upon themselves to try new ways to engage students. Educators would likely benefit from local and global networking opportunities to share, refine, and coordinate their methods and develop systems for evaluating, improving and sharing their methods. While MATE organizes conferences, they are aimed primarily at the high school level. Therefore, the Ministry may wish to help MATE expand and reach out to university teachers by organizing conferences and developing teaching and learning materials for higher education. MATE could also facilitate collaboration between university and high school teachers on service-learning programs and other joint efforts. Such efforts could help provide a smoother articulation between secondary and post-secondary by clarifying the expectations for students and teachers.

It is important to note that there are regional and international supports for these efforts. For example, the Ministry can help educators tap into regional associations such as the [MENA Higher Education Leadership Forum](#). Transnational partnerships and collaborations with universities, organizations, and private educational consulting firms specializing in professional development training programs for teachers on content-based, task-based approaches and EMI present an alternative opportunity to strengthen capacity for teachers and broaden opportunities for expanding global networks while addressing the challenges of linguistic and pedagogical preparedness. For example, Lesley University's Institute for English Language and Global Capacity Building Programs Beyond Borders, in Cambridge, MA, USA, offers online English for Academic and Specific purposes classes and second/foreign language teacher training certificate programs for HIEs. In addition, Morocco has participated in nearly 50 Erasmus + Programs, and capacity may be strengthened by expanding language study, teacher preparation, and materials development through expanded partnerships (European Commission, 2018). In addition, professional development of teachers can be facilitated through global virtual exchange partnerships. For example, the Duke-UNC Consortium for Middle East Studies and the University of Arizona Center for Middle Eastern Studies have collaborated to establish the [Teachers Collaborating Across Borders Program](#), a unique opportunity for educators from the United States and teachers from the MENA region to engage in international dialogue and virtual exchange.

## RECOMMENDATION #3: STRENGTHEN IN-SERVICE TRAINING OPPORTUNITIES

University teachers—and indeed, teachers at all levels of education—are perhaps the most important factor in a student's ability to learn. The difference between a strong teacher and a weak teacher can be up to a year's worth of learning (Hanushek & Rivkin, 2010). Thus, for the foundational year English language reform to be successful, faculty will likely need to be trained in communicative, task-based teaching, student-centered methods, blended learning, and other effective practices. Faculty will need ongoing support to implement these methods. Students reported in the survey, "There are those faculty who depend on memorization and there are those who rely on understanding" and many courses where students "need to repeat what the professor says instead of critical inquiry, personal connections, or creative thought. Another student noted, "In high school, we used to rely on memorization only." One faculty interviewed mentioned, "faculty are not here to teach, but to lecture" which indicates a level of expectation of university professor as lecturer in language classes especially; in preparation for 21<sup>st</sup> century skills, research indicates that learning must be student-centered and active. These reflections indicate that for sustained impact and transformation in pedagogical approaches to be implemented in practice in higher education, the Professional Development (PD) work must be tailored to specific

educational settings and provided through ongoing, integrated, and theme-based sessions with follow-up coaching, allowing practitioners to bridge gaps between theory and practice and engage in critical reflexivity with implications for practice.

Moreover, to promote the success of the transition to EMI in some programs, intensive teacher training and coaching is also strongly recommended. In-service training, such as conferences, seminars, workshops, and coaching/mentoring models can be an efficient way to train both new hires and experienced professors. Research indicates that successful faculty instructional development focuses on a specific topic, includes reading materials for participants, links participation to financial incentives such as a salary increase, and includes follow-up opportunities for trainers to mentor participants (Popova, Evans, & Arancibia, 2016). In Morocco, the Ministry may be able to leverage existing resources to provide in-service training for public university educators. For example, the Ministry could subsidize foreign-funded courses, such as the PCELT, or certificate programs and courses in EAP as well as current methods of teaching second language which can be expensive. Alternatively, the Ministry could build capacity by supporting local educators who are already implementing communicative, task-based teaching and blended learning to organize trainings for other teachers in a TTT (Teachers Teaching Teachers, or in this case, faculty teaching faculty) professional development model (Christensen, 2006). The options for faculty to spend short, intensive times in English-speaking professional development abroad could also increase their language proficiency, expand their teaching toolkit and establish an extended community of practice. One creative and accessible example of TTT in a regional context includes online education talks offered through virtual platforms and livestreaming. Perhaps the Ministry could support an online Teacher Channel which could include video demonstrations of best practice in second language teaching and higher education, provide samples of research-based lessons and unit designs, and offers workshops, panel discussions, and lectures by top experts in the field. Although a number of platforms exist with similar structures to support EFL teachers of introductory English classes in elementary and secondary settings, such as Morocco English <https://moroccoenglish.com/>, founded in 2013, there is no such platform to support language teachers in higher education. This may be a niche opportunity to scale language teacher training via innovations in technology.

#### **RECOMMENDATION #4: EXPAND THE NUMBER OF NON-RESEARCH TEACHERS**

Large class sizes are a problem in Morocco's public universities and may hinder the reform's effectiveness. The limited number of English department staff, who may play a large role, at least initially, as English is introduced as a language of instruction, only compounds the problem. To address this, the Ministry should expand the number of non-research positions that focus purely on teaching. One option, especially for the foundation year courses, is to hire secondary school English teachers, who already have teaching experience and are likely well-qualified to teach at the first-year undergraduate level. Another option is to hire PhD candidates as teaching assistants, who can help professors with grading and can mentor students during office hours or small practice sessions. However, this option may be limited, as discussions with professors indicate there may be few candidates to choose from and they may live far from the university (personal communication, Jan. 25, 2021). There are also opportunities to tap into and increase English language teaching exchange programs where foreign, English speaking undergraduate and graduate students/teaching assistants who wish to expand their teaching skills in a global context, are placed in a teaching position in Moroccan schools.

Providing small stipends to students who excel in English to act as TAs would help fill the gap and also motivate students to perform well. The Global Addicest Fellowship (GAF) Program offers secondary teaching positions in its educational centers in Rabat, Marrakech, and Casablanca. The fellowship serves to enhance the learning experiences of the students at Addicest Centers in Morocco, Tunisia, and the

Democratic Republic of Congo. GAFs are highly-motivated recent college graduates, or gap year students, with an interest in education. GAFs undergo teacher training with an emphasis on working with our high-school students applying to American universities. The International School of Morocco currently attracts foreign English teachers. [CIEE Teach Abroad in Morocco](#): CIEE's Teach Abroad program includes the CIEE TEFL certification course, visa assistance, health and travel insurance, and placement at an American language school in Mohammedia, a small seaside town located between Casablanca and Rabat. Perhaps this teacher exchange model could be expanded and subsidized to support English language teaching assistant or teaching positions in tertiary institutions. Although teacher exchanges for the Foundation Year I competency, communicative, and task-based language classes would be an effective way to address the shortage of faculty with linguistic preparedness, it should be noted that teaching EMI requires a high level of specialized expertise and formative training in the emerging pedagogical approach. Therefore, for these positions, foreign university faculty with expertise in EMI and blending content and language learning should be sought.

#### **RECOMMENDATION #5: ENCOURAGE LANGUAGE PRACTICE OUTSIDE OF SCHOOL**

Given the generally low English language ability of public university students, many will likely need more opportunities to strengthen their skills beyond what the foundation year provides. The Ministry can encourage students to establish language clubs, coffee chats, and WhatsApp or Skype groups so that students can practice among themselves outside of school. The Ministry can also encourage faculty and senior-level students to set aside office hours or lunch hours to tutor small groups of first-year students. Evidence from universities in other parts of the MENA region suggests these have been effective practices to strengthen English language ability (Al Othman & Shuqair, 2013). There is a growing trend in Global Virtual Experiences (GVE) as a way to promote language development and cross-cultural exchange. A scalable and durable way to offer participative, accessible, and collaborative learning to higher education students is through “telecollaboration” or “virtual exchange.” This is an innovative form of online learning which involves engaging learners in interaction and collaboration with classes in distant locations through online communication technologies under the guidance of teachers or trained facilitators. For instance, through the Stevens Initiative, Virtual Language Exchange, students in California who are learning Arabic and Kurdish are matched with English-language learners at universities in the Middle East for one-on-one weekly conversations to practice their language skills with a native speaker. In addition, members of the [INTENT consortium](#) have come together with colleagues working in different disciplines in Higher Education around the globe to launch UNICollaboration as a cross-disciplinary academic organization to support telecollaborative practitioners and to promote telecollaboration and virtual exchange in higher education. The Ministry may want to consider promoting roundtable discussions and global conversations partner programs where students from Morocco are paired together with native English-speaking international students in order to practice English and expand intercultural knowledge through informal conversations. The Ministry may also wish to consider more outside-the-box strategies. Surveys of Moroccan youth, for example, suggest that playing video games, especially ones where Moroccan players interact with players from English-speaking countries, can help improve English skills (Asserraji, 2020).

## **GENERAL EDUCATION**

The general education component of the foundation year has three goals: (1) to expose students to diverse academic disciplines to facilitate improved choice of academic major, including the possibility of switching from one major to another, (2) to provide students with practice in applying the soft and study skills, and (3) to broaden students understanding of social, economic, and cultural importance and

to expose them to ways these issues can be addressed by natural science, mathematics, humanities, and social science disciplines. These goals, focused on both multidisciplinary knowledge and soft and study skills, are similar to the general education goals of the three universities shown in Exhibit 6.

The DEEP team recommends 12 credits of general education in the Bachelor's curriculum. This is more general education credits than originally proposed by the Ministry but less than the general education requirement at Al Akhwayan University, American University of Cairo, or the typical American university (see Exhibit 6). The public universities have no tradition of general education, and interviews revealed that many professors and students are not familiar with its goals, modalities, and benefits. It is therefore recommended to start small, experiment and innovate over time, and perhaps increase the required credits later.

The DEEP team recommends two general education courses, Gen Ed I and Gen Ed II, to be taken by all students regardless of academic major. Gen Ed I will focus on the natural sciences and mathematics, while Gen Ed II will focus on the humanities and social science. The courses will expose students to the various academic disciplines within these two broad areas of study, providing an overview of the scope, core ideas, and methods of the associated disciplines. The courses will then proceed to examine how current "big issues" such as climate change, global health pandemics, poverty, ethnic conflict, youth employment, and other topics can be addressed by the use of the natural sciences and mathematics (Gen Ed I) and the humanities and social sciences (Gen Ed II). Writing exercises and soft skills, including critical thinking skills, problem-solving, and cooperation, will be integrated throughout the two courses.

In contrast, at MENA and American universities with comprehensive and long-established general education curricula, students typically take three types of general education courses. The first set is foundation courses on topics such as study and soft skills, writing, other literacies (reading, information, technology, statistics), or language. The second set, consisting of elective courses outside the major, is chosen by the student from a list of approved core courses designed to meet general education specifications set by the university's office of academic affairs. Typically, these courses are taught by the relevant academic departments but have null or minimal prerequisite requirements and the majority of the students taking them are non-majors. The third set consists of courses in which students integrate knowledge from multiple disciplines and practice skills of various types.

Limiting the general education component in Morocco to a small number of courses, each of which would deal with multiple disciplines, is necessary given the highly limited mobility of students between establishments in the public universities and professors' lack of experience in teaching non-majors. Under the current structure, students in most majors are not permitted to take courses outside the establishment that houses their major. Establishments are narrowly specialized and not equipped to teach a wide range of disciplines. Professors are accustomed to teaching students from only those majors within their establishment.

Ideally, students would exit their establishment and take core courses from other establishments. However, even if the administrative structure of the universities allowed this, two challenges would arise. Firstly, establishments and departments would have to design new courses for non-majors and, secondly, professors would have to learn how to teach their discipline to students outside the major. Both of these changes will take time. It is for these reasons that the DEEP team recommends just two general education courses, each of which exposes the student to multiple disciplines. The curricula for these courses should be developed for the entire university by the Vice President for Academic Affairs. These courses could be taught by professors who are familiar with multiple disciplines and who see value in multi-disciplinary modes of thinking or they could be taught by adjunct professor hired

specifically to teach these courses. In the short-term, the Vice President for Academic Affairs could organize centrally the teaching of the general education courses for majors allowed to take course outside of the establishment where it is housed, while establishments forbidding outside courses would organize the two general education courses themselves, using the curriculum developed by the office of the Vice President.

In the medium term, the general education curriculum should be housed at the university level within an academic unit parallel to the existing establishments but serving all establishments in the university. This could be a structure such as the “university college” which many American universities have created to house first-year, general education and core competency programs. In large American universities, the university college is typically staffed by professors with an advanced degree in a particular academic discipline as well as training in the theory and practice of teaching. Promotion and tenure in the university college is typically based on the quality of both teaching and research, though less research is expected as compared to professors in the discipline-based departments.

The general education courses could serve as “pedagogical laboratories” for the most talented and creative instructors to develop and test methods of teaching these skills. From the general education courses, examples could be extracted on how soft and study skills can be integrated into instruction and these “best practices” could be taught to other professors in training workshops. Through experimentation and refinement of the teaching of soft skills and writing in these courses, universities can develop their own set of “best practices” for courses throughout the institution. These methods and examples of how these skills can be integrated into instruction can then be disseminated to all instructors through workshops.

## MODERN LITERACIES

This course will provide students with information literacy, technological literacy, and statistical literacy required for academic study. The information literacy portion of the module will prepare students to locate, access, and evaluate information for coursework. The statistical literacy portion will focus on the use and interpretation of graphs with an emphasis on simple descriptive statistics such as percentages and averages. Together, the information literacy and statistical literacy portions of the modern literacies course will give students basic research skills that can be built upon later in the two research methods courses planned by MOE for the fourth year. The technological literacy portion will introduce students to major types of computer software (e.g., word processing, spreadsheets, presentation software, and instructional learning platforms) and Internet navigation.

## PUBLIC SPEAKING

This course will give students principles and practice for the preparation of oral presentations. It will help them choose and narrow speech topics, draft an outline using correct formatting and style, open and close a presentation, retain audience attention, and gain confidence in speaking.

## IMPLEMENTATION RESOURCES AND POLICIES

Throughout the recommendations described above we have referred to numerous practices that are essential for the foundation year but are also critical for the implementation of all other programs and practices across the university. These include the use of teaching assistants, active learning strategies, assessment approaches, and faculty capacity building. We describe these in more detail below, along



with several other implementation resources and policies that may be helpful as the Ministry and universities consider the implementation of the DEEP team’s recommendations.

## TEACHING ASSISTANTS

### DEFINITION: TEACHING ASSISTANTS

A “**graduate teaching assistant**” (GTA) is a graduate student enrolled in a university graduate program (masters or doctoral) who either assists faculty in teaching undergraduate courses or who teaches undergraduate courses. GTAs typically provide more personalized instruction to smaller groups of undergraduates in subsections of a large course.

An “**undergraduate teaching assistant**” (UGA) is an undergraduate student enrolled in a university undergraduate program (typically upper-level students) who supports faculty in course delivery, including creating a syllabus, instruction, and grading.

Overwhelmingly, the literature, faculty, and students identified large class sizes a significant barrier to the BA reform. To address this barrier, the DEEP team recommends that universities expand their use of graduate and UTAs. The benefits of teaching assistants are well-established. GTAs have been found to influence students’ satisfaction with courses, especially large courses, in part because they are seen as enthusiastic, more approachable, and better able to relate to undergraduate students than faculty (Deacon & Hajek, 2011; Kendall & Schussler, 2012). In addition to supporting faculty, serving as a teaching assistant also helps the teaching assistant. For example, serving as a GTA helps prepare the next generation of faculty as they learn how to design curricula, teach undergraduates, and grade using constructive feedback (Eller, 2014). GTA positions can also foster essential employability skills, including time management, negotiation, communication, and cooperation. For undergraduate students, serving as a teaching assistant helps them engage with the area content more deeply and fosters key communication and interpersonal competencies—skills valued by the Ministry (Forbes et al., 2017). Moreover, there is ample evidence to suggest that teaching assistants in general, and GTAs specifically, can help facilitate active-learning pedagogical practices, especially in large classes. For example, in a large lecture, students could be divided into small teams and GTAs could be assigned to specific sections of the classroom. The GTAs serve as facilitators for their assigned groups and help guide students to construct knowledge and develop skills such as critical thinking (Simonson, 2019). By supporting professors with their grading, GTAs can also support the integration of continuous assessment approaches, even in large classes.



Exhibit 22: Examples of universities around the MENA region that have teaching assistant programs

UNIVERSITY	COUNTRY	PUBLIC OR PRIVATE	DESCRIPTION	LINK
Alfaisal University	Saudi Arabia	Private	Teaching assistant positions are for graduate students and commonly involve academic tutoring or laboratory session facilitation as well as exam preparation and coordination.	<a href="https://jobs.alfaisal.edu/site/t-cop-110118">https://jobs.alfaisal.edu/site/t-cop-110118</a>
American University of Beirut	Lebanon	Private	The Graduate Fellowship Assistantship Program (GFAP) aims to support outstanding master’s students in pursuit of their degree and is designed to enrich students’ educational and professional experiences. The GFAP includes both graduate teaching and research assistants.	<a href="https://www.aub.edu.lb/ogc/Documents/1541_2.pdf">https://www.aub.edu.lb/ogc/Documents/1541_2.pdf</a>
American University in Cairo	Egypt	Private	Teaching assistantships support graduates or graduate students and are intended to help course instructors facilitate learning activities inside and outside of the classroom. American University in Cairo also offers a teaching assistant professional development program that consists of a set of workshops including: Academic integrity, scaffolding, and introduction to blackboard (the e-learning platform) among others. This model could also be adapted for new faculty training.	<a href="https://www.aucegypt.edu/academics/graduate-studies/teaching-assistantships#:~:text=Teaching%20assistants%20at%20The%20American,inside%20and%20outside%20the%20classroom.">https://www.aucegypt.edu/academics/graduate-studies/teaching-assistantships#:~:text=Teaching%20assistants%20at%20The%20American,inside%20and%20outside%20the%20classroom.</a>  <a href="https://www.aucegypt.edu/faculty/center-learning-and-teaching/teaching-assistants-professional-development-program">https://www.aucegypt.edu/faculty/center-learning-and-teaching/teaching-assistants-professional-development-program</a>
American University of Sharjah	United Arab Emirates	Private	Graduate assistantships are offered to qualified graduate students and include both graduate teaching and research assistants. Assistantships are designed to offer mentored teaching or research experience. Positions can be held for no more than two years.	<a href="https://www.aus.edu/admissions/masters-degrees/assistantships-and-employment/graduate-assistantships">https://www.aus.edu/admissions/masters-degrees/assistantships-and-employment/graduate-assistantships</a>

UNIVERSITY	COUNTRY	PUBLIC OR PRIVATE	DESCRIPTION	LINK
King Fahd University of Petroleum and Minerals	Saudi Arabia	Public	The graduate assistant program is designed with the idea that graduate assistants will return to serve academic in Saudi Arabia. The program aims to help students develop teaching skills that can be used in future employment and to offer guidance on best practices in research. They offer a training program that focuses on a range of topics and they target key soft skills necessary for success in graduate school and beyond. They also offer incentives for their graduate students.	<a href="http://www.kfupm.edu.sa/deanships/dad/SitePages/en/ContentDetailsPage.aspx?CUSTOMID=101&amp;LinkID=GetNestedMenus377">http://www.kfupm.edu.sa/deanships/dad/SitePages/en/ContentDetailsPage.aspx?CUSTOMID=101&amp;LinkID=GetNestedMenus377</a>
Qatar University	Qatar	Public	Graduate assistantships are competitive positions for graduate students and are housed in one of four “pillars” (energy and environment, social sciences and humanities, health and biomedical sciences, and information and communication technology). Assistantships include both graduate teaching and research assistants.	<a href="https://www.qu.edu.qa/research/graduate-studies/prospective-students/graduate-assistants">https://www.qu.edu.qa/research/graduate-studies/prospective-students/graduate-assistants</a>
United Arab Emirates University	United Arab Emirates	Public	Graduate teaching assistantships are for full-time graduate students who participate in teaching activities at the University. GTAs are supervised by a faculty member who is expected to provide periodic feedback on the GTA’s performance.	<a href="https://www.uaeu.ac.ae/en/cgs/teaching_assistantship.shtm">https://www.uaeu.ac.ae/en/cgs/teaching_assistantship.shtm</a> !

Note: Several other universities in the MENA region appear to have some kind of teaching assistant program either for specific populations or for certain schools, including Khalifa University, Lebanese American University, Al-Balqa Applied University.

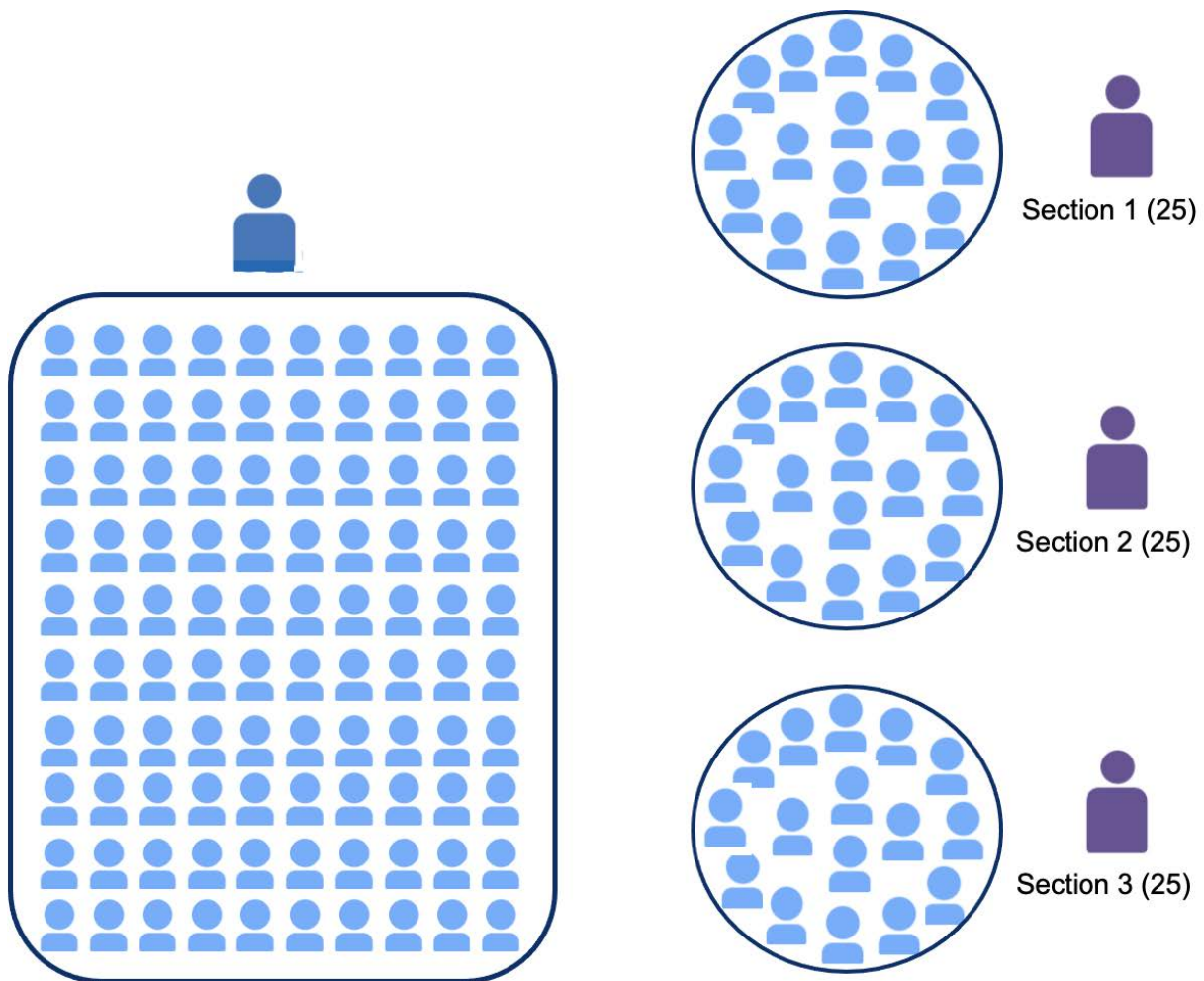
## ROLE OF A TEACHING ASSISTANT

When they are mentored by a faculty member, GTAs can act as instructors for an undergraduate course or they can take on limited teaching responsibilities in a course taught by a faculty member (e.g., give a lecture or two). More commonly, however, GTAs lead smaller sections or labs for large lecture courses taught by a faculty member at the university. These small sections can facilitate small group discussions, question-and-answer sessions, and active learning pedagogical practices (described in more detail below). For lab-based courses (e.g., biology, chemistry, etc.), GTAs can help prepare for laboratory sessions by setting up materials or stations, can support students in laboratory activities, or

even lead laboratory sessions. GTAs also commonly evaluate student essays, projects, labs, papers, or quizzes to help facilitate formative assessment throughout the semester and can proctor exams. Finally, GTAs can also oversee experiential learning opportunities or requirements, including internships, service-learning, and undergraduate research (see Gardner & Jones, 2011 for a review).

Below is an illustration of how using GTAs can help address high student/faculty ratios common in the open access programs. In this example, we start with a class of 500 students. This class of 500 can be broken into 20 sections of 25 students each with one GTA leading the section—seen in the exhibit above. It is also possible to create 20 sections and have one GTA lead several sections at different times or on different days, thereby reducing the number of GTAs needed for a single course.

Exhibit 23: Illustration of how a GTA could work



Undergraduate teaching assistants are commonly involved in tutoring students who might be struggling; leading study skills sessions or review sessions; assisting with grading papers and quizzes, as long as there is a clear rubric is provided; and supporting class management (e.g., taking attendance, distributing materials, etc.) and serving as peer mentors (Forbes et al., 2017).

## TRAINING TEACHING ASSISTANTS

Key informant interview and focus group participants also raised concerns about the quality of teaching assistants and expressed a need to ensure that quality is high. To accomplish this, the DEEP team recommends that teaching assistants be required to undergo a training or set of trainings designed to improve their skills when supporting undergraduate learning. Historically, teaching assistant trainings have been relatively short (ranging from a couple of hours to a day or two) but more recently, in an effort to improve the quality of teaching assistants, training programs have been longer (e.g., eight weeks to an entire semester) (Lang et al., 2020). Exhibit 24 below offers a set of recommended topics that should be covered during training sessions before a teaching assistant enters his/her own classroom or section.

Exhibit 24: Recommended topics to be included in teaching assistant trainings

<b>Recommended topics for teaching assistant training (not an exhaustive list)</b>
<ul style="list-style-type: none"><li>• Understanding how students learn</li><li>• Developing courses and syllabi</li><li>• Facilitating class activities (particularly using active-learning pedagogy)</li><li>• Building rapport with students</li><li>• Constructive grading</li><li>• Using technology and integrating it into their teaching</li><li>• Addressing challenges in the classroom</li><li>• Ethical behavior</li><li>• Resources and accommodations for students with disabilities</li><li>• Obtaining student feedback on teaching practices</li></ul>

There is some evidence to suggest that GTAs should also be required to attend a subject-specific training to learn more about teaching that particular topic, though research has shown that subject knowledge alone is not sufficient to produce an effective teaching assistant (Schulman & Shulman, 2004).

Although there is no single blueprint for effective teaching assistant training, and in fact, it is not entirely clear which specific professional development practices are most beneficial to teaching assistants, professional development programs with the greatest impact commonly include content directly related to the course being taught, active learning strategies, collaboration, expert support, feedback, and opportunities for reflection (Avalos, 2011; Kurdziel & Libarkin, 2003). Research also indicates that GTA trainings in particular should involve the modeling of best practices in the classroom, the opportunity for GTAs to practice new methodologies and reflect on their own teaching, and the observation of their teaching by a faculty and/or peer mentor combined with the provision of feedback throughout the entire course—not just at the end (Wheeler et al., 2017). In fact, graduate students frequently note that mentoring is far more beneficial than are campus-wide seminars and departmental trainings (Jones, 1993). Faculty in the Chemistry Department at Purdue University in the United States have developed an exemplary model for peer mentoring during GTA training and development (see text box below).

## Peer Mentoring Approach for Chemistry Teaching Assistants at Purdue University

A recent study by Lang and colleagues (2020) illustrated the value of training and mentoring graduate students through peer observations. In particular, GTAs in training underwent a rigorous observation program designed to facilitate reflection on their own practices while being supported by a more experienced GTA. Trainees were placed into small groups and were provided with one more experienced teaching assistant mentor. Over the eight-week session, they observed and were observed by other trainees in their group, were observed by their more experienced GTA mentor, and participated in a focus group to debrief their observations and experiences (Lang et al., 2020). In a follow-up survey, participants indicated that all of the observational activities were primarily of “great help” or “much help” (Lang et al., 2020). The experienced GTAs also noted that they enjoyed their mentorship roles and felt that they also provided them with important skills they could use in the future.

Other universities have developed a handbook for teaching assistants that is designed to complement the trainings students are required to undergo. Such handbooks commonly include descriptions of and expectations for the various types of teaching assistant roles, a discussion of teaching in diverse classrooms, preparing for the first day of class, preparing engaging lessons, managing classrooms, and using technology. They may also include specific policies or resources that are relevant to the GTA and their students.

The Michael V. Drake Institute for Teaching and Learning at Ohio State University in the United States has developed a series of useful training opportunities and resources for GTAs that are designed to enhance their teaching quality and experience. We highlight in the box below some of these training resources. Note that while the first three resources are for GTAs, the remaining three are for both faculty and graduate students.

Exhibit 25: Examples of training programs for graduate teaching assistants

TRAINING OR RESOURCE	DESCRIPTION
Graduate Teaching Orientation	All graduate students who are new to teaching participate in a series of workshops in the fall before classes begin. Workshops are led <b>by experienced and award-winning GTAs</b> . Topics covered include cultivating your teaching identity, knowing your students, understanding your teaching context and role, setting student expectations, the relationship between teaching and learning, obtaining and using feedback on teaching, and how to prepare for your first day of class.  <a href="https://drakeinstitute.osu.edu/graduate-students/graduate-teaching-orientation">https://drakeinstitute.osu.edu/graduate-students/graduate-teaching-orientation</a>

TRAINING OR RESOURCE	DESCRIPTION
GTA Toolkit	<p>A series of workshops offered throughout the year, led <b>by graduate students for graduate students</b>. Workshops cover topics that reinforce and deepen graduate students' understanding of teaching and learning strategies (workshop examples: creating an inclusive learning environment, eliciting student feedback, beginning steps of course design, facilitating effective discussions, creating a teaching portfolio).</p> <p><a href="https://drakeinstitute.osu.edu/gtas/gta-toolkit">https://drakeinstitute.osu.edu/gtas/gta-toolkit</a></p>
Communities of Practice	<p>Graduate students together with Institute staff share evidence-based instructional strategies aimed at improving teaching practice.</p>
Teaching@OhioState	<p>A five-module online course on all major aspects of teaching at OSU.</p> <p><a href="https://drakeinstitute.osu.edu/instructional-support/instructional-redesign/teaching-support-program/teachingohio-state-and-reading">https://drakeinstitute.osu.edu/instructional-support/instructional-redesign/teaching-support-program/teachingohio-state-and-reading</a></p>
Course Design Institutes	<p>Provide participants with tools and collegial support to design or redesign an existing or new course.</p> <p><a href="https://drakeinstitute.osu.edu/professional-learning/course-design-institute">https://drakeinstitute.osu.edu/professional-learning/course-design-institute</a></p>
Teaching Endorsements	<p>Credentials provided by Institute to identify and recognize GTAs and faculty who participate in professional learning opportunities to improve their teaching. For graduate students, endorsements appear on graduate student transcripts. As a part of the endorsement process, GTAs document their teaching in a teaching portfolio that is particularly useful for the job market.</p> <p><a href="https://drakeinstitute.osu.edu/instructional-support/teaching-endorsements">https://drakeinstitute.osu.edu/instructional-support/teaching-endorsements</a></p>

UTAs should be mentored by a GTA for the course—or, if there is no GTA, then by then faculty—and they should be trained by graduate students or faculty on rubrics for grading.

## EVALUATING TEACHING ASSISTANTS

As noted earlier, an essential component of teaching assistant training is regular evaluation. These evaluations should be ongoing (i.e., throughout the entire semester) and should include both self-reflection on the part of the teaching assistant as well as assessments made by students, peers, and faculty. GTAs might use the *Teaching Practices Inventory* (Wieman & Gilbert, 2014) or an adaptation of the measure to reflect on their own teaching practices and identify effective practices they are not using

regularly. Another commonly used self-reflection activity is journaling, either open-ended or a response to a prompt provided by a mentor (Ruder & Stanford, 2018).

Student evaluations are another common approach to assessing GTAs. Although feedback from students is not always useful, research has demonstrated that overall, students provide valuable information about GTAs teaching practices (Benton & Ryalls, 2016). The most common approach to student feedback is administering a survey at the end of the semester. Surveys can be quantitative (e.g., rating various aspects of the GTA's practices on a 1 to 5 scale) or qualitative (e.g., open-ended opportunities for students to provide more detailed feedback on specific aspects of the course, like readings or activities). Mid-semester evaluations can also be used to provide GTAs with feedback before the course ends. These are commonly shorter surveys focused on what is going well and what needs improvement. An alternative approach employs a common active-learning strategy in which students are asked to take one minute to write the most important points covered in class to date or the most confusing points to date (Angelo & Cross, 1993). This provides real-time feedback on how effectively GTAs are conveying critical concepts and allows for the improvement of practice before the end of the class.

Peers and faculty are also able to provide feedback to GTAs in a variety of ways. The most common approach is written or verbal feedback following an observation of the graduate student's teaching or laboratory session. Another related approach is written or verbal feedback on the GTA's course materials (e.g., syllabus, clarity of assignments, exams, etc.).

Regardless of who is conducting the evaluation (and multiple perspectives are strongly encouraged), both formal and informal evaluation approaches should be used. Formal approaches typically evaluate teaching efficacy as it relates to specific course objectives or course syllabus while informal approaches commonly involve observations (Benton & Young, 2018). As the evaluation of GTAs by peers and faculty becomes more commonplace, the culture around faculty evaluations may also shift.

## **RESOURCES NEEDED TO SUPPORT TEACHING ASSISTANTS**

To achieve these recommendations, several resources will be needed. For GTAs, this will include a small stipend, a faculty mentor, instructional supplies, meeting space for meeting with students outside of their section, computers, printers, and a standardized syllabus to facilitate consistency across sections and teaching assistants. For UTAs, this will include hourly stipends or service-learning credit, a faculty or GTA mentor, and instructional supplies.

## **ACTIVE LEARNING**

Active learning is any teaching method that requires the engagement of students in the learning process through activities or experiences designed to construct knowledge and understanding. Active learning is learner-centered rather than professor-centered and thus requires more than simply listening. The focus of active learning is on developing students' skills rather than just on transmitting information, although the latter clearly occurs (Bonwell & Eison, 1991). Students are required to "do and think" in an effort to enhance critical thinking. Active-learning can occur in any discipline, independently or in groups, through writing, talking, and reflecting. In a meta-analysis of over 225 studies, Freeman and colleagues (2014) found that students in traditional lectures were 1.5 times more likely to fail than were students in active learning courses.

Active learning strategies can range from relatively simple activities to quite complex activities (some of which are described below) (Bonwell & Eison, 1991; Carr, Palmer, & Hagel, 2015; Prince, 2004) and



commonly encompass approaches like cooperative learning, flipped classrooms, project-based learning, and experiential or service learning. General active learning strategies tend to be easier to implement for professors who are used to lecturing while strategies like cooperative learning and flipped classrooms require more advance planning and often take more class time (Keyser, 2000). In the exhibit below, we provide some sample activities that can be used to replace (or in some cases supplement) traditional lectures.

Exhibit 26: Examples of active learning strategies

STRATEGY	DESCRIPTION
Concept Maps	<p>Independently or in a group, students are asked to develop a visual representation of the relationships between core concepts of a topic. Concept maps are intended to help students integrate new knowledge (e.g., that learned from the readings or in lecture) with existing knowledge (e.g., could be prior knowledge or could be knowledge from an earlier lecture or reading from class) and can take the form of charts, flowcharts, Venn Diagrams, timelines, etc. In general, concepts are placed in circles or nodes and relationships are marked by arrows or lines; in this way, students are required to think critically about a topic so that they can adequately represent their understanding of that topic (Nesbit &amp; Adesope, 2006). Concept maps are an excellent group activity because they require students to actively process and discuss material as they construct their maps. Research demonstrates that students who use concept maps tend to retain knowledge longer and are better able to transfer that knowledge to other situations than their peers who do not use concept maps (Nesbit &amp; Adesope, 2006).</p> <p><b>Primary soft skills built:</b> Critical thinking, cooperation, communication, and to a lesser extent, interpersonal skills.</p>
Content, Form and Function Outlines	<p>In groups, students are given a document (e.g., an article, essay, poem, or graph) and are asked to carefully analyze the document for the content (i.e., “what”), form (i.e., how), and function (i.e., why). One option for this activity is to have all groups analyze the same document and then share their analyses, thereby demonstrating various interpretations of the same document. Another approach is to have groups analyze different documents that reflect various elements of a “problem”; groups then come back together to share their analyses of the components, thereby creating a shared understanding of the whole “problem.”</p> <p><b>Primary soft skills built:</b> Critical thinking, cooperation, communication, and to a lesser extent, interpersonal skills.</p>

STRATEGY	DESCRIPTION
Strips of Paper Sequencing	<p>Either independently or in groups, students are given the steps in a process or elements of a problem on separate strips of paper. The strips of paper should not be in order when handed out. Ask the students to put the strips of paper together in the proper sequence or organize them into a logical argument.</p> <p><b>Primary soft skills built:</b> Critical thinking, self-motivation, and cooperation if the work is done in groups.</p>
Case-based Learning	<p>In groups, students are given a case or problem (e.g., could be a legal case or it could be a critical problem in the field) and asked to think about what they already know that is relevant to the case, what else they need to know to understand the case, and what impact their decisions or conclusions about the case might have on the case and the broader community. After students have had a chance to discuss these prompts, bring the class back together and have groups share their responses; additional activities can include full class discussions of similarities and differences in responses.</p> <p><b>Primary soft skills built:</b> Critical thinking, cooperation, communication, self-confidence</p>
Quick Writes	<p>Independently, faculty provide students with a topic or prompt based on material from lecture or readings for class. Students are given 5 minutes to write their thoughts or reflections on the topic, thereby actively engaging with the material (Green, Smith, &amp; Brown, 2007). Quick writes can be introduced at any point during a class and can be readily implemented with large classes. Quick writes can serve as a means to practice writing (Ward, 2013) or can be shared orally to enhance public speaking skills (Cleland, Rillero, &amp; Zambo, 2003). Quick writes can also be turned in as a formative assessment or can be used as an attendance check.</p> <p><b>Primary soft skills built:</b> Critical thinking, self-confidence, time management, and self-motivation</p>
Muddiest Point Reflections	<p>Independently, students are asked to write down the most confusing point from in-class or online lecture or readings. These reflections should occur during the last few minutes of class. At the beginning of the semester, faculty should explain the purpose of these reflection and explain that their input will impact the class. These reflections provide faculty with valuable information about a point that might not have been made particularly clearly and help students critically evaluate what they understood from the lesson or readings and what they did not. Ideally, faculty would address some of these points during a subsequent class or online through a discussion board or pre-recorded session to ensure comprehension and facilitate greater student learning overall.</p> <p><b>Primary soft skills built:</b> Critical thinking, self-confidence, and self-motivation</p>

## Cooperative Learning/Teaching Strategies

Cooperative learning is a type of active learning in which students work in pre-defined groups to accomplish essential learning tasks. Core content can be introduced either inside or outside of the classroom through text or through online, live, or pre-recorded lectures. The most effective cooperative learning strategies incorporate common or group goals with individual accountability (Slavin, 1991). In the exhibit below, we provide examples of cooperative learning strategies that can be incorporated into lectures with large or small classes; these strategies do not typically replace lecture but are integrated into a lecture-based classes.

Exhibit 27: Examples of Cooperative Learning Strategies for lecture classes

STRATEGY	DESCRIPTION
<b>Group-based</b>	
Pausing in lecture	<p>Faculty make statements or pose questions and pause for students to absorb the information or respond to questions. This strategy requires faculty to be comfortable with silence for a period of time but provides students with the opportunity to process information in real-time rather than after the lecture is over. Breaking lectures up with activities like this helps maintain student engagement (Bligh, 2000).</p> <p><b>Primary skills built:</b> Critical thinking, communication</p>
Facilitated whole-class discussions	<p>Faculty guide in-class discussions around a specific topic or question and help students come to an understanding of the topic or content. Facilitated discussions are most effective when faculty have a clear goal or objective, students understand the expectations and rules for participation in the discussion, the discussion remains focused on the question or topic, and have a clear beginning and end (Centre for Teaching Excellence). Discussions work well in large and small groups and interspersed with lecture (Huxham, 2005) or as stand-alone sections, potentially facilitated by teaching assistants.</p> <p><b>Primary skills built:</b> Cooperation, critical thinking, communication, self-confidence, interpersonal skills</p>
Numbered students together	<p>Students are broken into smaller groups and each member is given a unique number. Groups discuss a topic provided by the faculty member and then the class comes back together as a full group. The faculty calls on all students with the number 1 to share their discussion points; then all students with the number 2, etc. This activity illustrates not only how knowledge generation is collaborative but also how different perspectives can enhance our understanding of a single concept or topic.</p> <p><b>Primary skills built:</b> Cooperation, critical thinking, communication, self-confidence, interpersonal skills</p>

STRATEGY	DESCRIPTION
Jigsaws	<p>Jigsaws promote cooperation among students by making individuals dependent on one another in pursuit of a common goal (Aronson et al., 1978). Students are broken into interdependent groups and each group specializes in one aspect of a topic—e.g., climate change impacts on the ocean, climate change impacts on forests, etc. Groups discuss or research their topic and then the class comes back together. “Expert” groups teach one another about their specialized topic, in essence putting the pieces of the puzzle together (e.g., resulting in a comprehensive understanding of climate change).</p> <p><b>Primary skills built:</b> Cooperation, critical thinking, communication, self-confidence, interpersonal skills; to a lesser extent, time management</p>
Carousels	<p>Several numbered stations are located throughout the classroom. Each station includes a piece of paper with a question at the top. Students are divided into the same number of groups as stations. They start at 1 station, respond to the question in 1-2 minutes and move on. At each new station, students must add new ideas or build off existing ideas; they cannot repeat ideas that have already been added to the stations. This activity requires that students think critically about what they know or have learned so that they can add to the classes’ shared understanding of the topic. Carousels are best completed in a classroom where there is sufficient room for all students to move around the classroom.</p> <p><b>Primary skills built:</b> Cooperation, critical thinking, communication, self-confidence, interpersonal skills</p>
<b>Individual + Group-based</b>	
Think/Write/pair (or group) share	<p>Faculty provide students with a prompt or question and give students approximately one to <i>think</i> through their responses to the prompt; students are then given one minute to <i>write</i> their responses down before turning to a peer (or peer group) to <i>share</i> and discuss their responses. Sharing could also be done with the entire class rather than in small groups; in this case the faculty may only call on a few individuals to share their responses. One of the benefits of the think/write/share approach is that it provides students an opportunity to practice their responses in a relatively low-risk setting before sharing with the entire class, thereby fostering greater self-confidence and encouraging participation (Barkley et al., 2014).</p> <p><b>Primary skills built:</b> Critical thinking, self-confidence, self-motivation, communication; to a lesser extent, interpersonal skills</p>
Note check	<p>Students share their notes with each other and/or with a GTA to ensure accuracy, identify gaps, and highlight areas of confusion. This activity can also help students improve their note-taking skills as well as their writing and organization. This is a particularly useful strategy for larger classes because it typically reduces the amount of time needed to address individual questions (because many are resolved in this comparison or answered by a peer) and is less burdensome on faculty (e.g., less time preparing additional content to address questions).</p> <p><b>Primary skills built:</b> A range of study skills (e.g., note-taking, organization), critical thinking, self-confidence, self-motivation</p>

## BROADER ACTIVE LEARNING APPROACHES

In addition to class-specific activities that can be accomplished during a single class period—or a portion of the class—there are also numerous active learning approaches that involve a restructuring of the way the class is delivered or that require a much longer time commitment to complete. These include flipped classrooms, project-based learning, and experiential learning. We describe each of these in more detail below.

### Flipped Classroom

In a flipped classroom, students are introduced to core content outside of the classroom through recorded lectures or videos and then practice the content through interaction, teacher-guided learning activities, assignments, labs, and tests in the classroom. Flipped classrooms include a mix of direct instruction and learner-centered, active instruction that allows students to apply concepts and engage in creative problem-solving. Other activities in the flipped classroom include, but are not limited to, guided or unguided skill practice, face-to-face discussions with peers, debates, presentations, lab experiments, and peer assessment and review. The flipped classroom is thought to make it easier for students who have missed class to keep up because they watch lectures outside of the classroom as well as for addressing gaps or misunderstandings in course content through activities in the classroom (Sams & Bergmann, 2012). Bergmann, Overmeyer, and Willie (2011) highlighted several advantages of the flipped classroom for college students, including the development of life-long learners, increased student engagement with the material, and increased interactions between students and faculty (something both faculty and student participants in the FGDs noted was important for student success). A study at King Saud University in Saudi Arabia, Elmaadaway (2018) found that students in a flipped classroom were more active and more behaviorally and emotionally engaged than those in the control classrooms. The flipped classroom model has also been used in a creativity training course at Mohammed I University but has not yet been evaluated.

Exhibit 28: Example of a flipped classroom for a humanities course with GTAs supporting small group activities inside the classroom

**EXAMPLE TOPIC:** How can we use digital media effectively to strengthen civic engagement?

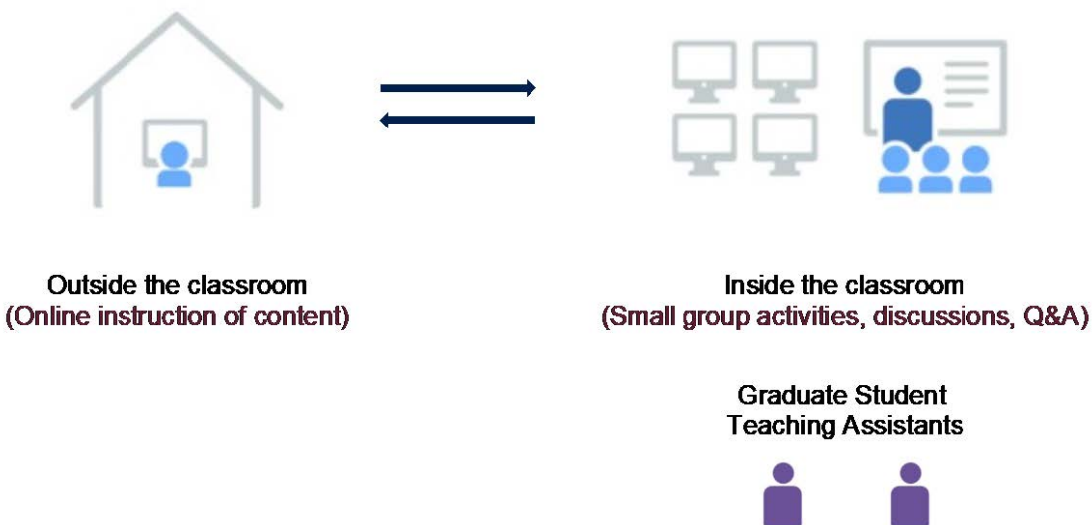
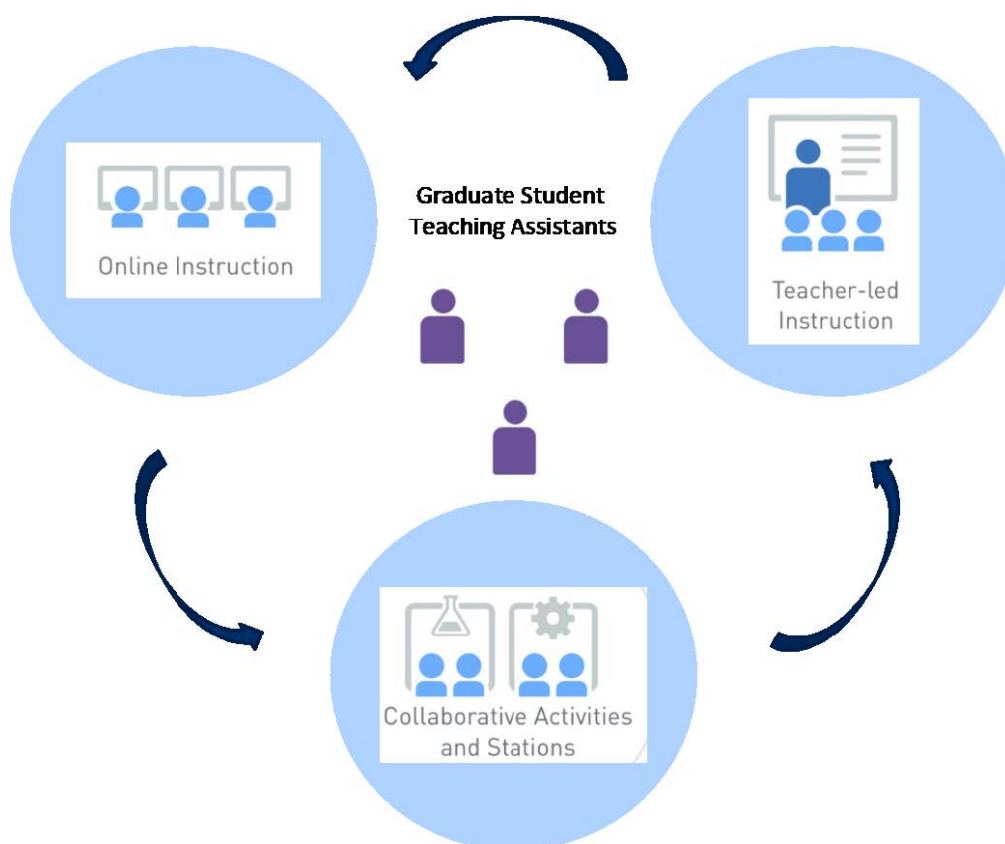


Exhibit 29: Example of a flipped classroom for a science course with GTAs supporting small group collaborative activities and stations



### Project-based learning:

Project-based learning (PBL) is a type of active learning in which students build deep knowledge around a topic through active exploration of real-world, personally meaningful challenges or problems. PBL projects serve as the means by which critical knowledge and skills are developed throughout the project, as opposed to short-term projects where students illustrate their understanding of a topic at the end of the project (Dias & Brantley-Dias, 2017; Larmer et al., 2015). Projects typically occur over an extended period of time (e.g., from as little as a week to as long as an entire semester, depending on the purpose of the activity and the extent of the task), involve multiple skills, and commonly culminate in a public product (e.g., a brief, paper, or presentation) for an audience outside of the classroom (e.g., other students and faculty, the community, etc.). According to the PBLWorks [website](#), there are seven critical elements of an effective project-based learning program: a challenge or problem to be solved, sustained inquiry, authenticity (i.e., real-world context), student choice, and voice (students have the autonomy to make choices about the project and express their ideas), reflection, critique and revision, and a public product (Larmer et al., 2015).

*Primary skills built:* Critical thinking, self-confidence, self-motivation, communication, cooperation, interpersonal skills, time management.

## Experiential Learning:

Similar to PBL, experiential learning or service learning is the process of learning through experience. In contrast to PBL, however, experiential learning places a much greater focus on learning through reflection. Common experiential learning activities include, but are not limited to, internships, field experiences or exercises, study abroad, service learning, undergraduate research experiences, and studio or art performances. According to Kolb (1984), the experiential learning process involves the integration of knowledge (i.e., the concepts or knowledge acquired through formal learning and experience), activity (i.e., the application of that knowledge to a real-world setting), and reflection (the synthesis of knowledge and activity to create new knowledge). In the case study below, we provide an example of an experiential learning program in the United States that is part of their foundation year curriculum. The program allows students to select between one of many experiential learning opportunities to fulfill the Experiential Learning Requirement that is expected of all students, regardless of discipline. Research suggests that experiential learning programs improve recruitment and retention, particularly among under-served populations, and are associated with a range of positive student outcomes, including higher order thinking (Coker et al., 2017; Jin et al., 2019). For additional information on experiential learning programs, see the case study on Elon University under the foundation year section above (Exhibit 11).

In Exhibit 28 below, we provide examples of some of the most common experiential learning approaches. As noted above, however, this list is by no means exhaustive.

Exhibit 30: Common forms of experiential learning

TYPE	DESCRIPTION	EXAMPLES IN THE MENA REGION
Internships	Internships are typically credit-bearing activities in a student’s field of interest that is not linked directly with a theoretical course. Internships typically provide students with an opportunity to explore career options, support professional development, and allow for the integration of theory and practice. It is typically supervised by an employer who is not a faculty member.	
Service Learning – On campus or in the community	Service learning is a structured teaching and learning method where students apply academic learning to meaningful service to the community. The location of a service-learning project can be within the university (e.g., attached to co-curricular activities, peer mentoring, peer tutoring) or in the broader community (e.g., schools, women-led businesses or programs, teaching English). Service-learning opportunities are commonly either attached to a course or are a course in and of themselves. Research has demonstrated that service learning is associated with greater attendance and lower drop-out rates (Yue & Hart, 2017) as well as higher academic and civic engagement (Al-Aama, 2005; Tyrn, 2017).	<p>Al Akhawayn University has developed a Center for Community Involvement that includes training seminars for undergraduates and a service learning for civic engagement program:</p> <p><a href="http://www.aui.ma/en/communityinvolvement.html">http://www.aui.ma/en/communityinvolvement.html</a></p> <p><a href="http://www.aui.ma/en/communityservice.html">http://www.aui.ma/en/communityservice.html</a></p> <p><a href="http://www.aui.ma/en/media-room/news/al-akhawayn-news/1477-service-learning-for-civic-engagement.html">http://www.aui.ma/en/media-room/news/al-akhawayn-news/1477-service-learning-for-civic-engagement.html</a></p>



TYPE	DESCRIPTION	EXAMPLES IN THE MENA REGION
Undergraduate Research Experience	Undergraduate research experiences help students develop and strengthen their understanding of research and research methods while furthering their knowledge around a particular topic or phenomenon in their field of interest. Undergraduate research opportunities can be student or faculty initiated and the project can be ongoing or something entirely new.	Qatar University: <a href="http://www.qu.edu.qa/static_file/qu/research/documents/research-magazine-special-issue-en.pdf">http://www.qu.edu.qa/static_file/qu/research/documents/research-magazine-special-issue-en.pdf</a>
Study Abroad	Study abroad programs are commonly semester- or year-long programs (although they can also be summer programs) in which a student studies in another country. These programs serve to expose students to other cultures, languages, and worldviews and have been found to impact intra- and interpersonal skills over the long-term (Maddux et al., 2020). Study abroad programs typically reinforce knowledge learned in the classroom and require students apply that knowledge in a novel context. Research suggests that due to globalization, employers increasingly value candidates with international experience and thus, undergraduate study abroad programs also serve to prepare youth for the workforce (Maddux et al., 2014). Moreover, students who study abroad are more likely to graduate than those who do not (Sutton & Rubin, 2004).	

## FACULTY CAPACITY BUILDING

In this section, we provide general recommendations for capacity building in several key areas of the report. Broadly, however, the DEEP team recommends that training materials and modules be developed for the entire country (rather than having each university develop their own set of resources). Further, supports for faculty should be developed at the university, school, and department level and as faculty become more experienced with these approaches, we recommend that veteran faculty serve as mentors for novice faculty on these practices. In addition to training existing faculty, a process which will likely be implemented over an extensive period of time, newly hired faculty should complete their training either just before beginning their first semester or over the course of the first year.

### USING AND MENTORING TEACHING ASSISTANTS

Given the relatively infrequent use of teaching assistants in Moroccan universities, the DEEP team noted a need to build faculty capacity around working with and mentoring teaching assistants. Although there are relatively few formal training programs designed to help faculty make effective use of their teaching assistants, it may be useful for new faculty (and faculty who are new to mentoring a teaching assistant) to undergo training similar to that offered to teaching assistants. This could be delivered as a separate

training from the teaching assistants or, perhaps more beneficially, faculty and teaching assistants could participate in the same training, thereby ensuring that they are all receiving the same information and modeling the mentoring structure described above. The Drake Institute for Teaching and Learning at Ohio State University (described in more detail earlier; <https://drakeinstitute.osu.edu/>) offers an extensive number of training resources for faculty and teaching assistants that are designed to improve the quality of instruction at all levels. Similarly, the Derek Bok Center for Teaching and Learning at Harvard University (<https://bokcenter.harvard.edu/graduate-students>) provides resources for supporting faculty and teaching assistants (as well as departments) in improving their teaching strategies. Universities may also want to consider developing a new faculty orientation that incorporates teaching assistant training so that faculty and TAs are on the same page from the start; if new faculty orientations already exist, the training could be added into the existing program.

Before classes begin, faculty should plan to discuss roles of teaching assistants and should clearly establish expectations for teaching assistants. This is especially important because teaching assistants are also students and thus need to balance their TA responsibilities with their academic responsibilities. Knowing what to expect and when will help foster essential time management and organization skills.

Throughout the semester (or the TA appointment if it is longer than one semester), faculty mentors should plan to establish a weekly meeting with their teaching assistant/s to discuss upcoming content and activities for class issues that may have arisen in the previous week, any grading that is required during the week, and any other issues the teaching assistants wish to raise. Faculty will want to confirm with teaching assistants that they are comfortable with the course materials for the week. They will also want to make sure teaching assistants have what they need to complete activities and that they are comfortable with the activity. One approach to ensuring this is to carry out the activity in the weekly meeting; this works especially well when there are a large number of teaching assistants because inevitably a challenge arises and all teaching assistants are able to witness the solution in case it arises in their section.

## **USING AND DEVELOPING ACTIVE LEARNING PEDAGOGIES**

In general, active learning strategies are relatively easy to implement in the classroom and require very little training. Nevertheless, successful implementation of active learning strategies rests on several factors.

First, faculty need to choose meaningful activities that appropriately reflect the course material for that day and address student needs. For example, faculty should consider their learning objectives (i.e., what they want students to learn from the class session, what some of the common misconceptions are around the class material, and what kinds of activities can help reinforce student learning through practice. In addition, faculty should consider what, if any, products are to be generated from the activity (e.g., quick-write essays or concept maps).

Second, faculty should consider *why* they are asking students to engage in a specific activity and then before the activity begins, explain this to the students. This explanation will be particularly important in the early years of the BA reform, when students are not used to active learning approaches.

Third, faculty will want to think about strategies to keep students on task during class activities. Active learning approaches are more effective when students are held accountable for their engagement in the activity. Letting students know they will be sharing their group discussions with the class encourages students to come up with talking points; having students turn in their quick-writes or most challenging

point notes also holds students accountable for their participation. In classrooms where clicker technology (or something similar) is available, questions posed at various times during lecture can also keep students engaged. These approaches can also provide students with feedback on their learning.

Fourth, faculty should consider how they want to wrap up the activities. Having students share their group findings is a good way to highlight different (and similar) perspectives on a topic but faculty should also offer a coherent summary following these discussions. It can also help to highlight misconceptions or misunderstandings among students. Faculty who gather students' quick-writes or unclear points activity at the end of class may choose to respond to some of the points or issues raised in the next class; this approach signals to students that their work on these activities is valued and that their ideas and questions are also valued.

Finally, faculty will want to consider the logistics of carrying out their activities. For example, what supplies or resources are needed to complete the activity? Is the classroom set up so that students can work in groups? Small group activities can still occur in large classrooms where seats are fixed to the floor but it may require some students to move closer to peers to make this happen. Can students move around the classroom to stations?

Several U.S.-based centers for teaching and learning provide excellent resources for implementing active learning strategies, including the [Harvard Bok Center for Teaching and Learning](#), the [Vanderbilt Center for Teaching](#), and [the New York University Center for the Advancement of Teaching](#). In addition, a faculty member at Boise State University (L. Huglin) has compiled a [document](#) describing strategies for implementing active learning approaches in large classes.

## ENGLISH LANGUAGE INSTRUCTION

Several universities and educational organizations provide excellent resources and professional development opportunities for faculty in English language instruction.

It is important for faculty to receive support and modeling of best practices in English language teaching and learning. Ongoing, sustained professional development with follow-up coaching is the most effective approach to global capacity building. In order to transform practice, faculty need opportunities to share, refine, and reflect on best practice with ongoing mentoring. One way to encourage such PD is through global networking with universities with specialization in English language teaching.

For example, Boston University School of Education partnered with the Ministry of Education in China for a multiple year project to help support global capacity building for K12 teachers and university faculty who teach EMI, developed a TEFL (Teaching English as Foreign Language course) by offering an intensive, two-week teacher training program that includes School of Education faculty and educators from five school districts in Beijing. The program was offered multiple times a year so that hundreds of faculty and teachers were able to receive a non-credit bearing university certificate in English Language Teaching and Learning. Topics included promoting collaborative learning, integrating content and language objectives, project-based learning, active learning techniques for developing the four domains of language, authentic assessment, etc. The purpose of the initiative was to build capacity for the development and utilization of best practices in the area of EMI and TEFL in the district.

In another example, Lesley University's Institute for English Language Programs Beyond Borders and Global Capacity Building for Educators partnered with ISTEAH university in Haiti to provide direct support to faculty on best practices in teaching and learning via a five-week intensive summer teacher

assistant training institute. In this model, doctoral students from the universities in the region were provided with a PD opportunity to refine their language and pedagogy skills in a hybrid model, which included both in-person and online trainings. In addition, this institute has partnered with five countries in the Caribbean Region to provide five one-week intensive teacher training institutes on 21st century teaching and learning themes, such as Teaching for Linguistics and Neurodiversity. By using this blended approach up to 100 participants can join each week-long training. This is an example of how to leverage technology.

E-learning PD opportunities with universities and companies are also a useful strategy for providing ongoing training. For instance, the Harvard Derek Bok Center for Teaching and Learning offers eight-week, online short courses on teaching and learning in higher education that are offered to faculty and doctoral students worldwide. This online model of PD could be a powerful tool for promoting English language instruction. Innovative educational consulting companies in Europe like CELEI, who have worked with the School for International Training, also provide online PD workshops for teachers on best practice for language teaching.

## **SOFT SKILL DEVELOPMENT**

Faculty indicated a need for training around not just what soft skills are but how to teach them before they would be comfortable implementing the recommended foundation year courses. To accomplish this, the DEEP team recommends that a series of pre-recorded training modules be developed. These training modules should be required of all current and incoming faculty before they begin teaching in the fall.

The first module should provide an overview of what soft skills are and describe their value for university (and life) success. This module might also offer some general approaches and practices to facilitate soft skill development in the classroom (e.g., creating a respectful and supportive learning environment or giving students choices, when possible, to enhance motivation and active learning).

Modules 2 through 9 should focus on each of the skills prioritized by the MOE, faculty, and students. These include: interpersonal skills, cooperation, critical thinking, communication, time management, self-motivation, self-confidence, and active learning. These modules can be similar to the soft skills modules that have already been developed for students but should contain some additional information. Each module should provide a clear explanation of what the skill is and offer evidence of its specific value for teaching and learning. Next, modules should include an illustration of how the skill can be used or practiced in the classroom. Finally, modules should offer examples of how each skill can be taught or enhanced through classroom practice. Offering a brief demonstration of an activity or task that will enhance a specific skill can provide faculty with concrete steps of how they can do the same in their classroom. Although the Taqaddam Program was developed to target secondary educators, many of their resources and programs could readily be adapted to postsecondary educators. Similarly, the Career Center program may offer effective strategies for supporting faculty in teaching these skills.

Following these training modules, when faculty are integrating soft skill development into their classes, the DEEP team recommends regular use of active learning pedagogy that supports at least one of the prioritized skills (see Active Learning section of this document for additional guidance) and that faculty regularly model the skills in their classes and through interactions with students, teaching assistants, and other faculty.

## IMPLEMENTING E-LEARNING

Universities should provide training in the pedagogy and technology of e-learning. For faculty, a basic workshop should be offered on pedagogical aspects of e-learning, ways that e-learning can be used to supplement traditional teaching methods in the classroom, and use of a learning management system (LMS). A second workshop for faculty, targeting only those who will be teaching online, could emphasize online learning theory and empirical research on the effectiveness of various online methods and approaches for online instruction. In addition, short seminars or online modules could be offered on both technical skills (e.g., how to record a video) and teaching tools (how to use social media or wikis) that are used in e-learning.

Many students arrive at the university already well versed in computer technology. However, for those who are not computer literate, a training session on computer basics should be provided at the beginning of the Foundation Year. In addition, short in-person training sessions or online modules should be provided to introduce students to the LMS being used by their university.

## ASSESSMENT APPROACH UNDER BA REFORM

As noted in the introduction, the BA reform includes a “*tronc commun*,” a core curriculum, to be implemented by all universities in the first two years of the BA program in an effort to establish equivalency, and therefore more pathways, between and within departments and universities. The core curriculum serves as the framework for graduating students’ basic competencies, skills, and knowledge. It introduces more flexibility for students when choosing a specialization, more coherence in study programs across departments and universities, and harmonizes the profile of graduating students (CSEFRS, 2015<sup>160</sup>). The core curriculum or “*tronc commun*” proposed in the BA reform includes pre-defined modules in the area of study, general and specialized elective modules, foreign language modules, and soft skill modules (CSEFRS, 2015<sup>161</sup>). The “Assessment of the Module” in the module description template includes two sections: (1) assessment methods, including the choice of final end-of-semester exam, continuous assessment, and small group end-of-semester projects, and (2) module grade which requests information on the weight factors of all assessment tasks. Despite guidelines included in the National Education Standards for the BA program and in the module description template, there is important variability regarding knowledge assessment across the modules reviewed by the DEEP Team. The modules reviewed include a choice of assessment methods, though many do not provide the weight factors for all assessment tasks, some only consider the final end-of-semester exam for the final grade, while others only note the passing grade. This variability suggests that the pedagogical teams responsible for the development of modules within the different university departments have different interpretations or understanding of knowledge assessment guidelines as presented in the National Education Standards for the BA program. In addition, if students do not know the weight or importance of each assessment task, they will not take it seriously and it will not influence their performance.

The lack of coherence between the assessment methods and the module scoring, as well as a lack of clear assessment criteria, “need to be clear, explicit, framed in language that is meaningful to staff and students” (Brown, 2005). These gaps may lead to professors implementing the same modules vastly differently and using varied criteria when measuring student mastery, thereby undermining the reform’s efforts at achieving greater coherence between study programs and graduating bachelor degree students.

It should also be noted that modules exhibited an inconsistent use of continuous assessments to determine students’ final mastery of a module. This may indicate that the module developers either do

not administer continuous assessments, place a higher value on assessments for summative purposes, or lack proper training on and experience with continuous assessment. It should also be noted that, although some modules list continuous assessment methods as a requirement, these assessments are not part of the final grade calculation. If an assessment is administered and given no weight, it is unlikely to have any influence on student learning. As Haouassia (2016)<sup>162</sup> points out, a major source of student dissatisfaction with universities in Morocco is in fact this lack of coherence between assessment methods used during the teaching of the module and the computation of students' final module grade. Student respondents felt that grades received did not always accurately reflect the students' performance and blamed "professors' poor evaluation of students during exams."

Exhibit 3 I: Examples of variability in module assessment guidelines

	<b>STUDY SKILLS - I</b>	<b>ANGLAIS - 3</b>	<b>CHANGEMENT CLIMATIQUE</b>	<b>GEOGRAPHIE DE LA POPULATION DANS LE MONDE</b>
<b>Assessment Methods</b>	<ul style="list-style-type: none"> <li>• End of semester final exam</li> <li>• Continuous assessment</li> </ul>	<ul style="list-style-type: none"> <li>• End of semester final exam</li> <li>• Continuous assessment</li> <li>• Group project</li> </ul>	<ul style="list-style-type: none"> <li>• End of semester final exam</li> <li>• Continuous assessment</li> </ul>	<ul style="list-style-type: none"> <li>• End of semester final exam</li> <li>• Continuous assessment <i>(Contrôle continu 50%, Contrôle final 50%)</i></li> </ul>
<b>Module Grade</b>	Module is graded out of 20, based on the final exam at the end of the semester	A grade of 10/20 is required to pass the module	<ul style="list-style-type: none"> <li>• End of semester final exam (70%)</li> <li>• Continuous assessment (30%)</li> </ul>	<ul style="list-style-type: none"> <li>• End of semester final exam (70%)</li> <li>• Continuous assessments (30%)</li> </ul>

## RECOMMENDATIONS FOR KNOWLEDGE ASSESSMENT

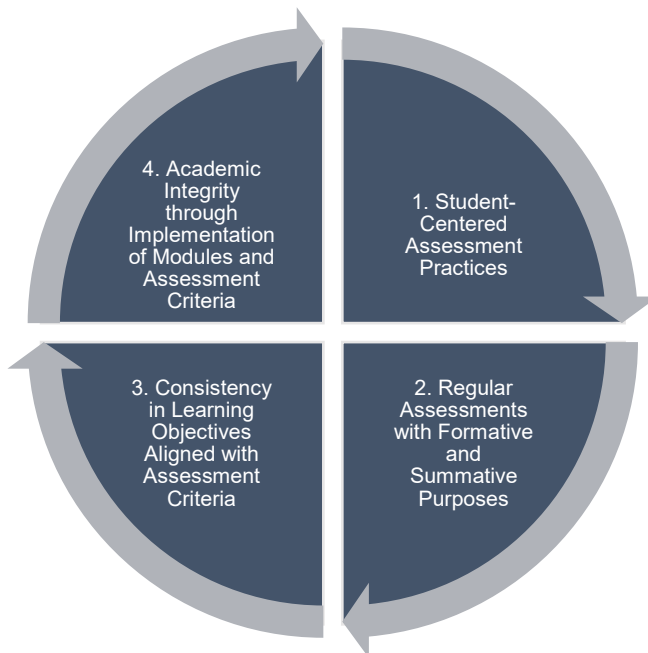
An effective knowledge assessment system in HEIs in Morocco that supports the BA reform’s efforts to improve outcomes, introduce more flexibility for students, and establish greater equivalency in study programs across departments and universities, should focus on four key elements (An effective knowledge assessment system in HEIs in Morocco that supports the BA reform’s efforts to improve outcomes, introduce more flexibility for students, and establish greater equivalency in study programs across departments and universities, should focus on four key elements (See Exhibit 32<sup>163</sup>):

1. **Student-centered** assessment practices
2. **Regular assessment** with formative and summative purposes
3. **Consistency** through detailed module descriptions that include well-defined learning objectives aligned with clear assessment criteria
4. **Academic integrity** through consistent implementation of modules and assessment criteria by professors

A balanced approach to assessment in HEIs in Morocco should include high quality, student-centered assessments that are used for formative purposes, i.e., to improve the learning process, and for summative purposes, i.e., to determine student mastery. However, as noted previously, professors rely heavily on assessments for summative purposes because of large class sizes and due to a lack of time and resources for assessments with formative purposes. Of equal importance to attain these goals is developing assessment literacy. Such assessment literacy would include supporting professors in developing appropriate assessments, helping students understand the assessment process, and establishing proficiency benchmarks by domain to determine the levels needed to engage with course content.

The use of continuous assessment for formative and summative purposes in HEIs in Morocco should be reinforced in the BA reform with a focus on the use of student-centered assessment practices that are appropriate for large classes. Group projects using scoring rubrics and peer-evaluation can save time and effort when assessing students’ achievement of learning outcomes. Providing student feedback is one of the most effective—and perhaps most misused—methods for strengthening learning (Rawlusk, 2018; Sambell, 2016; Boud & Molloy, 2013; Hernández, 2012; Brown, 2005). HEIs are beginning to view feedback as a two-way dialogue, between educator and student as well as dialogues among peer students. HEIs and their faculty are exploring how students can act on feedback to close the “feedback loop” (Rawlusk, 2018; Sambell, 2016). Effective feedback should clearly state how a student’s work was judged, lay out next steps, and most importantly, allow opportunities for the student to act. Time-saving strategies like “two-way fast feedback” and computer-assisted assessments can help generate feedback in large class sizes (Sambell, 2016; Bose & Rengel, 2009).

Exhibit 32: Key elements for effective assessment system in HEIs in Morocco





The CNPN requirement that all assigned tasks be graded and included in the calculation of students' final grade may inadvertently weaken the use of continuous assessment. Professors may assign fewer tasks to avoid spending additional time on assessment activities in large classes (Belhiah, 2020; FGD respondents). Clear assessment criteria that detail the type and frequency of graded tasks would clarify expectations for professors and students, and counter the perception that continuous assessment, with feedback to students, is overtaking instruction. Additionally, continuous assessment tasks should be integrated into lessons, instead of relegated to a period outside of instructional periods, and should be timed to provide sufficient remediation opportunities to students (Brown, 2005; Hernández, 2012). Continuous assessments should be integrated into the grading cycle, graded, and returned promptly. Regular and integrated continuous assessment practices which do not rely solely on tasks that are simply turned in could encourage attendance thereby addressing issues of chronic student absenteeism. Finally, assessment methods and criteria should be explicitly discussed with students at the beginning of every semester to encourage transparency and trust in the grading system.

### BEST PRACTICES: LEARNING-ORIENTED ASSESSMENT

A more useful approach to assessment may be to focus on assessments that help students learn (Rawlasyk, 2018; Hernández, 2012; Saifi et al., 2011). In other words, focus on what constitutes learning-oriented assessment (LOA) or *assessments as learning*.

LOA places less emphasis on the educator, and more on the ability of the learner to self-regulate—that is, to motivate themselves, manage their own learning, and pursue lifelong learning. As young adults already have some capacity to self-regulate, HEIs are well-positioned to further strengthen this skill (Bose & Rengel, 2009). HEIs can be slow to change, and efforts to reimagine assessments as learner-centered have generally been limited (Sambell, 2016; Duncan & Bushkirk-Cohen, 2011; Boud & Falchikov, 2007). Nonetheless, the shift to LOA is part of a larger rethinking of the relationship between educators and students (Sambell, 2016). As HEIs explore new ways of engaging students, they are considering how to give students more control over their learning.

PD for and support to professors are critical to the institutionalization of an effective assessment system in HEIs in Morocco. A comprehensive professional development program would provide the knowledge and skills needed for diversifying assessment practices, particularly for large classes (Coombe 2020; Boustane, 2020; Benzeha, 2017). Hiring teaching assistants or adjunct faculty could be of great help for professors. They could perform several duties, including class preparation, correction of papers and quizzes, and hold office hours to help students outside the classroom. The use of technology can also be beneficial in incorporating more assessment with formative purposes. LMS, such as Google and Moodle, provide many features where students can record speeches, submit timed writings, organize and present an ePortfolio, and invite peers to provide feedback.

Exhibit 33: Examples of assessment approaches

TYPE OF ASSESSMENT	DESCRIPTION	ASSESSOR	COMMENTS
Formative speaking assessments	Weekly/biweekly tasks in which students respond to a prompt or prompts within the LMS (recorded)	Student or TA	Using a rubric and allowing students to self-assess and TAs to confirm the rating would provide opportunities for practice, reflection, and feedback.

<b>TYPE OF ASSESSMENT</b>	<b>DESCRIPTION</b>	<b>ASSESSOR</b>	<b>COMMENTS</b>
Formative writing assessments	Weekly/biweekly tasks in which students respond to a prompt or prompts within the LMS or on a discussion board	Student or TA	Using a rubric and allowing students to self-assess and TAs to confirm the rating would provide opportunities for practice, reflection, and feedback.
Timed writing	Using an LMS or in-class, students can respond to prompts during a set tie period to increase fluency and provide practice	Student, peers, TA, professor	Using a rubric and allowing students to peer-assess, self-assess, and asking TAs to confirm the rating would provide opportunities for practice, reflection, and feedback.
Weekly m/c quizzes on LMS	Provide feedback on how students are doing	Developed by a course instructor or department	Could be graded as complete; auto grading with justifications for why some responses are correct and others are not to provide formative feedback and allow professors to understand what is and isn't working.
Papers	Students would submit 1 short paper mid-course for grading	TA	Develop a set of prompts to be graded by a large group of TAs and provide feedback on learning.
Unit exams	Multiple choice exams with 1-2 constructed responses at the end of each unit	Professors/units	At the end of each unit or every 3 weeks, there could be a two-day exam period. (Please still reserve 5 days at the end of the semester). This would incentivize ongoing assessment, regular class participation, and weight assessments evenly.

## BEST PRACTICES: PD AND SUPPORT TO PROFESSORS

Assessment 101 is offered annually to staff at Cornell University. The class reinforces student development theory and covers the necessities of developing a comprehensive assessment plan.

At North Carolina Agricultural and Technical State University, the vice chancellor created the full-time position of an assessment director to bring assessment to the forefront of department-specific planning efforts. The assessment director provides consultation and technical assistance to colleagues to help solve assessment-related challenges and supports their use of assessment results to modify programs and resolve questions or needs when planning assessments for the upcoming year.

From Morse, A. & Woods, K. (2019). *A Framework for Divisionwide Assessments of Student Learning and Institutional Effectiveness*. NASPA Policy and Practices Series. Issue No 5. Washington, DC.

## RECOMMENDATIONS FOR SOFT SKILLS AND STUDY SKILLS ASSESSMENT

“Examinations should not be organized regarding the teaching of these [soft skills or study skills] skills. The evaluation of students should be based on their aptitudes and not as cognitive contents that are read and memorized” (Faculty participant in FGD).

As with the assessment of any skill, it is critical to first determine the specific purpose of the soft skill assessment (e.g., to diagnose soft skill difficulties, make judgments about students’ soft skills, provide feedback on students’ soft skills, plan and conduct instruction, create a positive classroom environment). Identifying the purpose should begin with a clear definition of the skill or skills. Importantly, assessment of soft skills should be aligned with the development of specific soft skills goals, should incorporate adaptability and unpredictability, be performance-based, and have added value for teaching and learning (Binkley et al., 2010). Although there is no single “best practice” when it comes to soft skill assessment, there are numerous approaches that can effectively support the development of these skills over time, including both qualitative and quantitative assessment strategies. These strategies can be grouped into four broad categories:

1. **Faculty evaluation of students’ skills.** There is an endless number of ways that faculty can evaluate students’ soft skill development, both formally and informally. For example, critical thinking skills can be evaluated through written text focused on students’ evaluation of an argument, interpretation of data, and whether they can identify errors in reasoning or through oral communication focused on the strength of a students’ argument or the clarity of a students’ logic. Similarly, using a predefined set of criteria (e.g., consistency and clarity of content, details and organization of the work, visual displays, method of presentation, ability to respond to questions, and potentially improvement in skills over different presentations) students’ oral communication skills and self-confidence can be evaluated.
2. **Peer evaluation of students’ skills.** Cooperation skills as well as time management and responsibility can be evaluated by peers following a group-based project or activity by having students assess their peers’ level of effort, contribution of ideas or content, work ethic, and interpersonal competencies. Using a well-defined rubric that sets clear expectations for the kind of feedback (e.g., helping not judging), students can evaluate their peers’ oral or written critical thinking and communication skills by providing peer-to-peer feedback.
3. **Self-evaluation of own skills.** Students can evaluate their own soft skills through the use of reflection activities (e.g., one-minute reflection papers, journal entries, video blogs), review of an

action plan (e.g., personal goals around communication, critical thinking, cooperation) and related accomplishments, self-report measures of cooperation, persistence, self-confidence, etc.

4. **Faculty evaluation of faculty skills.** Continuous assessment of soft skill supportive pedagogy is needed to ensure that students are receiving high quality and consistent opportunities to use and further develop their own soft skills through appropriate modeling by faculty, cooperative learning, project-based learning, flipped classrooms, student-led activities, formal and informal speaking opportunities, etc. Faculty should be observed by colleagues on a regular basis (e.g., at least once a year) and be provided with a written summary of observations (including strengths and areas for improvement) related to soft skill supportive pedagogy.

## RECOMMENDATIONS FOR ASSESSMENT IN UNIVERSITIES IN MOROCCO

Although the situation is challenging in Morocco (as it is in many universities around the world), there are many opportunities for improvement.

1. **Implement a language placement test.** Because students come in with such different levels of proficiency, a language placement test would serve many purposes. First, it would provide information to the administration on the general levels of proficiency of incoming students and allow for better planning of the curricula. Second, it would provide information on how students need to focus in order to reach the next level. Third, it would eventually provide articulation between secondary and post-secondary programs to establish goals for secondary school language proficiency.
2. **Improve language and soft skills assessment literacy of stakeholders.** Short courses, posters, and short articles could help students and instructors alike understand the kind of language and skills needed to flourish in Moroccan universities and also adjust expectations to what is doable during a course of study. In addition, helping professors, TAs, and students understand the different types and weights of assessment would help them see the connection between instruction and assessment.
3. **Establish language benchmarks.** By establishing the CEFR levels needed to succeed in coursework, including domain and content-specific levels, the goal of the project will be clarified. If students are entering with, for example, an A1 and need a C1 to succeed, that will be difficult to attain in just one year. In addition, different proficiencies may be needed in different domains, such as higher levels of reading and listening than speaking and writing. However, such benchmarks need to be based on research and a thorough needs assessment.
4. **Establish soft skills expectations.** By establishing clear definitions of soft skills and developing a concrete set of expectations around the skills needed to succeed in university classes, faculty and students would have a shared understanding of what these skills are, how they are practiced, and how they are evaluated, increasing the likelihood of successful integration of these skills across classes and contexts.
5. **Scheduling.** The current approach perpetuates the issue of only end-of-term summative assessments. By scheduling two weeks for assessment at the end of the term, students have neither the incentive to attend classes all semester nor information on their grasp of the coursework until the end of the semester. A more measured approach is needed.
6. **Curriculum and assessment development.** Both curricula and assessments need to be developed in tandem, to ensure an even and fair learning environment. By developing a core set of assessments and sharing them across the faculty, the likelihood of reliable, valid, and equitable assessment increases.

7. **Provide syllabus and grading criteria for students.** At the beginning of each course provide all students with a syllabus with clear expectations regarding attendance, assignments, and clear indication of how the final grade will be computed.
8. **Staffing.** Perhaps the most pervasive reason for the assessment issue is large class size and limited bandwidth for professors to provide ongoing feedback to students on their progress. In addition to developing shorter, reliable, and valid assessments to be administered throughout the semester with sufficient time for administration and grading for professors, as well as support from well-prepared TAs or graders.
9. **Continuous Assessment.** Support integration of continuous assessment in all classes.
10. **Capacity building for faculty** Providing capacity building to faculty on how to incorporate continuous assessment into their teaching and how to use the data for formative purposes both in revising teaching content and approach and in providing students with feedback throughout the semester. Introduce faculty to a menu of alternate assessment approaches that are appropriate for different class sizes?
11. **Capacity building for TAs.** Provide capacity building for teaching assistants TAs to support ongoing assessment and grading and provision of feedback to students.

## ATTENDANCE POLICY

Faculty and students interviewed expressed concerns regarding the lack of attendance requirements and the implications for student attendance and learning. In addition, the active learning approaches and skill development noted above will only be possible if students are routinely attending class. Therefore, the DEEP team recommends the introduction of policies to encourage routine student attendance. Faculty could encourage attendance by linking grades to either attendance or completion of in-class assignments. For example, professors could design the grading scheme so that students' grades are boosted by a certain percentage (e.g., 5 or 10) if they attend more than a certain percentage (e.g., 90) of class sessions. Alternatively, professors could give a short (e.g., two-minute) quiz at the beginning of each class period and assign the quizzes a specified weight in the grading scheme for the course. This incentivizes attendance as missed quizzes earn a mark of zero and it can be used as an assessment. Students could also be required to attend a minimum percentage of classes (when class sizes are small enough to permit attendance tracking) or mid-semester assignments that would be an indication of class participation.

Universities could mandate that the grading scheme for all courses assign a specified weight (e.g., 5 or 10 percent) to attendance. Alternatively, universities could encourage professors to adopt incentives for attendance while not making this policy mandatory. This is the option most frequently adopted at American universities. A drawback of this option is that professors who make attendance mandatory may then be viewed negatively by students and, for that reason, some professors prefer that the university mandate attendance.

The introduction of some form of attendance requirement will be particularly important as a tool to reduce the number of "ghost students" or those students who enroll solely to collect the monthly government stipend. If receipt of the stipend were conditional upon attendance, such "ghost students" would probably not attempt to enroll at the universities or, if they did, would soon drop out.

## **Classroom Technology for Recording Attendance, Checking Understanding and Promoting Active Learning**

Audience response systems are interactive technologies used by instructors in the classroom to facilitate instantaneous interaction. Each student has either a small hand-held device, called a clicker, or an app on a personal electronic device (smartphone, tablet, or laptop) to register a response. Attendance can be taken even in large classes without disrupting class activities or taking valuable time by having each student simply press a button on the clicker. The second use of clickers is to gauge students' understanding of a particular concept by posing a question to which students respond. This can be done either multiple times during or once at the end of a class session. Clickers are also used to promote active learning through various exercises that involve pairs or groups of students talking or working together. A substantial body of research on the use of audience response systems in higher education is available to provide guidance to institutions wishing to adopt this technology (Wood and Shirazi, 2020).

Responses from the clicker are transmitted via wi-fi, infrared waves, or radio waves to a central location where they are analyzed instantly and summary statistics are sent immediately to the professor's computer. To use audience response systems, universities must invest in the digital system that gathers, processes, and displays the responses and students or universities must purchase hand-held clickers or obtain an app for their electronic device.

## **E-LEARNING**

The use of e-learning has increased tremendously in higher education worldwide in the past decade. Many professors now use blended learning methods, combining lectures and e-learning methods of instruction, and many universities now have courses and degree programs that are offered entirely online. If used properly, blended learning has the potential in Morocco to make students' learning less passive and more active and to relieve some of the congestion in classrooms. Distance learning would allow universities to reach students in remote areas of the country.

E-learning can also complement a shift towards active learning pedagogy. In e-learning, every student has a smartphone, tablet, or computer, which facilitates students' interaction with the professor, fellow students, and the learning material. In well-designed blended learning or distance learning, the interaction made possible by e-learning technology amplifies the pedagogical capabilities of the teacher and increases student mastery of the material. This result occurs, however, only if the teacher has appropriately designed the intended teacher-student interaction, the student-student interaction, and the student's interaction with the learning material. E-learning cannot be done effectively by simply digitizing lectures but, rather, requires a shift in pedagogical methods used by professors and in the learning style of students.

E-learning requires technology in the form of equipment and software. Most e-learning makes use of an LMS, a software application for the administration, documentation, tracking, reporting, automation and delivery of educational and training courses and programs. Installing and supporting an LMS is a large investment in staff time and, depending on the system, in money. Therefore, a university or higher education system typically selects and supports a single LMS based on desired features and cost. There are hundreds of systems being used globally but only a small number of them are being used in

universities. Many of these systems are proprietary and use rights that must be purchased while others, such as Moodle and Google Classroom, are open source and available at no cost. The systems vary greatly in their features, user-friendliness, and the equipment and technical support that are needed locally. Features such as assessment and attendance tools and access by mobile technology such as smartphones are available in some systems but not in others. Another important consideration is the method of hosting the system. Some systems must be hosted locally, requiring high-capacity computer servers and technicians with specific skills, while others are hosted in the cloud and require little local infrastructure. Given the range of feature options and costs, careful analysis of teaching and learning needs, goals, and available financial resources is essential before choosing an LMS. A body of literature is available on the selection of an LMS in developing countries (Mukoviz, Ihnatendo, and Kovtun, 2019; Kraleva, Sabani, and Krlev, 2019; Kasim and Khalid, 2016).

The DEEP team recommends a two-component e-learning strategy focused on blended learning (component one) and distance learning (component two). Blended learning can be introduced incrementally by gradually supplementing traditional lecture methods with e-learning methods of instruction. Distance learning, on the other hand, is done entirely through e-learning methods and technology and involves a much larger shift in teaching methods and learning styles.

A second e-learning recommendation is that each university develop an e-learning plan that identifies goals, targets, training of faculty and students, equipment and software, and technical support. Clarity about goals is important to ensure that the e-learning strategy supports the university's larger goal of pedagogical improvement. Targets might focus on the percent of classes that begin to use blended learning methods by a specified date.

A third e-learning recommendation is that each university select and support a single LMS. The public universities should share their LMS experiences and lessons learned with each other and could even collaborate in the choice of an LMS, in training faculty and students, and in support of the technology.

## **FACULTY HIRING AND TEACHING ASSISTANTS**

The DEEP team recommends that the Ministry and the universities find ways to make better use of faculty to reduce class size (for example, by teaching multiple sections of classes that are large) and to create a more equitable distribution of the teaching load. Many professors in Moroccan public universities teach only several hours per week while others do not teach at all during some academic sessions.

A second human resource recommendation is that more professors be hired to lower the student-faculty ratio to the norm for the region. As noted earlier in this report, the average ratio in higher education is in 57 in Moroccan public universities but just 24 in Egypt, 28 in Algeria, and 29 worldwide (Index Mundi, 2021).

A third recommendation is that GTAs be integrated into undergraduate teaching. They should be compensated through a bonus or stipend but not a salary.

A needs assessment of instructors needed to support the introduction of foundation year courses will help universities and the ministry determine the number of existing faculty, the number of additional new faculty, and the number of GTAs needed to carry out the foundation year courses that will initially be piloted.



## FACILITIES (CLASSROOMS AND OFFICES)

The number of students in many classrooms far exceeds the number for which the facilities were designed. Building new classrooms and revamping existing classrooms is essential for successful adoption of more active modes of learning. The DEEP team recommends that more classrooms be built, that both new and existing classrooms be fitted with projection and audio equipment, and that they be built or retrofitted to accommodate access by students with disabilities.

Many professors lack access to office space where they can meet with students and prepare for class, according to interviews with faculty. Offices are important venues particularly for faculty-student engagement, which affects the performance, morale, and retention of students. The DEEP team recommends that all professors be provided access to office space. In the short run, office space could be assigned on a rotating basis to align with the hours when professors are expected to be available to meet with students. In the long run, office space should be added either in new or re-purposed buildings when funding permits.

A foundation year needs assessment of classrooms and faculty offices will inform the development of classroom and office allocations as well as begin to identify long-term construction plans.

## 6. CONCLUSIONS

The MOE has proposed an ambitious BA foundation year reform with the objective of increasing students' successful completion of their undergraduate degrees and their integration into the labor market. The foundation year reform is designed to support students in their transition from secondary school to the university by providing them with the orientation, language skills, study skills, and soft skills needed to effectively engage in university classes. Through the implementation of the reform, the Ministry hopes to see an increase in on-time student completion rates, a reduction in student dropout and system wastage, and greater integration of graduates into the labor market.

In response to the Ministry's request, USAID engaged the DEEP team to research the proposed reform and to provide recommendations related to the reform elements and implementation. The DEEP team focused on the introduction of EMI, the integration of soft skills, study skills, and general education courses. This afforded the research team the opportunity to reflect on challenges in the current university system, stakeholders' hopes, and concerns regarding the proposed reform, and lessons learned from past reforms in Morocco. An in-depth literature review combined with FGDs and key informant interviews with university faculty and students as well as Ministry leadership, provided the information base for this research.

The DEEP found that while the ambitious reform incorporates crucial elements, many of the foundational challenges that exist within the Moroccan university system, are not addressed. This is particularly true among the universities' open faculties. High student-teacher ratios, disproportionate time focused on assessment relative to instructional time, lack of student orientation to the university, low student attendance rates, and low language proficiency levels in the language of instruction are some examples of challenges not specifically addressed in the proposed reform. In addition, in some cases, the DEEP team felt that the proposed reform elements would need to go further in order to reach their intended objective. For example, with English language instruction, the team felt that students should be assessed to gauge their language proficiency level and that a sequence of more intense English (or

French) language courses would need to be made available to ensure that students have the proficiency level needed to engage in major-specific classes in their second year at the university.

Reflecting on past university reforms in Morocco as well as lessons learned from around the world, the team felt that a greater focus on change management processes and considerations should be incorporated into the reform’s design. Regardless of the reform design, a change management plan that clearly maps out and communicates the proposed reform elements and processes, specifies roles, responsibilities, timelines, incentives, and resource requirements is essential for successful reform implementation.

The DEEP team developed a series of detailed recommendations related to the proposed foundation year curriculum. The team also provided recommendations designed to address some of the most commonly cited systems-level challenges such as over-crowded classes and a lack of capacity building for faculty members. Lastly, the team provided recommendations regarding change management. The team compiled relevant examples from Morocco, the MENA region, and the world to serve as a reference as the Ministry and universities begin to implement the reform. The DEEP team’s modification of the foundation year curricular structure is provided below.

Exhibit 34: Proposed foundation year structure

• New Student Orientation			
Semester 1	Credits	Semester 2	Credits
Study Skills	3	Modern Literacies – Information Technology, statistics	3
Soft Skills	6	Public Speaking	3
Gen Ed I: Scientific Encounters – natural sciences and mathematics	6	Gen Ed II: Cultural Explorations – Humanities and Social Sciences	6
Elective	3	Elective	3
Language	6	Language	6
Language	6	Language	6
<b>Total</b>	<b>30</b>		<b>27</b>

Below is a list of recommendations that builds off of the reform plans and long-term objectives, the system’s existing assets. These recommendations reflect the feedback and prioritization proposed by Ministry and university representatives in a series of workshops. Some of these recommendations could be introduced on a pilot basis in the near term while many represent long-term recommendations that, if deemed appropriate by Ministry and university representatives, would need to be instituted in the coming years.

# RECOMMENDATIONS

Be purposeful about change management to support the effective and phased implementation of the BA reform. Ensure that resources are set aside for the reform and that expectations regarding the reform, as well as support that the Ministry will provide, are clearly communicated. Change management teams discussed below would have to work closely with the Ministry to develop implementation plans mapping out actions, timelines, and roles and responsibilities of university and Ministry stakeholders that are associated with each recommendation. A simple tool, such as an action planning matrix, could be used to facilitate an implementation plan discussion across stakeholders. The recommendations below have been ordered according to prioritization provided by Ministry and University workshop participants. The asterisk (\*) indicates recommendations that participants felt could begin to be instituted in the short term.

## Faculty Supports

- Introduce or expand the use of student teaching assistants to conduct study sessions and office hours, and support grading.\*
- Provide capacity building to faculty to support the integration of student-centered instructional approaches, continuous assessment for formative purposes, soft skills development and use in all courses in years 1 to 4, student learning opportunities outside of the classroom, and e-learning platforms and appropriate instructional approaches.\*
- Take steps to preserve instructional time by scheduling continuous assessments throughout the term and limiting assessment time at the end of each semester.\*
- Increase the number of faculty to the extent possible and better utilize existing faculty positions.
- In pre-service training programs, provide capacity building for faculty who lack specialization in pre-service teacher training programs.

## Student Supports

- Integrate pedagogical practices that require active rather than passive learning and thus enhance students' soft skills.\*
- Provide new students with a required 2-3 day university orientation workshop. \*
- Introduce general education courses in the foundation year that expose students to a broad range of subjects.\*
- For English and French, establish proficiency benchmarks that align with the proficiency level needed to effectively participate in second-year classes where English or French is the language of instruction.\*
- Institute language placement tests for all students to see how their proficiency compares to the established benchmarks and to place students in appropriate language classes.\*
- Institute “majors fairs” and provide faculty advisors to guide students in the selection of their major.
- Introduce intensive courses focused on language for academic purposes to ensure that students are prepared for EMI in year 2.
- Introduce differentiated language classes so that students are placed in the level and intensity needed to achieve proficiency.

- Introduce soft skill and study skill courses in the foundation year to support the development of the skills needed for university success.
- Provide opportunities for students to continue to practice soft skills and language skills outside of course work through the introduction of internships, service-learning, community engagement, volunteering, language clubs, etc.
- Conduct foundation year classes in English, French, or Arabic to ensure that students are able to fully participate in class; require students to pass a language proficiency test before selecting a language.
- Integrate continuous assessment and provide students with syllabus and grading criteria.
- Establish benchmarks and an evaluation system for pre-service teachers to ensure that they are sufficiently prepared to enter the CRMEF program.

### **Change Management/Resources**

- Create Change Management Teams and Advisory Groups at Ministry and university levels to manage the implementation of the reform.\*
- Within each university, develop and implement plan for two-way communication throughout the change process.\*
- Provide incentives for establishments, departments, and faculty to adopt reform.\*
- Adopt a university-wide e-Learning platform and provide computers and IT infrastructure. \*
- Identify and support innovative teachers to serve as early adopters.\*
- Provide new and revamped classrooms with adequate audio and projection.
- Allocate flexible office space to accommodate faculty office hours.
- Encourage the introduction of attendance requirements/incentives.
- Provide laboratories and workspace for hands-on activities for students.

## REFERENCES

Abid, F. *E-Learning and ICT: Seeking Novelty in ELT Teacher's Professional Development*. In Proceedings of the 36<sup>th</sup> MATE Annual Conference, Morocco 2016.

Ait Tejan, O., A. Sabi. "Understanding Employers' Perception of Employability Skills and Career Development in Morocco." *International Journal of Education and Literacy Studies*, v7 n2. 2019. <https://eric.ed.gov/?id=EJ1219595>

Aitnasser, Khalid. "Finding A Place to Sleep—A Challenge for Moroccan Students," *Al-Fanar Media*. July 13, 2015. <https://www.al-fanarmedia.org/2015/07/finding-a-place-to-sleep-a-challenge-for-moroccan-students/>

Al Akhawayn University. "2019-2021 Catalog: Undergraduate and Graduate Programs." <http://www.aui.ma/AUI-Catalog2019-2021.pdf>

Al Othman, Fadel H. M., and Khaled M. Shuqair. 2013. Effectiveness of the Remedial Courses on Improving EFL/ESL Students' Performance at University Level in the Arab World. *International Journal of Higher Education*, 2:3. pp. 132-138. Retrieved from: <https://eric.ed.gov/?id=EJ1067409>.

Al-Aama, A. Y. (2005). *Service-Learning at King Abdul Aziz University*.

Al-Hendawi, Maha and Susan Albertine, "General Education in the Middle East and North Africa: Deep Roots, Contemporary Context," in *Tradition Shaping Change: General Education in the Middle East and North Africa*, eds. Maha Al-Hendawi, Abdelhamid Ahmed, and Susan Albertine, 1-11. Washington, D.C.: Association of American Colleges and Universities, 2019. <https://www.aacu.org/publications/mena>

Al-Hendawi, Maha. "A New Network to Support Better General Education," *Al-Fanar Media*. October 13, 2015. <https://www.al-fanarmedia.org/2015/10/a-new-network-to-support-better-general-education/>

Al-Hendawi, Maha. Personal communication during key-informant interview, 2021.

Allaoui, A., & Benmoussa, R. (2020). Employees' attitudes toward change with Lean Higher Education in Moroccan public universities. *Journal of Organizational Change Management*, 33(2), 253–288. <https://doi.org/10.1108/JOCM-08-2018-0232>.

Amrous, N., & N. Nejmaoui. "A developmental approach to the use of critical thinking skills in writing: The case of Moroccan EFL university students." In ASELS Annual Conference Proceedings, Mohammed V University of Rabat, Morocco (pp. 142-156). Kuala Lumpur: *Arab World English Journal*, 2016. <https://awej.org/index.php/2013-04-17-12-20-35/71-annual-conference-of-asels-morocco-2016/1078-nourddine-amrous-nabila-nejmaoui>

Angelo, T. A., & Cross, K. P. (1993). Minute paper. *Classroom assessment techniques: A handbook for college teachers*, 148-153.

Arab States Research and Education Network and MARWAN. "Boosting online learning in Morocco during the coronavirus lockdown." *In the Field*, August, 2020. <https://www.inthefieldstories.net/boosting-online-learning-in-morocco-during-the-coronavirus-lockdown/>

Archambault, I., Janosz, M., Fallu, J. S., & Pagani, L. S. (2009). Student engagement and its relationship with early high school dropout. *Journal of Adolescence*, 32(3), 651–670. <https://doi.org/10.1016/j.adolescence.2008.06.007>.

Aronson, E.; Blaney, N.; Stephin, C.; Sikes, J., & Snapp, M. (1978). *The jigsaw classroom*. Beverley Hills, CA: Sage Publishing Company

Arulampalam, W., Naylor, R. A., & Smith, J. (2012). Am I missing something? The effects of absence from class on student performance. *Economics of Education Review*, 31(4), 363–375.

Asserraji, Rym. 2020. *Insights Regarding the Assimilation of Technology in the Learning Process of Learners in Higher Education in Morocco*. *International Journal of Linguistics, Literature and Translation*, 3:1. pp. 69-76. Retrieved from: [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3528340](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3528340).

Avalos, B. (2011). Teacher professional development in teaching and teacher education over ten years. *Teaching and teacher education*, 27(1), 10-20.

Baba Khouya, Youssef. 2018. *Students Demotivating Factors in the EFL Classroom: The Case of Morocco*. *Advances in Language and Literary Studies*, 9:2. pp. 150-159. Retrieved from: <http://journals.aiac.org.au/index.php/all/article/view/4335#:~:text=Six%20main%20findings%20were%20reported,the%20main%20demotivators%20in%20learning>.

Baker Will, Hüttner, Julia. 2016. English and more: a multisite study of roles and conceptualisations of language in English medium multilingual universities from Europe to Asia. *Journal of Multilingual and Multicultural Development*, 38, pp. 501–516

Barkley, E. F., Cross, K. P., & Major, C. H. (2014). *Collaborative learning techniques: A handbook for college faculty*. John Wiley & Sons.

Bausch, J., P. Dyer, D. Gardiner, J. Kluge, and E. Mizrokhi. “The Impact of youth skills training on the financial behavior, employability, and educational choice in Morocco.” *3ie Impact Evaluation Report 54*. 2017. <https://www.3ieimpact.org/evidence-hub/publications/impact-evaluations/impact-youth-skills-training-financial-behaviour>

Bekou, Ali. “E-learning in Morocco: Now and beyond.” [preprint] *Université Ibn Tofail*, 2020. [https://www.researchgate.net/publication/341754730\\_E-learning\\_in\\_Morocco\\_Now\\_and\\_beyond\\_E-learning\\_in\\_Morocco\\_Now\\_and\\_beyond](https://www.researchgate.net/publication/341754730_E-learning_in_Morocco_Now_and_beyond_E-learning_in_Morocco_Now_and_beyond)

Belghiti, K., Y. El Allame, M. Chana. "Critical Thinking Development: The Case of the English Course in the CPGE Classes in Meknes, Fes and Kenitra." *Arab World English Journal*, , December 2016 *ASELS Annual Conference Proceedings*, 2016. [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2895544](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2895544)

Belhia, H. 2020. English as a Global Language in Morocco: A Qualitative Study of Students' Motivations for Studying English. [https://link.springer.com/chapter/10.1007/978-981-15-3805-6\\_3](https://link.springer.com/chapter/10.1007/978-981-15-3805-6_3)

Belhiah, Hassan, and Abilkassem Abdelatif. 2016. *English as a Medium of Instruction in Moroccan Higher Education*. *Arab World English Journal*, December 2016. pp: 227-238. Retrieved from: [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2895569](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2895569).

- Benmoussa, N., K. Mansouri, M. Qbadou, and E. Illoussamen. 2018. "The Impact of Technological Evolution on the Labor Market and the Skills of Academics: Case 'Adequacy Between University Training Offers and the Job Market.'" *11<sup>th</sup> Annual International Conference of Education Research and Innovation*. Seville, Spain. 2018. <https://library.iated.org/view/BENMOUSA2018IMP>
- Bensoukas, Karim. 2016. *Digital Learning Resource Development and Flipped Learning-Innovative Teaching of "Introductory Phonetics."* *Languages and Linguistics* 38, 2016. pp: 73-92.
- Benton, S. L., & Ryalls, K. R. (2016). Challenging Misconceptions about Student Ratings of Instruction. IDEA Paper# 58. IDEA Center, Inc.
- Benzehaf, B. (2016). Exploring Teachers' Assessment Practices and Skills. *International Journal of Assessment Tools in Education*, 4(1), 1–18. doi:10.21449/ijate.254581
- Bergmann, J., & Sams, A. (2012). Before you flip, consider this. *Phi Delta Kappan*, 94(2), 25-25.
- Bergmann, J., Overmyer, J., & Willie, B. (2011). The flipped class: what it is and what it is not. *The Daily Riff*, Retrieved from <http://www.thedailyriff.com/articles/the-flipped-class-conversation-689.php>
- Bligh, D. A. (2000). *What's the use of lectures?* San Francisco: Jossey-Bass. ISBN 0-7879-5162-5
- Bomett, E. (2015). Performance Contract in Kenyan Public Universities: Implementation Issues and Strategies. *British Journal of Education*, 3(1), 90–105.
- Bonwell, C. C., and Eison, J.A. (1991). Active learning: creating excitement in the classroom. ASH#-ERIC Higher Education Report No. 1, Washington, D.C.: The George Washington University, School of Education and Human Development.
- Boustane, H. (2020). *Assessment Literacy in Moroccan Higher Education: Undergraduate Students' Perspectives*. Thesis for: Bachelor of Arts, Hassan II University, Casablanca
- Bouziane, A. (2018). L'enseignement des langues au Maroc : état des lieux et perspectives.
- Bouزيد, Hassan Ait. 2016. *Innovative Practices in Teaching "Study Skills": A Comparative Study*. *Languages and Linguistics* 38, 2016. pp: 41-52.
- British Council. "English and Soft Skills in the Maghreb: Research Report." *British Council*. 2016. <https://www.britishcouncil.org/sites/default/files/english-soft-skills-maghreb-research-report.pdf>
- British Council. 2014. *English as a Medium of Instruction: A Growing Global Phenomenon*. Retrieved from [https://www.britishcouncil.es/sites/default/files/british\\_council\\_english\\_as\\_a\\_medium\\_of\\_instruction.pdf](https://www.britishcouncil.es/sites/default/files/british_council_english_as_a_medium_of_instruction.pdf)
- Brown, S. (2005). Assessment for Learning. *Learning and Teaching in Higher Education* (1). pp. 81-89. ISSN 1742-240X. <http://eprints.glos.ac.uk/3607/1/LATHE%201.%20Assessment%20for%20Learning%20Brown.pdf>
- Cabus, S. J., & De Witte, K. (2015). Does unauthorized school absenteeism accelerates the dropout decision? – Evidence from a Bayesian duration model. *Applied Economics Letters*, 22(4), 266–271. <https://doi.org/10.1080/13504851.2014.937031>.



Carr, R., Palmer, S., and Hagel, P. (2015). Active learning: the importance of developing a comprehensive measure. *Active Learning in Higher Education* 16, 173-186.

CEIC. "Morocco Education Statistics." *CEIC Data*. <https://www.ceicdata.com/en/morocco/education-statistics?page=2>

Chaibate, H. and S. Bakkali. "Skills for employability: Identification of the Soft Skills required in engineering education." *The Journal of Quality in Education*, 7(9), 12.. 2017. <https://doi.org/10.37870/joqie.v7i9.5>

Chaibate, H., A. Hadek, S. Ajana, S. Bakkali and K. Faraj, "Analyzing the engineering soft skills required by Moroccan job market," 2019 5th International Conference on Optimization and Applications (ICOA), Kenitra, Morocco, 2019. <https://ieeexplore.ieee.org/abstract/document/8727712>

Chaibate, H., A. Hadek, S. Ajana, S. Bakkali, and K. Faraj. "A Comparative Study of the Engineering Soft Skills Required by Moroccan Job Market." *International Journal of Higher Education* v9 n1. 2020. <https://eric.ed.gov/?id=EJ1237106>

Chen, J., & Lin, T. F. (2008). Class attendance and exam performance: A randomized experiment. *Journal of Economic Education*, 39(3), 213–227. <https://doi.org/10.3200/JECE.39.3.213-227>

Cherkaoui, Mouna and Mohamed Berdouzi. "Higher Education Reform in Morocco." *Mohamed V University, Rabat, Morocco* (n.d.).

Chouari, A., & M. Nachit. "Teaching and assessing 21st century critical thinking skills in Morocco: A case study." *Arab World English Journal*, 7(4), 2016. <https://awej.org/index.php/volume-7-2016/70-awej-volume-7-number-4-december-2016/1041-ahmed-chouari-mohssine-nachit>

Christensen, Linda. 2006. *Teachers Teaching Teachers*. Rethinking Schools Online. 20 (2). Retrieved from [http://rethinkingschools.aidcvt.com/special\\_reports/quality\\_teachers/ttt202.shtml](http://rethinkingschools.aidcvt.com/special_reports/quality_teachers/ttt202.shtml)

Clark, C., A. Elshimi, G. Elshimi, and R. Switzer. "The Core Curriculum at the American University in Cairo: Legacy and Innovation." In *Tradition Shaping Change: General Education in the Middle East and North Africa*, edited by Maha Al-Hendawi, Abdelhamid Ahmed, and Susan Albertine, 24-36. Washington, D.C.: Association of American Colleges and Universities, 2019. <https://www.aacu.org/publications/mena>.

Cleland, J., Rillero, P., & Zambo, R. (2003). Effective prompts for quick writes in science and mathematics. *Electronic Journal of Literacy through Science*, 7(2).

Coker, J. S., Heiser, E., Taylor, L., & Book, C. (2017). Impacts of experiential learning depth and breadth on student outcomes. *Journal of Experiential Education*, 40(1), 5-23.

Conseil Supérieur de l'Education, de la Formation et de la Recherche Scientifique. "For a School of Equity, Quality and Promotion: A Strategic Vision of Reform 2015-2013. Abstract." *Conseil Supérieur de l'Education, de la Formation et de la Recherche Scientifique*. <https://www.csefrs.ma/wp-content/uploads/2015/05/Re%CC%81sume%CC%81-vision-Anglais.pdf>

Conseil Supérieur de l'Education, de la Formation et de la Recherche Scientifique. "L'enseignement supérieur au Maroc: Efficacité efficience et défis du système universitaire à accès ouvert." *Conseil*

Supérieur de l'Éducation, de la Formation et de la Recherche Scientifique, 2018. <https://www.csefrs.ma/wp-content/uploads/2018/10/Rapport-Enseignement-superieur-Fr-03-10.pdf>

Conseil Supérieur de l'Éducation, de la Formation et de la Recherche Scientifique. "Réforme de l'enseignement supérieur: Perspectives stratégiques." *Conseil Supérieur de l'Éducation, de la Formation et de la Recherche Scientifique*, 2019. <https://www.csefrs.ma/publications/rapport-sur-le-theme-reforme-de-l-enseignement-superieur-perspectives-strategiques/?lang=fr>

Conseil supérieur de l'éducation, de la formation et de la recherche scientifique (CSEFRS). (2015). Vision stratégique de la réforme 2015-2030: pour une école de l'équité, de la qualité et de la promotion. Rabat, Morocco

Coombe, C., Vafadar, H. & Mohebbi, H. (2020). Language assessment literacy: what do we need to learn, unlearn, and relearn?. *Language Testing in Asia* 10, Article number 3. <https://language-testing-asia.springeropen.com/articles/10.1186/s40468-020-00101-6#citeas>

Council of Europe. 2001. *Common European Framework of Reference for Languages: Learning, teaching, assessment*. Strasbourg, France: Cambridge University Press. Retrieved from: <https://rm.coe.int/1680459f97>.

Deacon, C., & Hajek, A. (2011). Student perceptions of the value of physics laboratories. *International Journal of Science Education*, 33(7), 943-977.

Dellal, Mohamed. 2020. *Teaching and Learning English Through Digitized Curricula: Challenges and Prospects*. In: Belhiah, Hassan, et al. (Eds.) 2020. *English Language Teaching in Moroccan Higher Education*. Singapore: Springer Nature Singapore Pte Ltd.

Devadoss, S., & Foltz, J. (1996). Evaluation of Factors Influencing Student Class Attendance and Performance. *American Journal of Agricultural Economics*, 78(3), 499–507. <https://doi.org/10.2307/1243268>.

Devarajan, S., Monga, C., & Zongo, T. (2011). Making higher education finance work for Africa. *Journal of African Economies*, 20 (Supplement 3), 133–154. <https://doi.org/10.1093/jae/ejr020>

Deygers, B. & Malone, M.E. (2019) Language assessment literacy in university admissions policies or the dialogue that isn't. *Language Testing*. 36(3), 347-368.

Di Pietro, G. (2004). The determinants of university dropout in Italy: A bivariate probability model with sample selection. *Applied Economics Letters*, 11(3), 187–191. <https://doi.org/10.1080/1350485042000203832>

Dias, M., & Brantley-Dias, L. (2017). Setting the Standard for Project Based Learning: a proven approach to rigorous classroom instruction. *Interdisciplinary Journal of Problem-Based Learning*, 11(2), 14.

Dihi, M., and A. Bouamri. "The Effects of a Creativity Training Program on Students' Initial Perceptions of Creativity: The Case Study of Mohamed First University, Morocco." *Arab World English Journal* Vol 9: No 2, 2018. [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3201926](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3201926)

Draissi, Zineb and Qi ZhanYong. "COVID-19 Outbreak Response Plan: Implementing Distance Education in Moroccan Universities." [preprint] *Shaanxi Normal University*, 2020.

Echcharfy, M., and R. Erguig. "The Development of Moroccan EFL Learners' Intercultural Awareness Through Academic Reading: The Cognitive Dimension." *Journal of Applied Languages and Culture Studies*. No 3 (2020). <https://revues.imist.ma/index.php/JALCS/article/view/18398>

Education World. *Live Streaming Education: Sharing Learning Experiences with the World* Retrieved from: <https://www.educationworld.com/live-streaming-education-sharing-learning-experiences-world>

Educational Testing Service (ETS). 2020. TOEFL iBT: Test and Score Data Summary 2019. Retrieved from: [https://www.ets.org/s/toefl/pdf/94227\\_unlweb.pdf](https://www.ets.org/s/toefl/pdf/94227_unlweb.pdf).

El Ajraoui, T., K. Ben Kaddour, and M. Zerouh. "Transversal Skills in Vocational Education and Training: The Case of ENSAM Engineering Students." *European Scientific Journal* Vol.15, No.8. 2019. [https://www.researchgate.net/publication/332224678\\_Transversal\\_Skills\\_in\\_Vocational\\_Education\\_and\\_Training\\_The\\_Case\\_of\\_ENSAM\\_Engineering\\_Students](https://www.researchgate.net/publication/332224678_Transversal_Skills_in_Vocational_Education_and_Training_The_Case_of_ENSAM_Engineering_Students)

El Haini, J. "Implementing a Flipped Classroom Structure in Engineering Education to Improve the Soft Skills." *Journal of Engineering Education Transformations* Volume 33, Issue 3. 2020. <http://journaleet.org/index.php/jeet/article/view/147042>

El Kaidi, Youssef. "Educational Reforms in Morocco: A Chronology of Failures." *Inside Arabia*, November 2, 2018. <https://insidearabia.com/educational-reforms-morocco-failures/>.

El Mansour, B. and J. Dean. "Employability Skills as Perceived by Employers and University Faculty in the Fields of Human Resource Development (HRD) for Entry Level Graduate Jobs." *Journal of Human Resource and Sustainability Studies* Vol.04 No.01. 2016. [https://www.scirp.org/html/5-2830144\\_65145.htm](https://www.scirp.org/html/5-2830144_65145.htm)

El Masrar, Khoulood. "The Current University Reforms in Morocco: The Present Situation of Labor Market and Culture." *International Journal of Humanities and Social Science* 5, no. 9 (2015): 182-188.

El Mouhtarim, S. "Integrating Critical Thinking Skills in Reading Courses at the University Level: The Case of Faculty of Letters and Humanities, Beni-Mellal, Morocco." *Arab World English Journal* Volume 9: Number 3, 2018. [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3258834](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3258834)

Elgeddawy, M. "Profiling Graduate Employability through a Competency-Based Core Curriculum Program. In *Tradition Shaping Change: General Education in the Middle East and North Africa*, edited by Maha Al-Hendawi, Abdelhamid Ahmed, and Susan Albertine, 50-61. Washington, D.C.: Association of American Colleges and Universities, 2019. <https://www.aacu.org/publications/mena>.

Eller, R. (2017). TRAINING AND MENTORING GRADUATE TEACHING ASSISTANTS: A REVIEW OF THE LITERATURE. *AU-eJournal of Interdisciplinary Research (ISSN: 2408-1906)*, 2(1).

Elmaadaway, M. A. N. (2018). The effects of a flipped classroom approach on class engagement and skill performance in a blackboard course. *British Journal of Educational Technology*, 49(3), 479-491.

EL-Tohamy, Amr. "Morocco's Planned Reforms for Undergraduate Education Stir Broad Opposition," *Al-Fanar Media*, November 2, 2020. <https://www.al-fanarmedia.org/2020/11/moroccos-planned-reforms-for-undergraduate-education-stir-broad-opposition/>

Erguig, R. "Study Skills": An Investigation of Teachers' and Students' Attitudes." *Journal of Applied Languages and Culture Studies*. No 1 (2018). 2018. <https://revues.imist.ma/index.php/JALCS/article/view/13162>

Erguig, R., & Khtou, H. (2006). The new reform in higher education in Morocco: A shift from terminal to continuous assessment. *Languages and Linguistics*, 17, 99–118

Errihani, Mohammed. 2017. *English Education Policy and Practice in Morocco*. In: Kirkpatrick, Robert. (Ed.) 2017. *English Language Education Policy in the Middle East and North Africa*. Cham, Switzerland: Springer International Publishing.

Ettoualy, Mustafa. "Overview of Moroccan Higher Education," *Morocco World News*, March 11, 2013. <https://www.morocroworldnews.com/2013/03/81789/overview-of-moroccan-higher-education/>

Etzkowitz, H. (2004). The evolution of the entrepreneurial university. *International Journal of Technology and Globalisation*, 1(1), 64–77.

European Commission. (2017). Overview of the Higher Education System Morocco. [https://eacea.ec.europa.eu/sites/eacea-site/files/countryfiches\\_morocco\\_2017.pdf](https://eacea.ec.europa.eu/sites/eacea-site/files/countryfiches_morocco_2017.pdf)

European Commission. 2018. *Erasmus + for Higher Education in Morocco*. European Commission. Retrieved from: [https://ec.europa.eu/assets/eac/erasmus-plus/factsheets/neighbourhood/erasmusplus\\_morocco\\_2017.pdf](https://ec.europa.eu/assets/eac/erasmus-plus/factsheets/neighbourhood/erasmusplus_morocco_2017.pdf)

Everley, M. L. (1996). Making the Transition from Soft to Hard Funding: The Politics of Institutionalizing Instructional Development Programs. *To Improve the Academy*, 15(20201217). <https://doi.org/10.3998/tia.17063888.0015.017>

FHI 360. "USAID Career Center Final Report." USAID, 2020. [https://pdf.usaid.gov/pdf\\_docs/PA00WQ5H.pdf](https://pdf.usaid.gov/pdf_docs/PA00WQ5H.pdf)

Foch, Arthur and Carlo Maria Rossotto. "Broadband: the platform of the digital economy and a critical development challenge for Morocco." The World Bank Group, 2016. <http://documents1.worldbank.org/curated/ar/547301493384118940/pdf/114660WP-v2-P151545-PUBLIC.pdf>

Forbes, J., Malan, D. J., Pon-Barry, H., Reges, S., & Sahami, M. (2017, March). Scaling introductory courses using undergraduate teaching assistants. In *Proceedings of the 2017 ACM SIGCSE Technical Symposium on computer science education* (pp. 657-658).

Freeman, Kathleen Trayte. "Morocco: A Guide to Its Educational System and Advice for the Admission and Placement of Students Educated in Morocco," 2010. <https://theconnection.ece.org/public/resources/Morocco-final-3-2-10.pdf>

Freeman, S., Eddy, S.L., McDonough, M., Smith, M.K., Okoroafor, N., Jordt, H., and Wenderoth, M.P. (2014). Active learning increases student performance in science, engineering, and mathematics. *Proceedings of the National Academy*

Fullan, M., & Scott, G. (2009). *Turnaround Leadership for Higher Education*. John Wiley & Sons.

Gardner, G. E., & Jones, M. G. (2011). Pedagogical preparation of the science graduate teaching assistant: Challenges and implications. *Science Educator*, 20(2), 31-41.

Ghaicha, Abdallah. "Moroccan Higher Education System: Reality and Prospects." *Higher Education of Social Science* 14, no. 1 (2018): 10-17.

Green, S. K., Smith III, J., & Brown, E. K. (2007). Using Quick Writes as a Classroom Assessment Tool: Prospects and Problems. *Journal of Educational Research & Policy Studies*, 7(2), 38-52.

Halpern, D. F. (1999). Teaching for Critical Thinking: Helping College Students Develop the Skills and Dispositions of a Critical Thinker. *New Directions for Teaching and Learning*, 80, 69–74.

Hanushek, Eric A., and Steven G. Rivkin. 2010. *Using Value-Added Measures of Teacher Quality*. National Center for Analysis of Longitudinal Data in Education Research, Brief 9. Retrieved from: <https://www.urban.org/sites/default/files/publication/33216/1001371-Using-Value-Added-Measures-of-Teacher-Quality.PDF>.

Haouassia, S. (2016). Réflexions sur l'évaluation des acquis cognitifs des étudiants au cycle supérieur au Maroc. *The Journal of Quality in Education*, 6(8), 7.

Hatim, Yahia. "Remote Classes Resume on Morocco's National Television." *Morocco World News*, May 26, 2020. <https://www.moroccoworldnews.com/2020/05/303832/remote-classes-resume-on-morocco-national-television/>

Hatim, Yahia. "Unemployment Rate in Morocco Highest Among University Graduates." *Morocco World News*, February 19, 2020. <https://www.moroccoworldnews.com/2020/02/294060/unemployment-rate-in-morocco-highest-among-university-graduates/>

Hayes, J. (2018). *The theory and practice of change management*. Palgrave.

Hidri, S. & Coombe, C. (2017). *Evaluation in Foreign Language Education in the Middle East and North Africa*. Second Language Learning and Teaching. Springer International Publishing AG Switzerland.

High Commissioner of Planning and the World Bank. n.d. "Labor Market in Morocco: Challenges and Opportunities."

Hismanoglu, Murat, and Sibel Hismanoglu. 2011. *Task-based language teaching: what every EFL teacher should do*. *Procedia Social and Behavioral Sciences*, 15. pp: 46-52. Retrieved from: <https://www.sciencedirect.com/science/article/pii/S187704281100228X>.

<https://uwaterloo.ca/centre-for-teaching-excellence/teaching-resources/teaching-tips/alternatives-lecturing/discussions/facilitating-effective-discussions>

Huxham, M. (2005). Learning in lectures Do 'interactive windows' help? *Active learning in higher education*, 6(1), 17-31

Hyland, Ken (2006) *English for Academic Purposes: An Advanced Resource Book*. Routledge, New York, NY.

ICEF Monitor. "Morocco still aiming to boost education quality and access." ICEF Monitor, 2015. <https://monitor.icef.com/2015/02/morocco-still-aiming-boost-education-quality-access/>

Ichebah, Amina. 2020. *Beliefs on English Language Teaching Effectiveness in Moroccan Higher Education*. In: Belhiah, Hassan, et al. (Eds.) 2020. *English Language Teaching in Moroccan Higher Education*. Singapore: Springer Nature Singapore Pte Ltd.

Index Mundi, Pupil-teacher ratio, tertiary. <https://www.indexmundi.com/>, accessed March 31, 2021.

Jebbour, M. "Exploring the Manifestation of Critical Thinking in the Moroccan Textbooks of English: The Case of 'Ticket 2 English.'" *Journal of English Educators Society*. 4:1. 2019. <http://ojs.umsida.ac.id/index.php/jees/article/view/1783>

Jin, L., Doser, D., Lougheed, V., Walsh, E. J., Hamdan, L., Zarei, M., & Corral, G. (2019). Experiential learning and close mentoring improve recruitment and retention in the undergraduate environmental science program at an Hispanic-serving institution. *Journal of Geoscience Education*, 67(4), 384-399.

Jones, J. L. (1993). TA training: From the TA's point of view. *Innovative Higher Education*, 18(2), 147-161.

Jongbloed, B., Kaiser, F., van Vught, F., & Westerheijden, D. F. (2018). Performance agreements in higher education: A new approach to higher education funding. In *European higher education area: The impact of past and future policies* (pp. 671–687). Springer.

Jordan, R.R. (2010). *English for Academic Purposes*, Cambridge University Press.

Kaaouachi, Abdelali. (2009). L'évaluation dans le système d'enseignement supérieur au Maroc : bilan des réalisations, limites et principaux défis. In *Towards an Arab Higher Education space: International challenges and social responsibilities: proceedings of the Arab regional conference on Higher Education*, Cairo, 31 May, 1-2 June 2009. (pp. 409-422).

Kasim, N. N. M., & Khalid, F. (2016). Choosing the right learning management system (LMS) for the higher education institution context: A systematic review. *International Journal of Emerging Technologies in Learning*, 11(6), 55–61. <https://doi.org/10.3991/ijet.v11i06.5644>.

Kehm, B. M., Larsen, M. R., & Sommersel, H. B. (2020). Student dropout from universities in Europe: A review of empirical literature. *Hungarian Educational Research Journal*, 9(2), 147–164. <https://doi.org/10.1556/063.9.2019.1.18>

Keli, Rim. "COVID-19 and distance learning in Morocco." *Medium, USOS international student blog* (Blog), April 17, 2020. [https://medium.com/@USOS\\_Antwerpen/covid-19-and-distance-learning-in-morocco-222b69baa902](https://medium.com/@USOS_Antwerpen/covid-19-and-distance-learning-in-morocco-222b69baa902)

Kendall, K. D., & Schussler, E. E. (2012). Does instructor type matter? Undergraduate student perception of graduate teaching assistants and professors. *CBE—Life Sciences Education*, 11(2), 187-199.



- Kerr, C., Kerr, C., Gade, M. L., & Kawaoka, M. (1994). *Higher education cannot escape history: Issues for the twenty-first century*. Suny Press.
- Keyser, M. W. (2000). Active learning and cooperative learning: understanding the difference and using both styles effectively. *Research strategies*, 17(1), 35-44.
- Kezar, A. (2001). *Understanding and Facilitating Organizational Change in the 21st Century: Recent Research and Conceptualizations*. Jossey-Bass.
- Kezar, A., & Eckel, P. D. (2002). The Effect of Institutional Culture on Change Strategies in Higher Education. *Journal of Higher Education*, 73(4).
- Khaouja, I., G. Mezzour, K. M. Carley, and I. Kassou. "Building a soft skill taxonomy from job openings." *Social Network Analysis*. 9,43 2019. <https://link.springer.com/article/10.1007/s13278-019-0583-9>
- Khtou, H. (2018). Reflections on the effects of formative assessment on learning. In R. Erguig, & A. Boudlal (Eds.), *Quality Assurance in English Studies in Moroccan Higher Education* (pp. 139–147). El Jadida: Faculté des lettres et des sciences humaines.
- Khtou, Hsein. "Challenges to the Mission of the English Department in Morocco." In *English Language Teaching in Moroccan Higher Education*, edited by H. Belhiah, I. Zeddari, N. Amrous, Jamal Bahmad, and N. Bejjit, 247-257. Springer, Singapore, 2020.
- King Mohammed VI. (2013, August 20). *Speech of His Majesty the King to Nation on Occasion of 60th Anniversary of Revolution of King and People*.
- Kissani, I., and A. Boudihaj. "Emotional Intelligence a Success Indicator for Implementing Liberal Arts Education in Morocco." *2019 IEEE Global Engineering Education Conference (EDUCON)*, Dubai, United Arab Emirates, 2019. <https://ieeexplore.ieee.org/abstract/document/8725054>
- Kleiche-Dray, M., & Belcadi, S. (2008). *L'université marocaine en processus d'autonomisation*.
- Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development*. Englewood Cliffs, NJ: Prentice-Hall.
- Kotter, J. P. . (2012). *Leading Change*. Harvard Business Press.
- Koumachi, B. "Exploring the Dynamic Interplay between Note-taking Strategies and Reading Comprehension Performance of Moroccan EFL Students: A Quasi-Experimental Study." *Randwick International of Education and Linguistics Science Journal* Vol 1, No. 2. 2020. <https://doi.org/10.47175/rielsj.v1i2.83>
- Kraleva, R., Sabani, M., & KraleV, V. (2019). An analysis of some learning management systems. *International Journal on Advanced Science, Engineering and Information Technology*, 9(4), 1190–1198. <https://doi.org/10.18517/ijaseit.9.4.9437>.
- Kurdziel, J. P., & Libarkin, J. C. (2003). Research methodologies in science education: Training graduate teaching assistants to teach. *Journal of Geoscience Education*, 51(3), 347-351.



Laaboudi, D., and R. Erguig. "Blending Language Courses: An Added Value." *Languages and Linguistics* 38, 2016. <http://www.lang-ling.com/Langues%20et%20Linguistique%2038.pdf>

Larmer, J., Mergendoller, J., & Boss, S. (2015). *Setting the standard for project based learning*. ASCD.

Lauer, T. (2021). *Change Management: Fundamentals and Success Factors*. Springer-Verlag. [https://www.google.com/books/edition/Change\\_Management/P68EEAAAQBAJ?hl=en&gbpv=1&dq=change+management+lauer&printsec=frontcover](https://www.google.com/books/edition/Change_Management/P68EEAAAQBAJ?hl=en&gbpv=1&dq=change+management+lauer&printsec=frontcover)

Lazrak, Mohammed and Yahya Yechouti, "Issues in Moroccan Higher Education." *International Journal of English Language & Translation Studies* 5, no. 2 (2017): 86-93.

Le conseil supérieur de l'éducation, de la formation et de la recherche scientifique. (2018). *L'ENSEIGNEMENT SUPÉRIEUR AU MAROC: Efficacité, efficience et défis du système universitaire à accès ouvert*.

Lewis, L. S., & Altbach, P. G. (1996). Faculty versus administration: a universal problem. *Higher Education Policy*, 9(3), 255–258. <https://doi.org/10.1057/palgrave.hep.8380033>

Liddicoat, Anthony J. 2016. *Language planning in universities: teaching, research and administration*. Current Issues in Language Planning, 17:3-4. pp: 231-241. Retrieved from: [wrap.warwick.ac.uk/84953](http://wrap.warwick.ac.uk/84953).

Llorent-Bedmar, Vicente. "Educational Reforms in Morocco: Evolution and Current Status." *International Education Studies* 7, no. 12 (2014): 95-105. <http://dx.doi.org/10.5539/ies.v7n12p95>

Lueddeke, G. R. (1999). Toward a Constructivist Framework for Guiding Change and Innovation in Higher Education. *The Journal of Higher Education*, 70(3), 235. <https://doi.org/10.2307/2649196>

Maddux, W. W., Bivolaru, E., Hafenbrack, A. C., Tadmor, C. T., & Galinsky, A. D. (2014). Expanding opportunities by opening your mind: Multicultural engagement predicts job market success through longitudinal increases in integrative complexity. *Social Psychological and Personality Science*, 5(5), 608-615.

Maddux, W. W., Lu, J. G., Affinito, S. J., & Galinsky, A. D. (2020). Multicultural experiences: a systematic review and new theoretical framework. *Academy of Management Annals*, (ja).

Malone, M.E. (2013). The essential of assessment literacy: Contrasts between testers and users. *Language Testing*. 30(3). 329-344.

Mansouri, Zoulal and Mohamed El Amine Moumine. "Outlook on Student Retention in Higher Education University Reforms in Morocco." *International Journal of Education and Literacy Studies* 5, no. 2 (2017): 53-60. <http://www.journals.aiac.org.au/index.php/IJELS/article/view/3405>

Marburger, D. R. (2009). Does Mandatory Attendance Improve Student Performance? *Journal of Economic Education*, 37(2), 148-155. [https://doi.org/10.1787/soc\\_glance-2008-12-en](https://doi.org/10.1787/soc_glance-2008-12-en).

Mediterranean Network of National Information Centres on the Recognition of Qualifications. "Moroccan Educational System: National Report." *The European Commission*, 2019. [http://www.meric-net.eu/files/fileusers/National\\_Report\\_MERIC-Net\\_Morocco\\_EN.pdf](http://www.meric-net.eu/files/fileusers/National_Report_MERIC-Net_Morocco_EN.pdf)

- Mellouk, M. (2011). La question des langues à l'école marocaine revisitée. [http://search.shamaa.org/PDF/Articles/MOAmM/AmMNo3Y2011/amm\\_2011-n3\\_105-132\\_fre.pdf](http://search.shamaa.org/PDF/Articles/MOAmM/AmMNo3Y2011/amm_2011-n3_105-132_fre.pdf)
- Ministry of Education (Ministère de l'Éducation Nationale, de la Formation Professionnelle, de l'Enseignement Supérieur et de la Recherche Scientifique). (2010). Textes Législatifs et Réglementaires Relatifs à l'Enseignement Supérieur.
- Ministry of National Education, Vocational Training, Higher Education and Scientific Research (MOE). 2021a. *Cahier de Notes Pédagogiques* (National Pedagogical Regulation's Guide for the Bachelor's Program).
- MOE. 2020. Challenges and opportunities in Morocco's Higher Education Reform. PowerPoint presentation. January 7, 2020.
- MOE. 2021b. *Descriptif du Module* (Module Descriptions). Course guidelines for English, semesters 1-4.
- Morchid, Nabil. "Investigating Quality Education in Moroccan Educational Reforms from 1999 to 2019." *IOSR Journal of Research & Method in Evaluation* 10, no. 1 (2020): 54-61.
- Mourhir, A., and I. Kissani. "Foundation Courses' Soft Skills Evaluation using Fuzzy Cognitive Maps." *2020 IEEE Global Engineering Education Conference (EDUCON)*, Porto, Portugal. 2020. <https://ieeexplore.ieee.org/abstract/document/9125133/authors#authors>
- Mousavi, S.A. (2009) An encyclopedic dictionary of language testing.(4th edition). Tehran: Rahnama Publications
- Mukoviz, O., Ihnatenko, N., & Kovtun, O. (2019). Selection of the Distance Learning Management System for Pedagogical Higher Education Institutions. *Open Educational E-Environment of Modern University, SPECIAL EDITION*, 215–221. <https://doi.org/10.28925/2414-0325.2019s20>.
- Naji, Abdennasser. "The repercussions of Covid-19 on the field of education." [preprint] *Cambridge Open Engage*, 2020. <https://www.cambridge.org/engage/coe/article-details/5eff40cc0d86550019b63312>
- Nesbit, J.C. & Adesope, O.O. (2006). Learning with concept and knowledge maps: A meta-analysis. *Review of Educational Research*, 76(3), 413-448.
- North Africa Post. "Covid-19: Over 2,260 schools in Morocco opt for remote learning." *Headlines, North Africa Post*, September 26, 2020. <https://northafricapost.com/44109-covid-19-over-2260-schools-in-morocco-opt-for-remote-learning.html>
- OECD. (2018). Comment résoudre l'inadéquation entre la formation et l'emploi au Maroc. Chapter 4 in *Examen multidimensionnel du Maroc (Volume 2)*.
- OECD–Public Management Committee. (1999). *Performance Contracting: lessons from performance contracting case studies: a framework for public sector performance contracting*. OECD, Paris,
- Okebukola, P. (2015). *Towards Innovative Models for Funding Higher Education in Africa* (P. Okebukola (Ed.)). Association of African University.

Ouakrime, M. *Evaluating Classroom teaching: focus on communication*. In proceedings of the 13th MATE annual conference, Morocco, 1993

Pereira Da Silva, T. 2017. "High and Persistent Skilled Unemployment in Morocco: Explaining it by Skills Mismatch." *OCP Policy Center Research Paper*. 2017.

<https://www.policycenter.ma/sites/default/files/OCPPC-RP1704.pdf>

PIRLS Encyclopedia: The Kingdom of Morocco (2016).

Popova, Anna, David K. Evans, and Violeta Arancibia. 2016. *Training Teachers on the Job: What Works and How to Measure It*. World Bank Policy Research Working Paper 7834, Background Paper to the 2018 World Development Report. Retrieved from:

<https://openknowledge.worldbank.org/handle/10986/25150>.

Prince, M. (2004). Does active learning work? A review of the research. *Journal of Engineering Education* 93, 223-231.

Razouki, A. L. Rafouk. W. Bouab. K. El Hariri, A. Alagui, and A Nafis. "University Drop-outs and Disparities: What's the Relationship." *Revista Romaneasca pentru Educatie Multidimensionala* 11(1):163.

2019. [https://www.researchgate.net/publication/331682335\\_University\\_Drop-outs\\_and\\_Disparities\\_What's\\_the\\_Relationship](https://www.researchgate.net/publication/331682335_University_Drop-outs_and_Disparities_What's_the_Relationship)

Ripamonti, E. (2018). Risk factors for dropping out of high school: A review of contemporary, international empirical research. *Adolescent Research Review*, 3(3), 321–338.

Riyami Bouchaïb, Khalifa Mansouri, and Franck Poirier. "Towards a Hybrid University Education, Integration of MOOCs in Initial Training Programs: A Case of a Big Private Education Structure in Morocco." *INTED 2016, IATED* (2016), 6132-6141.

Riyami, Bouchaïb, Khalifa Monsouri, and Frank Poirier. "Integration of MOOC in the Initial Training Courses at University in Morocco, Experiment Conducted in the Sectors of Public and Private Education." *World Congress Report on Education*, 2018.

Rogers, Everett M. *Diffusion of Innovations*. New York: Free Press, 2003.

Ruder, S. M., & Stanford, C. (2018). Strategies for training undergraduate teaching assistants to facilitate large active-learning classrooms. *Journal of Chemical Education*, 95(12), 2126-2133.

Saga, A. B. "Moroccan Universities Produce More Graduates without Jobs." *Morocco World News*, August 1, 2018. <https://www.moroccoworldnews.com/2018/08/25/1549/universities-produce-graduates-jobs/>

Salehi-Isfahani, D. N. Belhaj Hassine, and R. Assaad. "Equality of opportunity in educational achievement in the Middle East and North Africa." *The Journal of Economic Inequality* 12. 2013.

<https://link.springer.com/article/10.1007%2Fs10888-013-9263-6>

Saoudi, K., R. Chroqui, and C. Okar. "Student Achievement in Moroccan Student Achievement in Moroccan Educational Reforms: A Significant Gap Between Aspired Outcomes and Current Practices." *Interchange* 51. 2019.

<https://link.springer.com/article/10.1007/s10780-019-09380-2>

- Sawahel, Wagdy. "Ministry floats hybrid model for upcoming academic year." *University World News Africa*
- Schomburg, H. (2016). Carrying Out tracer studies: Guide to anticipating and matching skills and job. In *EU Law and Publication* (Vol. 6). <https://doi.org/10.2816/753132>
- Shulman, L. S. & Shulman, J. H. (2004) How and what teachers learn: a shifting perspective, *Journal of Curriculum Studies*, 36(2), 257–271.
- Seilstad, B. "Designing, Implementing, and Evaluating a Department-Wide Service-Learning Program for English Language Learners in Morocco." *Projects with Promise* Vol 18 No 1, 2014. <https://openjournals.libs.uga.edu/jheoe/article/view/1100>
- Shugart, S. (2006). The Challenge to Deep Change: A Brief Cultural History of Higher Education. *Planning for Higher Education*, 41(2), 7–17.
- Simonson, S. R. (Ed.). (2019). *POGIL: An introduction to process oriented guided inquiry learning for those who wish to empower learners*. Stylus Publishing, LLC.
- Slavin, R., (1991). Synthesis of research on cooperative learning. *Educational Leadership*, 48(5), 71-82.
- Snyder, J. L., Lee-Partridge, J. E., Jarmoszko, A. T., Petkova, O., & D'Onofrio, M. J. (2014). What Is the Influence of a Compulsory Attendance Policy on Absenteeism and Performance? *Journal of Education for Business*, 89(8), 433–440. <https://doi.org/10.1080/08832323.2014.933155>.
- Spendlove, M. (2007). Competencies for effective leadership in higher education. *International Journal of Educational Management*, 21(5), 407–417. <https://doi.org/10.1108/09513540710760183>
- Stevens Initiative Impact Report (2021) *Virtual Exchange in California Connects Students in California with Peers in MENA Region*. Retrieved from: <https://www.stevensinitiative.org/impact/virtual-language-exchange-connects-students-in-california-with-peers-in-mena-region/>
- Stiggins, R. (2017). *The Perfect Assessment System* (1st ed.). ASCD.
- Sutton, R. C., & Rubin, D. L. (2004). The GLOSSARI project: Initial findings from a system-wide research initiative on study abroad learning outcomes. *Frontiers: The Interdisciplinary Journal of Study Abroad*, 10(1), 65-82.
- Taqeem Initiative. "Boosting youth employability in Morocco – I: Qualitative assessment of MEDA Maroc's 100 hours to success programme." *International Labour Office, Employment Policy Department* – Geneva: ILO. 2015. [https://www.ilo.org/wcmsp5/groups/public/---ed\\_emp/documents/publication/wcms\\_450736.pdf](https://www.ilo.org/wcmsp5/groups/public/---ed_emp/documents/publication/wcms_450736.pdf)
- Teece, D. J. (2018). Managing the university: Why "organized anarchy" is unacceptable in the age of massive open online courses. *Strategic Organization*, 16(1), 92–102. <https://doi.org/10.1177/1476127017732760>
- Terenzini, P. T., & Pascarella, E. T. (1977). Voluntary freshman attrition and patterns of social and academic integration in a university: A test of a conceptual model. *Research in Higher Education*, 6(1), 25–43. <https://doi.org/10.1007/BF00992014>.

Tyran, K. L. (2017). Transforming students into global citizens: International service learning and PRME. *The International Journal of Management Education*, 15(2), 162-171

UNESCO Institute for Statistics. "Morocco." *United Nations Educational, Scientific and Cultural Organization*. <http://uis.unesco.org/country/MA>

UNESCO. (2012). Rapport de recherche sur Les réformes des systèmes de gouvernance dans l'enseignement supérieur au Maroc. <http://www.unesco.org/new/fileadmin/MULTIMEDIA/FIELD/Dakar/pdf/REFORMEGOUVERNANCEMAROCnov2012.pdf>

USAID. "USAID Distance Education Activity Prepare Morocco's Ministry of Education for Virtual Learning during Coronavirus Disruptions." USAID, April 3, 2020. <https://www.usaid.gov/morocco/program-updates/apr-2020-usaid-distance-education-activities-ministry-education-coronavirus-disruptions>

Uys, Philip, and Mike Douse. 2020. *The Post-Pandemic Blended University in the Time of Digitisation*. Conference paper, Australasian Society for Computers in Learning in Tertiary Education. Retrieved from: [https://www.researchgate.net/publication/346482465\\_THE\\_POST-PANDEMIC\\_BLENDED\\_UNIVERSITY\\_IN\\_THE\\_TIME\\_OF\\_DIGITISATION](https://www.researchgate.net/publication/346482465_THE_POST-PANDEMIC_BLENDED_UNIVERSITY_IN_THE_TIME_OF_DIGITISATION)

Ward, T. (2013). Six Ways to Use Quick Writes to Promote Learning. *On Course Workshops*. <http://oncourseworkshop.com/life-long-learning/six-ways-use-quick-writes-promote-learning/>

Wheeler, L. B., Clark, C. P., & Grisham, C. M. (2017). Transforming a traditional laboratory to an inquiry-based course: Importance of training TAs when redesigning a curriculum. *Journal of Chemical Education*, 94(8), 1019-1026.

Wieman, C., & Gilbert, S. (2014). The teaching practices inventory: A new tool for characterizing college and university teaching in mathematics and science. *CBE—Life Sciences Education*, 13(3), 552-569.

Wood, R., & Shirazi, S. (2020). A systematic review of audience response systems for teaching and learning in higher education: The student experience. *Computers and Education*, 153(September 2019), 103896. <https://doi.org/10.1016/j.compedu.2020.103896>.

World Bank Group. "Individuals using the Internet (% of population) – Morocco." *The World Bank Group*, 2020. <https://data.worldbank.org/indicator/IT.NET.USER.ZS?locations=MA>

World Bank. (2012). *Universities through the Looking Glass: Benchmarking University Governance to Enable Higher Education Modernization in MENA*.

World Bank. (2019). *Improving Higher Education Performance in Kenya: A Policy Report*. World Bank.

Yeou, Mohamed. 2016. *A Comparison of Blended and Face-to-face Approaches to Teaching "Research Methods" to Undergraduate Students*. *Languages and Linguistics* 38, 2016. pp. 93-108.

Yue, H., & Hart, S. M. (2017). Service-Learning and Graduation: Evidence from Event History Analysis. *Michigan Journal of Community Service Learning*, 23(2), 24-41.

Zaidoune, Said. 2020. *A Citizenship Approach to Learning and Engagement in Moroccan Higher Education*. In: Belhiah, Hassan, et al. (Eds.) 2020. *English Language Teaching in Moroccan Higher Education*. Singapore: Springer Nature Singapore Pte Ltd.

Zeddari, I. “The End-of-Study Project in English Departments in Morocco: The Supervisor’s Perspective.” *Journal of Applied Languages and Culture Studies*. No 1 (2018). 2018.  
<https://revues.imist.ma/index.php/JALCS/article/view/13168>

Zyad, Hicham. 2016. *The Effects of a Blended Writing Course on Students’ Writing Ability*. *Languages and Linguistics* 38, 2016. pp. 23-40.

# ANNEXES

## ANNEX I: UNIVERSITY STRUCTURE AND GOVERNANCE

The Moroccan higher education system is broken into two segments: university establishments and private higher education establishments. There are four types of universities: public, public with private management, those created within the framework of the public/private partnership, and private. Public university education in Morocco is provided throughout the Kingdom by 12 public universities. All universities, regardless of their public/private status, are under the supervision of the Ministry of National Education, Vocational Training, Higher Education and Scientific Research.<sup>164</sup>

Within each university, there are a number of establishments (also called faculties, schools, or institutes). As of the 2020–2021 academic year, there are 180 university establishments in Morocco. This is up from 142 in the 2019–2020 academic year, as indicated in Exhibit 35. As of the 2019–2020 academic year, the most common establishments were Engineering Sciences Schools (20), Faculties of Law, Economic, and Social Sciences (18), Faculties of Letters and Human Sciences (15), and Higher Schools of Technology (15).<sup>165</sup> Within each establishment, there are a number of basic study *licences* (*licence* program cycles) that a student can choose from. For example, the Faculties of Sciences include life sciences, earth and universe sciences, physical matter sciences, material science chemistry, mathematical sciences and applications, and mathematical and computer science.

In terms of the number of students, despite the increase in the number of students in the system between 2016–2017 (approximately 4.2 percent), public universities still made up 78 percent of the students who attended higher education institutions in 2016–2017, followed by vocational training (14 percent), management training (3 percent), and private universities (3 percent).<sup>166</sup>

Exhibit 35: Morocco higher education establishments by the numbers<sup>167</sup>

HIGHER EDUCATION ESTABLISHMENTS	2018-2019	2019-2020
<b>Number of establishments</b>		
University Establishments	129	142
Private Higher Education Establishments*	163	161
<b>Number of New Students Enrolled</b>		
University Establishments	240,152	257,782
Private Higher Education Establishments**	10,528	13,309
<b>Global Student Numbers</b>		
University Establishments	876,005	921,944



<b>HIGHER EDUCATION ESTABLISHMENTS</b>	<b>2018-2019</b>	<b>2019-2020</b>
Private Higher Education Establishments**	49,284	53,467
<b>Number of Permanent Professors</b>		
University Establishments	14,964	14,964
Private Higher Education Establishments**	2,368	2,394
<b>Number of Graduate Students</b>		
University Establishments	111,843	119,263
Private Higher Education Establishments**	10,184	11,624

\* including Al Akhawayne university.

\*\* including establishments created under the Partnership and Al Akhawayne university.

In the public universities, the courses are organized by semesters; each academic year consists of two semesters, each of which lasts 16 weeks. Generally, 4 modules (disciplinary and compulsory) are scheduled in each semester.

Moroccan higher education cycles follow a License-Master-Doctorate (LMD) system. Under this system, students must take at least 4 semesters for a degree in general university studies (*Diplôme d'Etudes Universitaires Générales* or DUEG) or degree of general professional studies (*Diplôme d'Etudes Universitaires Professionnelles* or DUEP). Depending on which degree path they follow, they then take an additional two semester for their Professional License, Basic Studies License, or Scientific and Technical License. This amounts to a total of six semesters in the Bachelor cycle. Students must complete four semesters for a Master's degree. The doctoral cycle then lasts 3-5 years.<sup>168,169,170,171</sup>

Exhibit 36 shows the number of students enrolled in each establishment in both open and regulated access establishments.

Exhibit 36: Enrolled students by university establishment

FIELD OF STUDY	2018-2019			2019-2020		
	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL
<b>Open access university establishments</b>						
Faculties of Economic, Law and Social Sciences	63,083	61,298	124,381	69,695	68,603	138,298
Faculties of Letters and Human Sciences	26,426	30,089	56,515	26,722	31,773	58,495
Faculties of Sciences	15,612	15,936	31,548	15,462	16,246	31,708
<b>Total</b>	<b>105,121</b>	<b>107,323</b>	<b>212,444</b>	<b>171,879</b>	<b>116,622</b>	<b>228,501</b>
<b>Regulated access university establishments</b>						
Sciences and Techniques	3,307	5,108	8,415	3,125	4,566	7,691
Medicine and Pharmacy	1,099	1,556	2,655	1,216	1,616	2,832
Dental Medicine	126	155	281	103	169	272
Engineering Sciences	1,741	1,621	3,362	2,112	1,941	4,053
Trade and Management	1,311	1,957	3,268	1,512	2,143	3,655
Technology	3,368	4,142	7,510	3,217	4,307	7,524
Education Sciences, ENS and ENSET	541	1,402	1,943	106	2,152	2,258
Paramedical	28	106	134	36	139	175
Sports Sciences	93	47	140	49	48	97
<b>Total</b>	<b>11,614</b>	<b>16,094</b>	<b>27,708</b>	<b>12,094</b>	<b>17,187</b>	<b>29,281</b>

Universities are public entities with legal personality and educational, administrative, and financial autonomy.<sup>172</sup> Educational or pedagogical autonomy provides universities with ability to design the programs they offer, propose and adopt courses, and create university diplomas. Administrative and financial autonomy allows universities to:

- Handle all financial management, human resources, and heritage.
- Establish a university council that deliberates on all questions concerning the management of the university: creation of training courses and university structures, distribution of human and financial resources, university development strategy, etc.
- Acquire a stake in innovative companies and the creation of subsidiary companies.

- Diversify the sources of financing (paying continuing training, provision of services against payment, creation of incubators for innovative companies, exploitation of patents and licenses, etc.).
- Create incubators for innovative businesses.
- Exploit patents and licenses.
- Market the products of these activities.
- Acquire stakes in public and private companies.
- Create subsidiary companies.

## CURRICULAR GOVERNANCE

The 1975 higher education law stipulates the procedures for curriculum development and student evaluations in higher education among all universities except for Al Akhawayn University, which is privately-run (though public) and autonomous.<sup>173</sup>

Today, the university councils evaluate the curricula in public universities. Every four years, the university receives a letter from the Ministry asking them to evaluate the approved programs. The department heads and program heads within the university evaluate the content relevant to their departments on the following criteria: implementation of the program, opinion of students and/or laureates (optional), opinion of socio-economic partners (optional), and assessment and next steps. Implementation of the program includes eight sub-criteria: admission procedures, completion of the program, assessment of knowledge, adequacy of human resources, adequacy of material and logistical resources, partnership and cooperation, management of the program, and follow-up of laureates. Then, the University Council approves the evaluations and sends them to the Ministry.

Degree programs are accredited by the State. Accreditation applications are evaluated by the National Agency for Evaluation and Quality Assurance of Higher Education and Scientific Research (ANEAQ), and accreditation is granted by the Ministry.<sup>174</sup> ANEAQ's role is to improve and ensure the quality, competitiveness, and diversity of degree programs; to promote scientific research; and to adapt programs to labor market needs. To do this, the agency carries out evaluations on the higher education and scientific research systems.<sup>175</sup>

The Ministry of National Education, Vocational Training and Higher Education along with the Higher Council of Education and General Confederation of Enterprises of Morocco have established a national qualifications framework. This framework aims to make the higher education system learner-centered, establish a dynamic relationship between higher education and labor market needs, and ensure better fluidity between courses in different academic sectors.<sup>176</sup>

# ANNEX 2: HISTORY OF MOROCCAN UNIVERSITY REFORM

## THE 1999–2009 REFORM PLAN.

In 1999, the Special Commission for Education and Training (COSEF) was created and they developed the National Charter for Education and Training (NCET or CNEF). This charter was implemented throughout 1999-2009, in what was declared the “Decade of Education.”<sup>177,178</sup> This reform had a wide range of goals, including to create an accredited and internationally competitive system; increase the autonomy of universities; integrate academic units to allow students to move between degree programs; to prepare students with the skills they would need for the job market; to prepare students with the skills and training necessary for graduate school; to develop students methodological, linguistic, and communicative skills; to have university teachers complete research and disseminate knowledge; to stay true to Morocco’s heritage and cultural values while embracing modernity; and to develop a spirit of dialogue and acceptance of diversity.<sup>179,180,181,182</sup> One of the most significant effects of this reform was the introduction of the License-Master-Doctorate (LMD) system in 2003-2004.

In addition, the CNEF reform revised the *baccalaureate* exam to increase the prestige of qualifications; changed the educational architecture into cycles, modules, and courses; granted universities pedagogical, administrative, and financial autonomy; and granted students greater flexibility.<sup>183,184,185</sup>

Ultimately, this reform was not successful. While enrollment rates increased significantly, qualitative data indicated that Moroccan students still had poor learning skills compared to their peers in other countries.<sup>186,187</sup> There are five main causes identified for this failure. First, secondary education remained inadequate, meaning that large numbers of students entered university unprepared and then graduated into unemployment.<sup>188</sup> Second, the reform was a top-down process. Students and teachers were not consulted. Teachers were unprepared for the reform and, as a result, teaching methods were not altered to become learner-centered as the CNEF outlined.<sup>189,190,191</sup> Third, changes were made to increase the appearance of prestigiousness without being backed up by logical processes. In particular, the LMD process is criticized for not having been implemented in a way that made sense with university structures at the time.<sup>192</sup> Additionally, while “autonomy was granted” to universities and students, this didn’t pan out in practice. El Masrar states that, “neither the student nor the university have the opportunity to choose.”<sup>193</sup> Fourth, the curriculum and teaching practices did not change along with the architectural change to modularization. With outdated curricular content, rising rates of exams, and poor implementation, the modular system wasn’t able to reach its potential.<sup>194</sup> Fifth, the plan had over-ambitious goals that were not appropriately resourced or assessed to evaluate and correct the actions.<sup>195</sup>

## THE 2009–2012 EMERGENCY PLAN

The Emergency Plan was implemented as a correction to the unsuccessful implementation of the CNEF from 1999–2009. This was one of the most rigorous education reforms the country has seen, and it utilized significant resources from a number of international donors.<sup>196</sup> It emphasized quality, equality, generalized access to education, and the promotion of scientific research.<sup>197,198</sup> In particular, this reform tried to reduce drop-out rates by providing free meals and transportation to students in rural areas and increasing the number of scholarships and boarding schools.<sup>199</sup>

This reform did see some successes, though mostly in quantity rather than quality. Under this reform plan, enrollment increased significantly (by over 55 percent at the mid-term assessment) across universities. The drop-out rate decreased 4 points from 22 percent to 18 percent after the first year of the plan. Under this plan, 5 universities implemented academic tutoring and psychosocial support, though those provided psychosocial support were often not qualified to do so. There was also a planned increase in university boarding capacity (by 50 percent) and the number of grants provided to students (by 65 percent) over the course of this reform.<sup>200</sup> As of 2015, 250,000 university students benefited from grants.<sup>201</sup>

Despite its unprecedented high budget, this reform failed as well and the initial reduction in dropout rates did not persist. This failure was due to irresponsible use of funds as well as, once again, the lack of involvement of teachers, students, and other stakeholders.<sup>202,203</sup>

## THE 2015–2030 STRATEGIC VISION

After the failure of the Emergency Plan, the Supreme Council for Education, Training, and Scientific Research created a new 15-year strategic vision for education reform. This vision calls for an education system based on equity and quality of opportunity, a focus on research and innovation, the advancement and integration of the individual and society, and efficient leadership.<sup>204,205,206</sup>

One piece of improving the quality of education is improving the quality of teachers. This vision requires an update of job descriptions in the education sector to place an emphasis on a person's competency and sense of responsibility. This plan also prioritizes the empowerment of education professionals and calls for the renovation of the teaching, training, and management professions.<sup>207</sup> Specifically, it calls for:

- Redefining the role of education professionals to keep up with the changing education system.
- Making initial training mandatory for all education professions and encouraging specialization for primary education.
- Offering diverse forms of continuous training and professional development in order to encourage innovation and initiative in teaching practices.
- Creating structures for continuous professional development throughout a teacher's career.
- Establishing good governance of the management of educator professional development, which is decentralized and involves consultation with educators and their union representatives.
- Linking promotion to merit, performance, ethics, and accountability.<sup>208</sup>

One of the fundamental goals of the vision is to reduce dropout rates, and psychosocial support is seen as an important aspect to doing this. The vision suggests that students should be involved in the management of their institutions and that there should be mechanisms to help students deal with stress and conflict management, such as counseling centers.<sup>209</sup>

# ANNEX 3: E-LEARNING IN THE MOROCCAN UNIVERSITY SYSTEM

## UNIVERSITY SHIFT TO E-LEARNING (POLICY BEFORE AND UNDER COVID-19)

### BEFORE COVID-19

Part of the 1999-2009 reform plan was the integration of information communications, and technology (ICT) into teaching at universities, with the goal to have ICT-based assessment, implement regular ICT training for teachers, strengthen student ICT skills, use ICT to modernize teaching practices, and more. Additionally, the 2015–2030 Strategic Vision framework outlines distance learning as a complement to in-person learning. The framework states that it is the government’s role to finance distance learning, support the production of digital resources and the training of specialists in the field, and promote distance learning.

A number of projects were implemented to work towards these goals, including the Generalization of ICT in Education (GENIE) project, the INJAZ project, which aimed to provide low-cost computers and one year of free broadband to universities, and the Moroccan Academic Research Network (MARWAN) project, which aimed to provide all higher education institutions with internet access. Additionally, Hassan II University and Cadi Ayyad University launched distance learning platforms, University Ibn Zühr Agadir worked with the Ministry of Higher Education to create a Moroccan “virtual campus,” and Mohammed V University created a Massive Open Online Course (MOOC) platform. Despite all of these developments, most teaching is still happening face-to-face in Moroccan universities, and there appears to be a lack of motivation from teachers and students to utilize ICT.<sup>210</sup>

The country was working with international universities to enhance Moroccan universities’ e-learning pedagogy. Part of this initiative involved launching the first Interactive Digital Center at Mohammed VI Polytechnic University.<sup>211</sup> At Hassan II University in Casablanca, some faculty received training on e-learning. However, prior to schools closing under COVID-19, there was no use of e-learning at this university.<sup>212</sup>

### UNDER COVID-19

On March 16, 2020, three days after the Morocco government suspended face-to-face classes, schools in Morocco from primary through higher education shifted to online and television-based distance learning. Most Moroccan universities shifted to online education using online learning portals, including Microsoft Teams and Google Classroom.<sup>213,214</sup> These digital platforms allowed teachers to upload lectures and communicate with students, and for students to complete assignments, deliver presentations, and take quizzes.<sup>215,216</sup>

A number of television channels were dedicated to educational programming during COVID-19, including “Arryadia,” the sports channel, which broadcast university courses related to English language studies. The Ministry of Education planned to convert all aired lessons into digital resources that would be available on the Higher Education ministerial department’s website after they were broadcast on television.<sup>217,218,219</sup>

The shift to online learning was supported by the MARWAN project, which provided universities with reliable high-capacity Internet and access to resources on online education.<sup>220</sup> Additionally, the Ministry of Education launched training programs through the GENIE program to help teachers enhance their digital skills.<sup>221</sup> Some universities, including Mohammed VI Polytechnic University (partnership non-profit university) and the University of Hassan II (public university) provided students access to educational website and platforms free of charge. Teachers were also provided free access to e-learning platforms and academic article databases that they can access from home.<sup>222</sup>

Despite this comprehensive effort, there were issues with this implementation. Many teachers do not have the skills to use technology-based materials,<sup>223</sup> and in at least one case, training on e-learning for teachers was postponed due to the pandemic.<sup>224</sup> At Hassan II University, the lack of comfort with e-learning platforms from professors and some technical defects with the e-learning platform resulted in most professors sending their lessons in Microsoft Word or PowerPoint documents via email to students. On the other hand, many universities, such as Chouaib Doukkali University, have succeeded in transitioning to e-learning using the Microsoft Teams platform.<sup>225</sup>

Yamina El Kirit El Allama, an international higher education advisor and consultant and former vice dean at Mohammed V University said that distance learning in the spring was not a success, and that “Morocco does still not have the ICT capabilities to use online education even at universities.”<sup>226</sup> Furthermore, some early data suggests that few university students were accessing the digital platforms, and those that were doing so did not spend much time on them.<sup>227</sup> Beginning at the start of the school year in October 2020, university students were given a choice of remote or in-person courses, or mixed.<sup>228</sup>

## CURRENT PENETRATION OF TECHNOLOGY/INFRASTRUCTURE FOR REMOTE LEARNING IN MOROCCO

### TECHNOLOGY ACCESS

World Bank 2019 data indicate that 74 percent of the Moroccan population uses the Internet. This is not consistent across economic classes. Internet penetration is 87 percent for high-income Moroccans, while 45 percent for middle-income and only 16 percent for low income.<sup>229</sup>

Internet access and reliability is also lower in rural households than in urban households (47 percent versus 76 percent respectively, as of 2015), resulting in students in rural areas struggling to participate in digital learning.<sup>230,231</sup> Two main factors contribute to this. First, the prices of subscriptions and equipment is much more expensive, compared to the average income, in rural areas. As of 2016, an average household in Morocco would have to spend about a quarter of its disposable income for an Internet subscription.<sup>232</sup> Additionally, there is a lack of quality and coverage of mobile broadband infrastructure in rural areas. As of 2016, Morocco had one of the lowest rates of broadband penetration in the MENA region (17 percent for fixed broadband, 41 percent for mobile broadband). Most broadband coverage is concentrated in northern Morocco, around major cities and routes.<sup>233</sup> The Moroccan government had a goal for all Moroccans to have access to broadband Internet by 2020, but given the 2019 access numbers, it does not seem that this was achieved.<sup>234,235</sup>

In terms of tools to access distance learning, mobile phones have reached all of Moroccan society, including remote regions. However, without widespread broadband access, these phones can primarily



be used for voice and text messaging.<sup>236</sup> Additionally, 97 percent of the Moroccan territory receives television broadcasts.<sup>237</sup>

## POTENTIAL FOR REMOTE LEARNING

The MOE is working with USAID in a number of ways to develop the capacity for digital learning in teacher training programs. The Higher Education Partnership for Morocco (USAID-funded) is prioritizing e-learning as a part of a blended approach to teaching training. Similarly, the Reading for Success National Program for Reading (USAID-funded) is working to develop an online program for teachers' professional development.<sup>238</sup> A 2019 report building out the government's higher education reform section of the Strategic Vision 2015-2030 calls for training to encourage and support teachers in adopting new learning technology, teaching in a blended learning format, and modifying pedagogical content for digital learning.<sup>239</sup>

Anecdotal evidence suggests some professors are resistant to using e-learning technology. Part of this is due to teachers being resistant to transitioning away from traditional methods of teaching, which they are most comfortable with, and learning new technology. Another area of resistance is that when lessons are made digital, they are documented, meaning that professors could be evaluated in a way that wasn't possible before.

One study of undergraduate students in public and private universities found that students were motivated to participate in blended learning and appreciated teaching approaches used in MOOCs (including the use of media and increased interaction between learners). They found that learners are more successful in MOOCs if they have had prerequisites in the subject matter, and that MOOCs move at a faster pace than face-to-face courses. The study's sample was not representative and was limited in size (n=77), so more research is needed. The authors plan to do an additional study with 150 students divided into five groups of learners.<sup>240</sup>

The same authors have proposed a hybrid teaching process that combines face-to-face and distance learning for the length of an entire engineering or business management degree program at a private higher education institution in Morocco. This proposed system begins with 100 percent face-to-face courses, and gradually increases until the final year, when students would utilize MOOCs for 75 percent of their learning. To encourage effective use of these platforms, they propose periodic and ongoing training for teachers on the MOOC platforms as well as the distribution of broadband-connected tablets or mini-netbooks to students. They suggest that such a model would have significant advantages (including introducing learners to more diverse experiences and providing teachers new ways to improve their teacher methods) and saving (including freeing up space on campuses and requiring less travel for foreign teachers).<sup>241</sup>

# ENDNOTES

- <sup>1</sup> Conseil supérieur de l'éducation, de la formation et de la recherche scientifique (CSEFRS). (2015). *Vision stratégique de la réforme 2015-2030: pour une école de l'équité, de la qualité et de la promotion*. Rabat, Morocco
- <sup>2</sup> Mohammed Lazrak and Yahya Yechouti, "Issues in Moroccan Higher Education," *International Journal of English Language & Translation Studies* 5, no. 2 (2017): 86-93.
- <sup>3</sup> Vicente Llorent-Bedmar, "Educational Reforms in Morocco: Evolution and Current Status,"
- <sup>4</sup> Conseil Supérieur de l'Éducation, de la Formation et de la Recherche Scientifique. "L'enseignement supérieur au Maroc: Efficacité, efficacité et défis du système universitaire à accès ouvert." *Conseil Supérieur de l'Éducation, de la Formation et de la Recherche Scientifique*, 2018. <https://www.csefrs.ma/wp-content/uploads/2018/10/Rapport-Enseignement-superieur-Fr-03-10.pdf>
- <sup>5</sup> Conseil Supérieur de l'Éducation, de la Formation et de la Recherche Scientifique. "L'enseignement supérieur au Maroc: Efficacité, efficacité et défis du système universitaire à accès ouvert." *Conseil Supérieur de l'Éducation, de la Formation et de la Recherche Scientifique*, 2018. <https://www.csefrs.ma/wp-content/uploads/2018/10/Rapport-Enseignement-superieur-Fr-03-10.pdf>
- <sup>6</sup> Razouki, A. L. Rafouk. W. Bouab. K. El Hariri, A. Alagui, and A Nafis. "University Drop-outs and Disparities: What's the Relationship." *Revista Romaneasca pentru Educatie Multidimensionala* 11(1):163. 2019. [https://www.researchgate.net/publication/331682335\\_University\\_Drop-outs\\_and\\_Disparities\\_What's\\_the\\_Relationship](https://www.researchgate.net/publication/331682335_University_Drop-outs_and_Disparities_What's_the_Relationship)
- <sup>7</sup> Razouki, A. L. Rafouk. W. Bouab. K. El Hariri, A. Alagui, and A Nafis. "University Drop-outs and Disparities: What's the Relationship." *Revista Romaneasca pentru Educatie Multidimensionala* 11(1):163. 2019. [https://www.researchgate.net/publication/331682335\\_University\\_Drop-outs\\_and\\_Disparities\\_What's\\_the\\_Relationship](https://www.researchgate.net/publication/331682335_University_Drop-outs_and_Disparities_What's_the_Relationship)
- <sup>8</sup> Conseil Supérieur de l'Éducation, de la Formation et de la Recherche Scientifique. "L'enseignement supérieur au Maroc: Efficacité, efficacité et défis du système universitaire à accès ouvert." *Conseil Supérieur de l'Éducation, de la Formation et de la Recherche Scientifique*, 2018. <https://www.csefrs.ma/wp-content/uploads/2018/10/Rapport-Enseignement-superieur-Fr-03-10.pdf>
- <sup>9</sup> Razouki, A. L. Rafouk. W. Bouab. K. El Hariri, A. Alagui, and A Nafis. "University Drop-outs and Disparities: What's the Relationship." *Revista Romaneasca pentru Educatie Multidimensionala* 11(1):163. 2019. [https://www.researchgate.net/publication/331682335\\_University\\_Drop-outs\\_and\\_Disparities\\_What's\\_the\\_Relationship](https://www.researchgate.net/publication/331682335_University_Drop-outs_and_Disparities_What's_the_Relationship)
- <sup>10</sup> Conseil Supérieur de l'Éducation, de la Formation et de la Recherche Scientifique. "L'enseignement supérieur au Maroc: Efficacité, efficacité et défis du système universitaire à accès ouvert." *Conseil Supérieur de l'Éducation, de la Formation et de la Recherche Scientifique*, 2018. <https://www.csefrs.ma/wp-content/uploads/2018/10/Rapport-Enseignement-superieur-Fr-03-10.pdf>
- <sup>11</sup> Conseil Supérieur de l'Éducation, de la Formation et de la Recherche Scientifique. "L'enseignement supérieur au Maroc: Efficacité, efficacité et défis du système universitaire à accès ouvert." *Conseil Supérieur de l'Éducation, de la Formation et de la Recherche Scientifique*, 2018. <https://www.csefrs.ma/wp-content/uploads/2018/10/Rapport-Enseignement-superieur-Fr-03-10.pdf>
- <sup>12</sup> Conseil Supérieur de l'Éducation, de la Formation et de la Recherche Scientifique. "L'enseignement supérieur au Maroc: Efficacité, efficacité et défis du système universitaire à accès ouvert." *Conseil Supérieur de l'Éducation, de la Formation et de la Recherche Scientifique*, 2018. <https://www.csefrs.ma/wp-content/uploads/2018/10/Rapport-Enseignement-superieur-Fr-03-10.pdf>
- <sup>13</sup> Conseil Supérieur de l'Éducation, de la Formation et de la Recherche Scientifique. "L'enseignement supérieur au Maroc: Efficacité, efficacité et défis du système universitaire à accès ouvert." *Conseil Supérieur de l'Éducation, de la Formation et de la Recherche Scientifique*, 2018. <https://www.csefrs.ma/wp-content/uploads/2018/10/Rapport-Enseignement-superieur-Fr-03-10.pdf>
- <sup>14</sup> Saoudi, K., R. Chroqui, and C. Okar. "Student Achievement in Moroccan Student Achievement in Moroccan Educational Reforms: A Significant Gap Between Aspired Outcomes and Current Practices." *Interchange* 51. 2019. <https://link.springer.com/article/10.1007/s10780-019-09380-2>
- <sup>15</sup> Conseil Supérieur de l'Éducation, de la Formation et de la Recherche Scientifique. "L'enseignement supérieur au Maroc: Efficacité, efficacité et défis du système universitaire à accès ouvert." *Conseil Supérieur de l'Éducation, de la Formation et de la Recherche Scientifique*, 2018. <https://www.csefrs.ma/wp-content/uploads/2018/10/Rapport-Enseignement-superieur-Fr-03-10.pdf>
- <sup>16</sup> OECD. "Les voies de développement, Examen multidimensionnel du Maroc (Volume 2) Analyse approfondie et recommandations." Chapitre 4. Comment résoudre l'inadéquation entre la formation et l'emploi au Maroc? <https://www.oecd-ilibrary.org/sites/9789264298699-7-fr/index.html?itemId=/content/component/9789264298699-7-fr>
- <sup>17</sup> Saoudi, K., R. Chroqui, and C. Okar. "Student Achievement in Moroccan Student Achievement in Moroccan Educational Reforms: A Significant Gap Between Aspired Outcomes and Current Practices." *Interchange* 51. 2019. <https://link.springer.com/article/10.1007/s10780-019-09380-2>
- <sup>18</sup> Vicente Llorent-Bedmar, "Educational Reforms in Morocco: Evolution and Current Status,"
- <sup>19</sup> Youssef El Kaidi. "Educational Reforms in Morocco: A Chronology of Failures," *Inside Arabia*, November 2, 2018, <https://insidearabia.com/educational-reforms-morocco-failures/>.
- <sup>20</sup> Hatim, 2020

- 
- <sup>21</sup> Yahia Hatim. "Unemployment Rate in Morocco Highest Among University Graduates," *Morocco World News*, February 19, 2020, <https://www.moroccoworldnews.com/2020/02/294060/unemployment-rate-in-morocco-highest-among-university-graduates/>
- <sup>22</sup> Ahlam Ben Saga, "Moroccan Universities Produce More Graduates without Jobs," *Morocco World News*, August 1, 2018, <https://www.moroccoworldnews.com/2018/08/251549/universities-produce-graduates-jobs/>
- <sup>23</sup> OECD. "Les voies de développement, Examen multidimensionnel du Maroc (Volume 2) Analyse approfondie et recommandations." Chapitre 4. Comment résoudre l'inadéquation entre la formation et l'emploi au Maroc ? <https://www.oecd-ilibrary.org/sites/9789264298699-7-fr/index.html?itemId=/content/component/9789264298699-7-fr>
- <sup>24</sup> Pereira Da Silva, T. 2017. "High and Persistent Skilled Unemployment in Morocco: Explaining it by Skills Mismatch." OCP Policy Center Research Paper. 2017. <https://www.policycenter.ma/sites/default/files/OCPPC-RPI704.pdf>
- <sup>25</sup> British Council. "English and Soft Skills in the Maghreb: Research Report." British Council. 2016. <https://www.britishcouncil.org/sites/default/files/english-soft-skills-maghreb-research-report.pdf>
- <sup>26</sup> Chaibate, H., A. Hadek, S. Ajana, S. Bakkali, and K. Faraj. "A Comparative Study of the Engineering Soft Skills Required by Moroccan Job Market." *International Journal of Higher Education* v9 n1. 2020. <https://eric.ed.gov/?id=EJ1237106>
- <sup>27</sup> Mediterranean Network of National Information Centres on the Recognition of Qualifications. "Moroccan Educational System: National Report." *The European Commission*, 2019. [http://www.meric-net.eu/files/fileusers/National\\_Report\\_MERIC-Net\\_Morocco\\_EN.pdf](http://www.meric-net.eu/files/fileusers/National_Report_MERIC-Net_Morocco_EN.pdf)
- <sup>28</sup> Zoulal Mansouri and Mohamed El Amine Moumine, "Outlook on Student Retention in Higher Education University Reforms in Morocco," *International Journal of Education and Literacy Studies* 5, no. 2 (2017): 53-60.
- <sup>29</sup> ICEF Monitor, "Morocco still aiming to boost education quality and access," *ICEF Monitor*, 2015. <https://monitor.icef.com/2015/02/morocco-still-aiming-boost-education-quality-access/>
- <sup>30</sup> Youssef El Kaidi. "Educational Reforms in Morocco"
- <sup>31</sup> Khouloud El Masrar, "The Current University Reforms in Morocco"
- <sup>32</sup> Youssef El Kaidi. "Educational Reforms in Morocco"
- <sup>33</sup> Abdallah Ghaicha, "Moroccan Higher Education System"
- <sup>34</sup> Mohammed Lazrak and Yahya Yechouti, "Issues in Moroccan Higher Education,"
- <sup>35</sup> Khouloud El Masrar, "The Current University Reforms in Morocco"
- <sup>36</sup> Youssef El Kaidi. "Educational Reforms in Morocco"
- <sup>37</sup> Faculty focus group.
- <sup>38</sup> Abdallah Ghaicha, "Moroccan Higher Education System"
- <sup>39</sup> Youssef El Kaidi. "Educational Reforms in Morocco"
- <sup>40</sup> Abdallah Ghaicha, "Moroccan Higher Education System"
- <sup>41</sup> Hssein Khtou, "Challenges to the Mission of English Department in Morocco."
- <sup>42</sup> Youssef El Kaidi. "Educational Reforms in Morocco"
- <sup>43</sup> Nabil Morchid, "Investigating Quality Education in Moroccan Educational Reforms from 1999 to 2019,"
- <sup>44</sup> Nabil Morchid, "Investigating Quality Education in Moroccan Educational Reforms from 1999 to 2019,"
- <sup>45</sup> Amy Porter, Kouider Mokhtari, and Khadija Saoudi. "Morocco Higher Education Situational Analysis Report." *USAID*, 2019.
- <sup>46</sup> Kezar, A. (2001). *Understanding and Facilitating Organizational Change in the 21st Century: Recent Research and Conceptualizations*. Jossey-Bass.
- <sup>47</sup> Lewis, L. S., & Altbach, P. G. (1996). Faculty versus administration: a universal problem. *Higher Education Policy*, 9(3), 255–258. <https://doi.org/10.1057/palgrave.hep.8380033>
- <sup>48</sup> Spendlove, M. (2007). Competencies for effective leadership in higher education. *International Journal of Educational Management*, 21(5), 407–417. <https://doi.org/10.1108/09513540710760183>
- <sup>49</sup> El Kaidi, Y. (2018, November 2). *Educational Reforms in Morocco: A Chronology of Failures*. Inside Arabia. <https://insidearabia.com/educational-reforms-morocco-failures/>
- <sup>50</sup> Mansouri, Z., & Moumine, M. E. A. (2017). Outlook on Student Retention in Higher Education University Reforms in Morocco. *International Journal of Education and Literacy Studies*, 5(2), 53. <https://doi.org/10.7575/aiac.ijels.v.5n.2p.53>
- <sup>51</sup> King Mohammed VI. (2013, August 20). *Speech of His Majesty the King to Nation on Occasion of 60th Anniversary of Revolution of King and People*.
- <sup>52</sup> Lazrak, M., & Yechouti, Y. (2017). Issues in Moroccan Higher Education. *International Journal of English Language and Translation Studies*, 5(1), 86–93.

- 53 Lueddeke, G. R. (1999). Toward a Constructivist Framework for Guiding Change and Innovation in Higher Education. *The Journal of Higher Education*, 70(3), 235. <https://doi.org/10.2307/2649196>
- 54 Everley, M. L. (1996). Making the Transition from Soft to Hard Funding: The Politics of Institutionalizing Instructional Development Programs. *To Improve the Academy*, 15(20201217). <https://doi.org/10.3998/tia.17063888.0015.017>
- 55 World Bank. (2012). *Universities through the Looking Glass: Benchmarking University Governance to Enable Higher Education Modernization in MENA*.
- 56 Le conseil supérieur de l'éducation, de la formation et de la recherche scientifique. (2018). *L'enseignement Supérieur au Maroc: Efficacité, efficacité et défis du système universitaire à accès ouvert*.
- 57 Kleiche-Dray, M., & Belcadi, S. (2008). *L'université marocaine en processus d'autonomisation*.
- 58 Mansouri & Moumine, 2017,
- 59 Schomburg, H. (2016). Carrying Out tracer studies: Guide to anticipating and matching skills and job. In *EU Law and Publication* (Vol. 6). <https://doi.org/10.2816/753132>
- 60 Le conseil supérieur de l'éducation, 2018
- 61 OECD. "Les voies de développement, Examen multidimensionnel du Maroc (Volume 2) Analyse approfondie et recommandations." Chapitre 4. Comment résoudre l'inadéquation entre la formation et l'emploi au Maroc? <https://www.oecd-ilibrary.org/sites/9789264298699-7-fr/index.html?itemId=/content/component/9789264298699-7-fr>
- 62 Lazrak & Yechouti, 2017
- 63 Llorent-Bedmar, V. (2014). Educational reforms in Morocco: Evolution and current status. *International Education Studies*, 7(12), 95–105. <https://doi.org/10.5539/ies.v7n12p95>
- 64 Interview participant, private university professor
- 65 Amrous and Najmaoui, 2016.
- 66 Kissani, I., and A. Boudihaj. "Emotional Intelligence a Success Indicator for Implementing Liberal Arts Education in Morocco." 2019 IEEE Global Engineering Education Conference (EDUCON), Dubai, United Arab Emirates, 2019. <https://ieeexplore.ieee.org/abstract/document/8725054>
- 67 Mourhir, A., and I. Kissani. "Foundation Courses' Soft Skills Evaluation using Fuzzy Cognitive Maps." 2020 IEEE Global Engineering Education Conference (EDUCON), Porto, Portugal. 2020. <https://ieeexplore.ieee.org/abstract/document/9125133/authors#authors>
- 68 FHI 360. "USAID Career Center Final Report." USAID, 2020. [https://pdf.usaid.gov/pdf\\_docs/PA00WQ5H.pdf](https://pdf.usaid.gov/pdf_docs/PA00WQ5H.pdf)
- 69 El Ajraoui, T., K. Ben Kaddour, and M. Zeriuoh. "Transversal Skills in Vocational Education and Training: The Case of ENSAM Engineering Students." *European Scientific Journal* Vol.15, No.8. 2019. [https://www.researchgate.net/publication/332224678\\_Transversal\\_Skills\\_in\\_Vocational\\_Education\\_and\\_Training\\_The\\_Case\\_of\\_ENSAM\\_Engineering\\_Students](https://www.researchgate.net/publication/332224678_Transversal_Skills_in_Vocational_Education_and_Training_The_Case_of_ENSAM_Engineering_Students)
- 70 El Haini, J. "Implementing a Flipped Classroom Structure in Engineering Education to Improve the Soft Skills." *Journal of Engineering Education Transformations* Volume 33, Issue 3. 2020. <http://journaleet.org/index.php/jeet/article/view/147042>
- 71 Koumachi, B. 2020. "Exploring the Dynamic Interplay between Note-taking Strategies and Reading Comprehension Performance of Moroccan EFL Students: A Quasi-Experimental Study." *Randwick International of Education and Linguistics Science Journal* Vol 1, No. 2. 2020. <https://doi.org/10.47175/rielsj.v1i2.83>
- 72 Laaboudi, D., and R. Erguig. "Blending Language Courses: An Added Value." *Languages and Linguistics* 38, 2016. <http://www.lang-ling.com/Langues%20et%20Linguistique%2038.pdf>
- 73 Seilstad, B. "Designing, Implementing, and Evaluating a Department-Wide Service-Learning Program for English Language Learners in Morocco." *Projects with Promise* Vol 18 No 1, 2014. <https://openjournals.libs.uga.edu/jheoe/article/view/1100>
- 74 Three interview participants, two private university professors and one public university professor.
- 75 Dihy, M., and A. Bouamri. "The Effects of a Creativity Training Program on Students' Initial Perceptions of Creativity: The Case Study of Mohamed First University, Morocco." *Arab World English Journal* Vol 9: No 2, 2018. [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3201926](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3201926)
- 76 Interview participant, soft skills program implementer
- 77 Belghiti, K., Y. El Allame, M. Chana. "Critical Thinking Development: The Case of the English Course in the CPGE Classes in Meknes, Fes and Kenitra." *Arab World English Journal*, December 2016 ASELS Annual Conference Proceedings, 2016. [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2895544](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2895544)
- 78 Four interview participants, two private university professors and two public university professors.
- 79 Four interview participants, two private university professors and two public university professors.
- 80 Two interview participants, private university professors
- 81 Two interview participants, public university professors

- 
- <sup>82</sup> Bausch, J., P. Dyer, D. Gardiner, J. Kluge, and E. Mizrokhi. "The Impact of youth skills training on the financial behavior, employability, and educational choice in Morocco." 3ie Impact Evaluation Report 54. 2017. <https://www.3ieimpact.org/evidence-hub/publications/impact-evaluations/impact-youth-skills-training-financial-behaviour>
- <sup>83</sup> Taqem Initiative. "Boosting youth employability in Morocco – I: Qualitative assessment of MEDA Maroc's 100 hours to success programme." International Labour Office, Employment Policy Department – Geneva: ILO. 2015. [https://www.ilo.org/wcmsp5/groups/public/---ed\\_emp/documents/publication/wcms\\_450736.pdf](https://www.ilo.org/wcmsp5/groups/public/---ed_emp/documents/publication/wcms_450736.pdf)
- <sup>84</sup> Interview participant, public university professor
- <sup>85</sup> Zeddari, I. "The End-of-Study Project in English Departments in Morocco: The Supervisor's Perspective." Journal of Applied Languages and Culture Studies. No 1 (2018). 2018. <https://revues.imist.ma/index.php/JALCS/article/view/13168>
- <sup>86</sup> Amrous and Nejmaoui, 2016.
- <sup>87</sup> Chouari and Nachit, 2016.
- <sup>88</sup> Belghiti et al. 2016.
- <sup>89</sup> Chouari and Nachit, 2016.
- <sup>90</sup> Erguig, R. "Study Skills": An Investigation of Teachers' and Students' Attitudes." Journal of Applied Languages and Culture Studies. No 1 (2018). 2018. <https://revues.imist.ma/index.php/JALCS/article/view/13162>
- <sup>91</sup> Laaboudi and Erguig. 2016.
- <sup>92</sup> All participants in consultations
- <sup>93</sup> Zeddari, I. "The End-of-Study Project in English Departments in Morocco: The Supervisor's Perspective." Journal of Applied Languages and Culture Studies. No 1 (2018). 2018. <https://revues.imist.ma/index.php/JALCS/article/view/13168>
- <sup>94</sup> Erguig, 2018.
- <sup>95</sup> Interview respondent, public university professor
- <sup>96</sup> Conseil Supérieur de l'Éducation, de la Formation et de la Recherche Scientifique. 2018. "L'enseignement supérieur au Maroc: Efficacité, efficacité et défis du système universitaire à accès ouvert."
- <sup>97</sup> Three interview participants, two private university professors and a representative of an education organization
- <sup>98</sup> El Mouhtarim, S. "Integrating Critical Thinking Skills in Reading Courses at the University Level: The Case of Faculty of Letters and Humanities, Beni-Mellal, Morocco." Arab World English Journal Volume 9: Number 3, 2018. [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3258834](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3258834)
- <sup>99</sup> Amrous, N., & N. Nejmaoui. "A developmental approach to the use of critical thinking skills in writing: The case of Moroccan EFL university students." In ASELS Annual Conference Proceedings, Mohammed V University of Rabat, Morocco (pp. 142-156). Kuala Lumpur: Arab World English Journal, 2016. <https://awej.org/index.php/2013-04-17-12-20-35/71-annual-conference-of-aseles-morocco-2016/1078-nourddine-amrous-nabila-nejmaoui>
- <sup>100</sup> Large Anonymous Donor. Internal Report. 2020.
- <sup>101</sup> Interview participant, private university professor
- <sup>102</sup> Two interview participants, public university professors
- <sup>103</sup> Zeddari, 2018.
- <sup>104</sup> Llorent-Bedmar, 2014. Page 100
- <sup>105</sup> Llorent-Bedmar, 2014. Page 100
- <sup>106</sup> Al Akhawayn University page 116
- <sup>107</sup> Al Akhawayn University page 84
- <sup>108</sup> Al Akhawayn University pages 115-116
- <sup>109</sup> Al-Hendawi, et al. 2019.
- <sup>110</sup> Al-Hendawi, 2015.
- <sup>111</sup> Al-Hendawi, 2021
- <sup>112</sup> Clark et al., 2019.
- <sup>113</sup> Elgeddawy, 2019.
- <sup>114</sup> Al-Hendawi, Maha and Susan Albertine, "General Education in the Middle East and North Africa: Deep Roots, Contemporary Context," in *Tradition Shaping Change: General Education in the Middle East and North Africa*, eds. Maha Al-Hendawi, Abdelhamid Ahmed, and Susan Albertine, 1-11. Washington, D.C.: Association of American Colleges and Universities, 2019.
- <sup>115</sup> Ministry of Education (Ministère de l'Éducation Nationale, de la Formation Professionnelle, de l'Enseignement Supérieur et de la Recherche Scientifique). (2010). *Textes Législatifs et Réglementaires Relatifs à l'Enseignement Supérieur*.
- <sup>116</sup> Hidri, S. & Coombe, C. (2017). *Evaluation in Foreign Language Education in the Middle East and North Africa*. Second Language Learning and Teaching. Springer International Publishing AG Switzerland.



- <sup>117</sup> Brown, S. (2005). *Assessment for Learning. Learning and Teaching in Higher Education* (1). pp. 81-89. ISSN 1742-240X. <http://eprints.glos.ac.uk/3607/1/LATHE%20.%20Assessment%20for%20Learning%20Brown.pdf>
- <sup>118</sup> Abid, F. 2016. E-Learning and ICT: Seeking Novelty in ELT Teacher's Professional Development. In Proceedings of the 36<sup>th</sup> MATE Annual Conference. [https://issuu.com/mohammedhassim/docs/proceedings\\_of\\_mate\\_36th\\_conf\\_2016](https://issuu.com/mohammedhassim/docs/proceedings_of_mate_36th_conf_2016)
- <sup>119</sup> Mousavi, S.A. (2009) *An encyclopedic dictionary of language testing*. (4<sup>th</sup> edition). Tehran: Rahnama Publications
- <sup>120</sup> Stiggins, R. (2017). *The Perfect Assessment System* (1st ed.). ASCD.
- <sup>121</sup> European Commission. (2017). *Overview of the Higher Education System Morocco*. [https://eacea.ec.europa.eu/sites/eacea-site/files/countryfiches\\_morocco\\_2017.pdf](https://eacea.ec.europa.eu/sites/eacea-site/files/countryfiches_morocco_2017.pdf)
- <sup>122</sup> Kaaouachi, Abdelali.. (2009). *L'évaluation dans le système d'enseignement supérieur au Maroc : bilan des réalisations, limites et principaux défis*. In *Towards an Arab Higher Education space : International challenges and social responsibilities : proceedings of the Arab regional conference on Higher Education, Cairo, 31 May, 1-2 June 2009*. (pp. 409-422 ).
- <sup>123</sup> H. Belhiah et al. (eds.). (2020). *English Language Teaching in Moroccan Higher Education*
- <sup>124</sup> Boustane, H. (2020). *Assessment Literacy in Moroccan Higher Education: Undergraduate Students' Perspectives*. Thesis for: Bachelor of Arts, Hassan II University, Casablanca
- <sup>125</sup> UNESCO. (2012). *Rapport de recherche sur Les réformes des systèmes de gouvernance dans l'enseignement supérieur au Maroc*. <http://www.unesco.org/new/fileadmin/MULTIMEDIA/FIELD/Dakar/pdf/REFORMEGOUVERNANCEMAROCnov2012.pdf>
- <sup>126</sup> Bouziane, A. (2018). *L'enseignement des langues au Maroc : état des lieux et perspectives*.
- <sup>127</sup> Mellouk, M. (2011). *La question des langues à l'école marocaine revisitée*. [http://search.shamaa.org/PDF/Articles/MOAmM/AmmNo3Y2011/amm\\_2011-n3\\_105-132\\_fre.pdf](http://search.shamaa.org/PDF/Articles/MOAmM/AmmNo3Y2011/amm_2011-n3_105-132_fre.pdf)
- <sup>128</sup> Coombe, C., Vafadar, H. & Mohebbi, H. (2020). *Language assessment literacy: what do we need to learn, unlearn, and relearn?*. *Language Testing in Asia* 10, Article number 3. <https://languagetestingasia.springeropen.com/articles/10.1186/s40468-020-00101-6#citeas>
- <sup>129</sup> Malone, M.E. (2013). *The essential of assessment literacy: Contrasts between testers and users*. *Language Testing*. 30(3). 329-344.
- <sup>130</sup> Deygers, B. & Malone, M.E. (2019) *Language assessment literacy in university admissions policies or the dialogue that isn't*. *Language Testing*. 36(3), 347-368.
- <sup>131</sup> Ouakrime, M. 1993. *Evaluating Classroom teaching: focus on communication*. In proceedings of the 13<sup>th</sup> MATE annual conference.
- <sup>132</sup> Benzeha, B. (2017). *Exploring Teachers' Assessment Practices and Skills*. *International Journal of Assessment Tools in Education: Vol. 4, Issue 1, (2017) pp. 1-18*.
- <sup>133</sup> Etzkowitz, H. (2004). *The evolution of the entrepreneurial university*. *International Journal of Technology and Globalisation*, 1(1), 64-77.
- <sup>134</sup> EL-Tohmay, 2020.
- <sup>135</sup> EL-Tohmay, 2020
- <sup>136</sup> EL-Tohmay, 2020.
- <sup>137</sup> World Bank Group, "Individuals using the Internet (% of population) – Morocco," The World Bank Group, 2020. <https://data.worldbank.org/indicator/IT.NET.USER.ZS?locations=MA>
- <sup>138</sup> World Bank Group, "Individuals using the Internet (% of population) – Morocco," The World Bank Group, 2020. <https://data.worldbank.org/indicator/IT.NET.USER.ZS?locations=MA>
- <sup>139</sup> Arthur Foch and Carlo Maria Rossotto, "Broadband: the platform of the digital economy and a critical development challenge for Morocco," The World Bank Group, 2016, <http://documents1.worldbank.org/curated/ar/547301493384118940/pdf/114660WP-v2-P151545-PUBLIC.pdf>
- <sup>140</sup> Ali Bekou, "E-learning in Morocco: Now and beyond,"
- <sup>141</sup> Arthur Foch and Carlo Maria Rossotto, "Broadband: the platform of the digital economy and a critical development challenge for Morocco"
- <sup>142</sup> Faculty focus group. 2021.
- <sup>143</sup> Ali Bekou, "E-learning in Morocco: Now and beyond"
- <sup>144</sup> Personal communication with Dr. Mhammed Abderebbi, Professor of Sociology and Hassan II University
- <sup>145</sup> Wagdy Sawahel, "Ministry floats hybrid model for upcoming academic year"
- <sup>146</sup> Ministère de l'Éducation Nationale, de la Formation Professionnelle, de l'Enseignement Supérieur et de la Recherche Scientifique Département de l'Enseignement Supérieur et de la Recherche Scientifique. *Evaluation du Dispositif D'enseignement a Distance aux Universités Publiques Marocaines*.
- <sup>147</sup> Abdennasser Naji, "The repercussions of Covid-19 on the field of education," [preprint] Cambridge Open Engage, 2020, <https://www.cambridge.org/engage/coe/article-details/5eff40cc0d86550019b63312>
- <sup>148</sup> Ministère de l'Éducation Nationale, de la Formation Professionnelle, de l'Enseignement Supérieur et de la Recherche Scientifique Département de l'Enseignement Supérieur et de la Recherche Scientifique. *Evaluation du Dispositif D'enseignement a Distance aux Universités Publiques Marocaines*.

- 
- <sup>149</sup> USAID, “USAID Distance Education Activity Prepare Morocco’s Ministry of Education for Virtual Learning during Coronavirus Disruptions,” USAID, April 3, 2020, <https://www.usaid.gov/morocco/program-updates/apr-2020-usaid-distance-education-activities-ministry-education-coronavirus-disruptions>
- <sup>150</sup> Conseil Supérieur de l’Education, de la Formation et de la Recherche Scientifique, “Réforme de l’enseignement supérieur: Perspectives stratégiques,” *Conseil Supérieur de l’Education, de la Formation et de la Recherche Scientifique*, 2019, <https://www.csefrs.ma/publications/rapport-sur-le-theme-reforme-de-lenseignement-superieur-perspectives-strategiques/?lang=fr>
- <sup>151</sup> Student focus group. 2021.
- <sup>152</sup> Student focus group. 2021.
- <sup>153</sup> Amy Porter, Kouider Mokhtari, and Khadija Saoudi. “Morocco Higher Education Situational Analysis Report.” USAID, 2019
- <sup>154</sup> Bouchaib Riyami, Khalifa Monsouri, and Frank Poirier, “Integration of MOOC in the Initial Training Courses at University in Morocco, Experiment Conducted in the Sectors of Public and Private Education,” World Congress Report on Education, 2018.
- <sup>155</sup> Zineb Draïssi and Qi ZhanYong, “COVID-19 Outbreak Response Plan: Implementing Distance Education in Moroccan Universities,” [preprint], Shaanxi Normal University, 2020.
- <sup>156</sup> USAID, “USAID Distance Education Activity Prepare Morocco’s Ministry of Education for Virtual Learning during Coronavirus Disruptions,” USAID, April 3, 2020, <https://www.usaid.gov/morocco/program-updates/apr-2020-usaid-distance-education-activities-ministry-education-coronavirus-disruptions>
- <sup>157</sup> Three interview participants, one private university professor, one public university professor, and one representative of an education organization.
- <sup>158</sup> Two interview participants, one private university professor and one public university professor.
- <sup>159</sup> Five interview participants, three private university professors and two public university professors.
- <sup>160</sup> Conseil supérieur de l’éducation, de la formation et de la recherche scientifique (CSEFRS). (2015). *Vision stratégique de la réforme 2015-2030: pour une école de l’équité, de la qualité et de la promotion*. Rabat, Morocco
- <sup>161</sup> Conseil supérieur de l’éducation, de la formation et de la recherche scientifique (CSEFRS). (2015). *Vision stratégique de la réforme 2015-2030: pour une école de l’équité, de la qualité et de la promotion*. Rabat, Morocco
- <sup>162</sup> Haouassia, S. (2016). *Réflexions sur l’évaluation des acquis cognitifs des étudiants au cycle supérieur au Maroc*. The Journal of Quality in Education, 6(8), 7.
- <sup>163</sup> Adapted from Ohio Department of Higher Education. *Prior Learning Assessment Framework*. <https://www.ohiohighered.org/PLA/framework#e3>. Retrieved on 03/24/2021.
- <sup>164</sup> MERIC-NET : Système éducatif Marocain. Rapport national, septembre 2019. P4.
- <sup>165</sup> Ministère de l’Education Nationale, de la Formation Professionnelle, de l’Enseignement Supérieur et de la Recherche Scientifique. *L’Enseignement Supérieur en Chiffres 2019-2020*. Direction des Stratégies et des Systèmes d’Information
- <sup>166</sup> Conseil Supérieur de l’Education, de la Formation et de la Recherche Scientifique. 2018. “L’enseignement supérieur au Maroc: Efficacité, efficacité et défis du système universitaire à accès ouvert.”
- <sup>167</sup> Ministère de l’Education Nationale, de la Formation Professionnelle, de l’Enseignement Supérieur et de la Recherche Scientifique. *L’Enseignement Supérieur en Chiffres 2019-2020*. Direction des Stratégies et des Systèmes d’Information. P6
- <sup>168</sup> Hssein Khtou, “Challenges to the Mission of English Department in Morocco.”
- <sup>169</sup> Khouloud El Masrar, “The Current University Reforms in Morocco”
- <sup>170</sup> Mohammed Lazrak and Yahya Yechouti, “Issues in Moroccan Higher Education,”
- <sup>171</sup> Kathleen Trayte Freeman, “Morocco: A Guide to Its Educational System and Advice for the Admission and Placement of Students Educated in Morocco,” 2010. <https://theconnection.ece.org/public/resources/Morocco-final-3-2-10.pdf>
- <sup>172</sup> Mediterranean Network of National Information Centres on the Recognition of Qualifications. “Moroccan Educational System: National Report.” *The European Commission*, 2019. [http://www.meric-net.eu/files/fileusers/National\\_Report\\_MERIC-Net\\_Morocco\\_EN.pdf](http://www.meric-net.eu/files/fileusers/National_Report_MERIC-Net_Morocco_EN.pdf)
- <sup>173</sup> Ettoualy, 2013.
- <sup>174</sup> Mediterranean Network of National Information Centres on the Recognition of Qualifications. “Moroccan Educational System: National Report.” *The European Commission*, 2019. [http://www.meric-net.eu/files/fileusers/National\\_Report\\_MERIC-Net\\_Morocco\\_EN.pdf](http://www.meric-net.eu/files/fileusers/National_Report_MERIC-Net_Morocco_EN.pdf)
- <sup>175</sup> Mediterranean Network of National Information Centres on the Recognition of Qualifications. “Moroccan Educational System: National Report.” *The European Commission*, 2019. [http://www.meric-net.eu/files/fileusers/National\\_Report\\_MERIC-Net\\_Morocco\\_EN.pdf](http://www.meric-net.eu/files/fileusers/National_Report_MERIC-Net_Morocco_EN.pdf)
- <sup>176</sup> Mediterranean Network of National Information Centres on the Recognition of Qualifications. “Moroccan Educational System: National Report.” *The European Commission*, 2019. [http://www.meric-net.eu/files/fileusers/National\\_Report\\_MERIC-Net\\_Morocco\\_EN.pdf](http://www.meric-net.eu/files/fileusers/National_Report_MERIC-Net_Morocco_EN.pdf)



- 
- 177 Youssef El Kaidi. "Educational Reforms in Morocco"
- 178 Vicente Llorent-Bedmar, "Educational Reforms in Morocco: Evolution and Current Status,"
- 179 Hssein Khtou, "Challenges to the Mission of English Department in Morocco," In *English Language Teaching in Moroccan Higher Education*, edited by H. Belhiah, I. Zeddari, N. Amrous, Jamal Bahmad, and N. Bejjit, 247-257. Springer, Singapore, 2020.
- 180 Youssef El Kaidi. "Educational Reforms in Morocco"
- 181 Khoulood El Masrar, "The Current University Reforms in Morocco: The Present Situation of Labor Market and Culture," *International Journal of Humanities and Social Science* 5, no. 9 (2015): 182-188.
- 182 Mouna Cherkaoui and Mohamed Berdouzi, "Higher Education Reform in Morocco," *Mohamed V University, Rabat, Morocco* (n.d.).
- 183 Khoulood El Masrar, "The Current University Reforms in Morocco"
- 184 Mohammed Lazrak and Yahya Yechouti, "Issues in Moroccan Higher Education,"
- 185 Vicente Llorent-Bedmar, "Educational Reforms in Morocco: Evolution and Current Status,"
- 186 Youssef El Kaidi. "Educational Reforms in Morocco"
- 187 Khoulood El Masrar, "The Current University Reforms in Morocco"
- 188 Youssef El Kaidi. "Educational Reforms in Morocco"
- 189 Khoulood El Masrar, "The Current University Reforms in Morocco"
- 190 Mohammed Lazrak and Yahya Yechouti, "Issues in Moroccan Higher Education,"
- 191 Abdallah Ghaicha, "Moroccan Higher Education System: Reality and Prospects," *Higher Education of Social Science* 14, no. 1 (2018): 10-17.
- 192 Mohammed Lazrak and Yahya Yechouti, "Issues in Moroccan Higher Education,"
- 193 Khoulood El Masrar, "The Current University Reforms in Morocco"
- 194 Khoulood El Masrar, "The Current University Reforms in Morocco"
- 195 Abdallah Ghaicha, "Moroccan Higher Education System"
- 196 Nabil Morchid, "Investigating Quality Education in Moroccan Educational Reforms from 1999 to 2019," *IOSR Journal of Research & Method in Evaluation* 10, no. 1 (2020): 54-61.
- 197 Hssein Khtou, "Challenges to the Mission of English Department in Morocco."
- 198 Nabil Morchid, "Investigating Quality Education in Moroccan Educational Reforms from 1999 to 2019," *IOSR Journal of Research & Method in Evaluation* 10, no. 1 (2020): 54-61.
- 199 Hssein Khtou, "Challenges to the Mission of English Department in Morocco."
- 200 Zoulal Mansouri and Mohamed El Amine Moumine, "Outlook on Student Retention in Higher Education University Reforms in Morocco," *International Journal of Education and Literacy Studies* 5, no. 2 (2017): 53-60.
- 201 ICEF Monitor, "Morocco still aiming to boost education quality and access," *ICEF Monitor*, 2015. <https://monitor.icef.com/2015/02/morocco-still-aiming-boost-education-quality-access/>
- 202 Youssef El Kaidi. "Educational Reforms in Morocco"
- 203 Abdallah Ghaicha, "Moroccan Higher Education System"
- 204 Hssein Khtou, "Challenges to the Mission of English Department in Morocco."
- 205 Youssef El Kaidi. "Educational Reforms in Morocco"
- 206 Nabil Morchid, "Investigating Quality Education in Moroccan Educational Reforms from 1999 to 2019,"
- 207 Nabil Morchid, "Investigating Quality Education in Moroccan Educational Reforms from 1999 to 2019,"
- 208 Conseil Supérieur de l'Éducation, de la Formation et de la Recherche Scientifique. "For a School of Equity, Quality and Promotion: A Strategic Vision of Reform 2015-2013. Abstract." *Conseil Supérieur de l'Éducation, de la Formation et de la Recherche Scientifique*. <https://www.csefrs.ma/wp-content/uploads/2015/05/Re%CC%81sume%CC%81-vision-Anglais.pdf>
- 209 Zoulal Mansouri and Mohamed El Amine Moumine, "Outlook on Student Retention in Higher Education University Reforms in Morocco,"
- 210 Bouchaib Riyami, Khalifa Monsouri, and Frank Poirier, "Integration of MOOC in the Initial Training Courses at University in Morocco, Experiment Conducted in the Sectors of Public and Private Education," World Congress Report on Education, 2018.
- 211 Zineb Draissi and Qi ZhanYong, "COVID-19 Outbreak Response Plan: Implementing Distance Education in Moroccan Universities," [preprint], Shaanxi Normal University, 2020.
- 212 Personal communication with Dr. Mhammed Abderebbi, Professor of Sociology and Hassan II University
- 213 Rim Keli. "COVID-19 and distance learning in Morocco"

- 
- 214 Arab States Research and Education Network and MARWAN, “Boosting online learning in Morocco during the coronavirus lockdown,” In the Field, August 2020, <https://www.inthefieldstories.net/boosting-online-learning-in-morocco-during-the-coronavirus-lockdown/>
- 215 Zineb Draissi and Qi ZhanYong, “COVID-19 Outbreak Response Plan”
- 216 Ali Bekou, “E-learning in Morocco: Now and beyond,” [preprint] Université Ibn Tofail, 2020, [https://www.researchgate.net/publication/341754730\\_E-learning\\_in\\_Morocco\\_Now\\_and\\_beyond\\_E-learning\\_in\\_Morocco\\_Now\\_and\\_beyond](https://www.researchgate.net/publication/341754730_E-learning_in_Morocco_Now_and_beyond_E-learning_in_Morocco_Now_and_beyond)
- 217 Zineb Draissi and Qi ZhanYong, “COVID-19 Outbreak Response Plan”
- 218 North Africa Post, “Covid-19: Over 2,260 schools in Morocco opt for remote learning,” Headlines, North Africa Post, September 26, 2020, <https://northafricapost.com/44109-covid-19-over-2260-schools-in-morocco-opt-for-remote-learning.html>
- 219 Yahia Hatim, “Remote Classes Resume on Morocco’s National Television,” Morocco World News, May 26, 2020, <https://www.morocroworldnews.com/2020/05/303832/remote-classes-resume-on-moroccos-national-television/>
- 220 Arab States Research and Education Network and MARWAN, “Boosting online learning in Morocco during the coronavirus lockdown”
- 221 Ali Bekou, “E-learning in Morocco: Now and beyond”
- 222 Zineb Draissi and Qi ZhanYong, “COVID-19 Outbreak Response Plan”
- 223 Ali Bekou, “E-learning in Morocco: Now and beyond”
- 224 Personal communication with Dr. Mhammed Abderebbi, Professor of Sociology and Hassan II University
- 225 Personal communication with Dr. Mhammed Abderebbi, Professor of Sociology and Hassan II University
- 226 Wagdy Sawahel, “Ministry floats hybrid model for upcoming academic year”
- 227 Abdennasser Naji, “The repercussions of Covid-19 on the field of education,” [preprint] Cambridge Open Engage, 2020, <https://www.cambridge.org/engage/coe/article-details/5eff40cc0d86550019b63312>
- 228 Wagdy Sawahel, “Ministry floats hybrid model for upcoming academic year,” University World News Africa Edition, September 7, 2020, <https://www.universityworldnews.com/post.php?story=2020090714441712>
- 229 World Bank Group, “Individuals using the Internet (% of population) – Morocco,” The World Bank Group, 2020. <https://data.worldbank.org/indicator/IT.NET.USER.ZS?locations=MA>
- 230 Arthur Foch and Carlo Maria Rossotto, “Broadband: the platform of the digital economy and a critical development challenge for Morocco,” The World Bank Group, 2016, <http://documents1.worldbank.org/curated/ar/547301493384118940/pdf/114660WP-v2-P151545-PUBLIC.pdf>
- 231 Ali Bekou, “E-learning in Morocco: Now and beyond,”
- 232 Arthur Foch and Carlo Maria Rossotto, “Broadband: the platform of the digital economy and a critical development challenge for Morocco”
- 233 Arthur Foch and Carlo Maria Rossotto, “Broadband: the platform of the digital economy and a critical development challenge for Morocco”
- 234 Arthur Foch and Carlo Maria Rossotto, “Broadband: the platform of the digital economy and a critical development challenge for Morocco”
- 235 World Bank Group, “Individuals using the Internet (% of population) – Morocco”
- 236 Arthur Foch and Carlo Maria Rossotto, “Broadband: the platform of the digital economy and a critical development challenge for Morocco”
- 237 Rim Keli. “COVID-19 and distance learning in Morocco”
- 238 USAID, “USAID Distance Education Activity Prepare Morocco’s Ministry of Education for Virtual Learning during Coronavirus Disruptions,” USAID, April 3, 2020, <https://www.usaid.gov/morocco/program-updates/apr-2020-usaid-distance-education-activities-ministry-education-coronavirus-disruptions>
- 239 Conseil Supérieur de l’Education, de la Formation et de la Recherche Scientifique, “Réforme de l’enseignement supérieur: Perspectives stratégiques,” *Conseil Supérieur de l’Education, de la Formation et de la Recherche Scientifique*, 2019, <https://www.csefrs.ma/publications/rapport-sur-le-theme-reforme-de-lenseignement-superieur-perspectives-strategiques/?lang=fr>
- 240 Bouchaïb Riyami, Khalifa Mansouri, and Frank Poirier, “Integration of MOOC in the Initial Training Courses at University in Morocco, Experiment Conducted in the Sectors of Public and Private Education.”
- 241 Bouchaïb Riyami, Khalifa Mansouri, and Franck Poirier. “Towards a Hybrid University Education, Integration of MOOCs in Initial Training Programs: A Case of a Big Private Education Structure in Morocco.” *INTED 2016, IATED (2016)*, 6132-6141.