

THE PUBLIC POLICY HUB

A Policy Paper

# Bridging the Employability Skills Gap in Higher Education

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# **Bridging the Employability Skills Gap in Higher Education**

## Policy Paper

Prepared by:\*

**Laila El Baradei <sup>1</sup>**

**Mohamed Kadry <sup>2</sup>**

Assistant Professor  
Department of Public Policy and Administration  
**School of Global Affairs and Public Policy**  
**The American University in Cairo**

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<sup>1</sup> Laila El Baradei, PhD, is a Professor of Public Administration at the School of Global Affairs and Public Policy (GAPP), the American University in Cairo, Egypt. She is the director of the MPA program and the Director of the Public Policy HUB project.

<sup>2</sup> Mohamed Kadry, is an alum of the Public Policy Master's program at the American University in Cairo, a current Ph.D. candidate at Dalhousie University, Canada and the program manager of the Public Policy HUB project.

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# Table of Content

<b>1. Executive Summary</b>	<b>1</b>
<b>2. Problem</b>	<b>2</b>
<b>2.1. Problem background</b>	<b>2</b>
<b>2.2. Defining employability and employability skills gap</b>	<b>3</b>
<b>2.3. Problem Statement</b>	<b>3</b>
<b>2.4. Employability Skills Gap in Higher Education in Egypt</b>	<b>4</b>
<b>2.4.1. Challenges facing employers with the higher education fresh graduates</b>	<b>5</b>
2.4.1.1. Misconceptions and lack of knowledge about the labour market	5
2.4.1.2. Lack of core and language skills	5
2.4.1.3. Lack of digital skills	6
2.4.1.4. High labour turnover among fresh graduates	6
<b>2.5. Employability Skills Gap root causes</b>	<b>6</b>
<b>2.5.1. Lack of coordination among key stakeholders</b>	<b>6</b>
<b>2.5.2. Curriculum mismatch with labour market needs</b>	<b>7</b>
<b>2.5.3. Outdate teaching methodology and lack of practical training</b>	<b>8</b>
<b>3. Previous governmental policies and interventions</b>	<b>9</b>
<b>3.1. The National Authority for Quality Assurance and Accreditation of Education (NAQAAE)</b>	<b>9</b>
<b>3.2. Higher Education Observatory</b>	<b>10</b>
<b>3.3. Egyptian Observatory for Education, Training and Employment (EOETE)</b>	<b>11</b>
<b>4. International experiences</b>	<b>12</b>
<b>4.1. The Network of Schools of Public Policy, Affairs, and Administration (NASPAA)</b>	<b>12</b>
<b>4.2. The Development of an Employability Skills Index in Malta</b>	<b>13</b>
<b>4.3. “Graduate Apprenticeship” Program – Bridging digital skills gap in Scotland</b>	<b>13</b>

# Table of Content

<b>5. Anticipated Policy Results and Proposed Policy Alternatives</b>	<b>14</b>
<b>5.1. Anticipated Policy results</b>	<b>14</b>
<b>5.1.1. Graduating students with the required labor market skills and competencies</b>	<b>14</b>
<b>5.1.2. Aligning University Curricula with Labour Market needs</b>	<b>14</b>
<b>5.1.3. Updating teaching tools and methods to link theory to practice and emphasize practical training of students</b>	<b>15</b>
<b>5.2. Proposed Policy Alternatives</b>	<b>15</b>
<b>Alternative One: Maintain and support a mechanism for active collection, analysis, reporting and dissemination of comprehensive data on labour market needs possibly housed and managed by CAPMAS (Employability Skills Index)</b>	<b>16</b>
<b>Alternative Two: Incorporating a new standard for linking theory to practice within NAQAEE's assessment of quality of H.E. programs with clear KPIs.</b>	<b>17</b>
<b>Alternative Three: Performance Based Budgeting for universities linked to their ability to bridge the employability gap</b>	<b>18</b>
<b>Alternative Four: Revamping University Centers for Career Development within universities and widening their scope of work</b>	<b>18</b>
<b>Alternative Five: Revising the faculty promotion and appraisal system to include measures for linking theory to practice</b>	<b>19</b>
<b>6. Recommendations</b>	<b>20</b>
<b>6.1. Alternatives' assessment criteria</b>	<b>20</b>
<b>6.2. Recommended alternatives</b>	<b>22</b>
<b>7. References</b>	<b>23</b>

## Executive Summary

The employability skills gap has been significantly affecting the labour market in Egypt. There is a mismatch between the outputs of higher education (HE) institutions and the labour market needs. Employers reported several challenges faced when hiring higher education graduates such as: graduates having misconceptions about the labour market, their lack of core, language, digital, and professional skills, their low ethical standards, and their high turnover rates.

Over the years there were several efforts and interventions implemented by the Egyptian government to try to bridge the employability skills gap and get the HE institutions to foster a better link between theory and practice. This policy paper examined the GOE efforts, reviewed international experiences, and capitalized on the wealth of information derived from field interviews and surveys, implemented by the University Centers for Career Development project (UCCD), before coming up with five proposed alternative solutions for the problem that focus mostly on the supply side of the equation. The five alternative solutions are as follows: first, maintain and support a mechanism for active collection, analysis, reporting and dissemination of comprehensive data on labour market needs; second, incorporate a new standard for linking theory to practice within NAQAEE's assessment of the quality of HE programs, with clear KPIs; third, establish a performance-based budgeting system for universities linked to the universities' ability to bridge the employability gap; fourth, revamp the University Centers for Career Development within universities and expand their scope of work; and finally, revise the faculty promotion and appraisal system to include measures for linking theory to practice.

After analyzing the five different alternatives and assessing them for political acceptance, economic viability and administrative/institutional feasibility, the policy paper recommended starting with the establishment of an integrated mechanism for active data collection, analysis, reporting and dissemination on labour market needs. Having the employability data available to all stakeholders would represent the foundation for evidence-based policies. Next, an incentive system can be created that guarantees the sustainable link between theory and practice in all HE programs. The reviewed global literature on employability gaps showed that there was agreement on the need to link theory to practice and an awareness of the methods. What was lacking was the motivation and the incentive system, and hence the proposed three-pronged incentive system to cover accreditation, budgeting, and faculty promotion. Simultaneously, it is recommended to revamp the University Centers for Career Development within universities and expand their scope of work.

## 2. Problem

### 2.1. Problem Background

Egypt suffers from high unemployment rates for university graduates. The problem is that large numbers of university graduates are not qualified for the labour market, as they do not have the needed competencies, skills, behaviors, or knowledge. A significant mismatch is reported between the outputs of the Higher Education Institutions and the demands of the labour market (Asaad et al., 2018). In addition to that, according to the focus group discussions, employers stated that there is a lack of compatibility between the graduates' desires and aspirations, and the needs of the potential employers and business owners. For example, young people want to work as accountants, or in public relations, while companies mostly demand sales personnel, and many young people do not favor working in sales (UCCD, 2022). According to CAPMAS, the total number of university graduates in 2019/2020 in Egypt totaled 481 thousand; 451 thousand from public universities, and nearly 30 thousand from private universities (CAPMASa, 2022). The latest total unemployment rate reported for 2022 in Egypt reached 7.4% (CAPMASb, 2022). Unemployment among university graduates reached 15.7% in 2020 (CAPMASb, 2022). Meanwhile, unemployment for illiterates and holders of intermediate educational degrees was much lower during the same year; 2.8% unemployment for illiterates, 4.4% for those who can read and write, 6.0% for those lower than intermediate, and 7% for those with intermediate educational levels (CAPMASb, 2022)<sup>3</sup>.

The employability skills gap is not unique to Egypt but is a problem that has been repeatedly identified over time, globally and across various disciplines (Tan et al., 2022; Bhatnagar, 2021; Jones, 2014; Bremer & El Baradei, 2008; Hills et al., 2003).

The current policy paper aims at figuring out how best to bridge the employability skills gap for university graduates in Egypt.

The research started with a desk review of the secondary resources (such as reports from the International Labour Organization (ILO), World Bank, etc.), literature, and international practices discussing the topic of the employability skills gap in higher education. Next, the research adopted a qualitative research methodology capitalizing on the wealth of primary data collected by the University Centers for Career Development (UCCD) project through 47 roundtable discussions organized with the relevant stakeholders, in 9 Universities, in 8 Governorates and the results of 41 surveys directed to enterprises and implemented as well by the UCCD project (UCCD, 2022).

<sup>3</sup> It should be noted that CAPMAS's calculation of unemployment rates covers only those who are looking for jobs

## 2.2. Defining employability and employability skills gap

Employability has been defined differently by different scholars. It mostly covers the ability of a person to obtain and maintain work he/she attained due to his/her capabilities and competencies (Römgens, et al., 2020; Bano and Shanmugam, 2019; Forrier and Sels, 2003). In more simple terms, it is the ability to get initial employment, maintain employment, move between jobs and roles, and have the skills, abilities and attributes that will enable this to happen (Sharon et Beaumont, 2018).

Meanwhile, the 'Employability Skills Gap' is defined as the gap between an employee's ability (high education graduates) and employer's expectations. The competency gap is the big issue that is faced by both employees and employers in today's environment of accelerated innovations (Bano and Shanmugam, 2019; Asonitou, 2015).

## 2.3. Problem statement

**This policy paper focuses on how to bridge the employability skills gap in higher education in Egypt.**

The focus is mostly on the supply side, from the perspective of the HE institutions. However, it is worth mentioning, that for a comprehensive bridging of the employability skills gap, there should also be a consideration of the demand side, meaning the availability and quality of decent jobs in the labour

market suitable for university graduates. The assumption is that the more an economy thrives, the more jobs will be available; and the more the quality of education improves in HE institutions, the more graduates, not only fit for the available jobs, but also able to create jobs themselves.

## 2.4. Employability skills gap in higher education in Egypt

Higher education is a very important component within the Egyptian education system. It includes 24 public universities with 450 faculties, 26 private universities, 162 colleges, 158 higher institutes, and more than 2.7 million students. Egypt suffers from high unemployment rates for university graduates. The demand for technical labour exceeds the demand for university students. The unemployment rate in Egypt reached 7.4% in the fourth quarter of 2021, with females being the most affected with a percentage of 16.8% unemployment rate, versus 5.1% for males (CAPMAS, 2021; Assaad & Krafft, 2016; Helmy, 2018). The unemployment rate among university graduates and above is the greatest with a percentage of 15.7%; 27.6% among females and 10.3% among males (CAPMAS, 2021; Barsoum et al., 2014; Helmy, 2018).

A great contributor to youth unemployment is the employability skills gap that resulted from the mismatch between knowledge and skills offered by education, and those that are demanded by employers, in addition to the outdated curriculum, low quality of education methodologies, and lack of qualified teachers (Helmy, 2018). According to the 2012 School-to-work Transition Survey in Egypt implemented by the Central Agency for Public Mobilization and Statistics (CAPMAS) and supported by the ILO, around 47.7% of Egyptian youth are working in jobs that do not match their education, additionally, 30% of the youth refused a job offer as it does not match their qualifications (Barsoum et al., 2014; Helmy, 2018).

The employability skills gap is partially due to the lack of mismatched values and the ineffective communication between employers and higher education institutions (Bano and Shanmugam, 2019). This gap widens with the initiation of new technologies and with more digitalization (ibid). The employability skills gap in Egypt occurs as well as a result of the mismatch between what is taught in the various HE curricula and the expectations of future employers. Oftentimes, studies have identified the existence of a major gap whether in business studies (Constantine & Sonya, 2018), in the public administration and public policy studies (Bremer & El Baradei, 2008), in engineering (Aliu & Aigbavboa, 2019), or in other disciplines.

According to the School-to-work Transition survey in Egypt that was implemented by the CAPMAS and the ILO, 47.7% of the working youth are in jobs that do not match their education, and out of those working youth 8.8% are overeducated, and 38.9% are undereducated (Barsoum et al., 2014). According to the reports of the focus group discussions organized by the UCCD project, the employability skills gap is due to the lack of compatibility between the desires (on the part of the youth) and the needs (on the part of the business owners). For example, young people want to work as accountants or in public relations, while companies mostly demand sales personnel, and young people mostly do not consider the sales jobs as appropriate.

## 2.4.1. Challenges facing employers with the higher education fresh graduates

According to the roundtable discussions report (UCCD, 2022), the employers stated that the percentage of those who pass the job application tests from the total applicants for work has decreased significantly over time, due to the lack of the required level of competences among the applicants from

recent graduates. As such, employers incur large costs for training new hires to qualify them for work. The focus group discussion identified several challenges facing employers with the higher education graduates. Among these challenges are the following:

### 2.4.1.1. Misconceptions and lack of knowledge about the labour market

Graduates lack knowledge about the general culture of work, in addition to lack of information about needs, responsibilities, and duties related to the professions to which they are applying. They also lack understanding of career progression within the hierarchy at the workplace. They want to work in senior positions from the beginning, and they do not focus on acquiring the needed skills, experience and/or learning. Fresh graduates address the salary before they have the required experience, compare themselves with those who have experience, and show their dissatisfaction with the salary they receive when they begin working. Some

employers highlighted that, interestingly, student activities often had a negative effect on job applicants. As a result of having participated in extracurricular activities while studying, the students start overestimating their knowledge and skills, and thus show arrogance and disregard for the available job opportunities. They become highly ambitious and have unrealistic expectations, and thus get frustrated quickly and quit work.

### 2.4.1.2. Lack of core and language skills

Employers stated that the graduates lack several skills, such as language skills, especially English language, which is highly required in the labour market and is considered one of the most important reasons for success at work. Additionally, applicants sometimes are incapable of properly writing in Arabic language, their mother tongue. Other lacking core skills included the lack of communication skills, and most importantly the concept of self-teaching/learning between students and graduates in order to develop their personal and technical skills.

Additionally, companies face a challenge in finding graduates who possess the required ethics, values and behaviors that are required in the labour market, such as responsibility,

honesty, integrity, discipline, commitment, professional communication, and a positive attitude.

#### Sample of the soft skills required in the labour market

Problem solving, strategic thinking, time management, taking initiative, teamwork, resilience, communication and negotiation, innovation, dedication, integrity, taking responsibility, commitment, passion for learning, observation, etc.

## 2.4.1. Challenges facing employers with the higher education fresh graduates

### 2.4.1.3. Lack of digital skills

There are graduates who have electronic illiteracy, to the extent that some of them do not even use emails. Additionally, they do not keep pace with the developments in modern technology used in the workplace. Youth are addicted to the Internet and social media, but they do not use the internet properly. They waste time that they could have utilized for self-development. This ends up with youth

having a limited vision about the future and the world at large.

#### Sample of the programs and software that graduates are required to master:

Power BI Program, Statistical Package for the Social Sciences (SPSS), SAP Software, Alteryx, Photoshop, etc.

### 2.4.1.4. High labour turnover among fresh graduates

The employers stated that the rate of labour turnover in their workplaces among the fresh graduates has increased during the last two years. One of the reasons for the recent graduates leaving work is their complaints about lack of appreciation, and this is partially due to

their misconception that they should be thanked and appreciated for everything they do at work. This is contrary to what happens in real life where annual performance appraisal is the norm based on clear evaluation criteria.

## 2.5. Employability skills gap's root causes

Traditional education depends on indoctrination, while work depends on interaction, and this is one of the problems

behind employers facing problems when hiring new graduates (Bano and Shanmugam, 2019).

### 2.5.1. Lack of coordination among key stakeholders

Although lots of efforts have been exerted in tackling the problem of the employability skills gap, yet a huge challenge persists related to coordination between the key stakeholders. This has led to inadequate funding being allocated to resolving the problem, not having a clear vision for training and employment in

Egypt in general, and finally the low quality of the training provided. There is a great need to institutionally figure out a way for proper evidence-based coordination of the efforts of relevant authorities in the higher education sector, and simultaneously of development partners interested in supporting the sector.

## 2.5.2. Curriculum mismatch with labour market needs

According to the focus group discussions, stakeholders stated that the current curricula are not linked to the labour market as the educational institutions do not keep pace with the developments in the labour market. There are new sectors and new kinds of jobs that have begun to emerge and there is a great need for attention to be directed by the educational institutions to address this deficiency in their curricula. Additionally, the curricula focus mostly on technical skills, and do not address other skills that university graduates lack, such as language and personal skills and others. These skills will be mentioned in detail later. As a result, the students experience a culture shock once they graduate and start working, because they realize that they had relied heavily on academic theoretical studies during their

university years, and these are far removed from the labour market requirements. Moreover, changing the curriculum is difficult in public higher education institutes. Any change has to go through a complicated review process, in addition to the resistance usually expressed by faculty members to any interference, or suggested change, to their curricula.

### **Sample of the new specializations and jobs required in the labour market:**

Digital Marketing, Artificial Intelligence, Big Data and Cloud Computing, Graphic Design, Shadow Teacher, etc.

### 2.5.3. Outdated teaching methodology and lack of practical training

The current traditional education system focuses more on rote learning, a matter which contributes to the overall poor quality of the education system and does not prepare graduates for the professional work environment through application-oriented approaches. To fill this gap, graduates have to go through foundation training programs for a few months before they start on any job (Mishra et al., 2019).

Despite the similarity between the Egyptian curricula and international curricula, the teaching methods do not make students self-reliant and/or capable of searching for information on their own. There is a problem with the skills of new graduates, as knowledge can be learned from books, training courses and studies, but skills must be practiced, and therefore they are more difficult to acquire, and their acquisition process may consume a lot of time. The curricula and teaching methods don't provide the students with the practical perspective of things, and therefore, the graduates end up deprived of the basic information related to practice needed in the labour market.

According to the focus group discussions, the main challenges in educational methodologies and tools that contribute to the creation of a gap between educational outputs and labour market needs include the following:

- Lack of practical training during the years of study and lack of sufficient practical aspects in the curriculum;

- Lack of educational trips to different sectors and companies;
- Lack of research laboratories that are equipped with the most up-to-date equipment;
- Many of the students' graduation projects are repetitive, traditional, and not linked to the needs and the development of the labour market.

Because of the lack of practical training acquired by university graduates during their study years, hiring companies are forced to train the new hires themselves to get them to do the job. This represents a great burden on the companies. For example, in the IT field, programming has become the current revolution worldwide and has become one of the basic skills to look for in new hires. There are programs and programming languages that are now taught to children in schools in developed countries, while recent graduates from public universities in Egypt are not aware or familiar with them.

Another challenge, pointed out during the focus group discussions, is that some faculty members lack the proper training and awareness themselves about the tools and methodologies needed to link theory to practice within the curriculum. They may also often lack practical experience in the labour market, as they join the academic career just after graduation. That is why they may not be able to inform the students about the realities of the labour market and its needs.

## 3. Previous Governmental Policies and Interventions

Over the past couple of decades, the GOE has pursued a number of policies and implemented a number of interventions to try to deal with the employability skills gap in higher education, whether directly or indirectly.

### 3.1. The National Authority for Quality Assurance and Accreditation of Education (NAQAAE)

The National Authority for Quality Assurance and Accreditation of Education 'NAQAAE', is an independent public authority that was established by virtue of Law No. 82 for the year 2006. NAQAAE reports to the Egyptian President, Prime Minister, and Parliament. NAQAAE's mandate is to review how higher education providers, such as universities and colleges, maintain the quality of their academic standards to ensure that students receive a high-quality experience of higher education (NAQAAE, 2022). NAQAAE provides technical support to identify the national priorities and associated capacity-building requirements, raising awareness of opportunities and promoting the ownership of recommended programs. NAQAAE's core objectives include coordinating with educational institutes to reach an integrated system of quality standards and performance assessment mechanisms and building confidence in the quality of outcomes of the whole educational process at the national and international level (NAQAAE, 2022).

NAQAAE works to spread the culture of the quality of education within the higher education institutions. It provides the necessary training to develop the capabilities of its members, and the necessary technical support to prepare institutions to apply for accreditation. This is in accordance with an integrated system of standards that

comply with international standards, but still maintains the national identity in order to build confidence in the Egyptian educational product locally and internationally (NAQAAE, 2022).

One of the main programs at NAQAAE is the coordination of the 'National Qualifications Framework' that aims at making the Egyptian education system of a high quality, capable of competing locally, regionally, and internationally. The determination of qualification levels is based on the exit from the learning process and the competencies guaranteed by any certificate obtained (NAQAAE, 2022).

One of the most important objectives of the National Qualifications Framework in Egypt is to define benchmarks for qualification levels based on learning outcomes and acquired competencies. It also provides a reference and standard for establishing qualifications frameworks at the sectoral levels and allows for the comparison of different Egyptian qualifications with their equivalents in other countries. It also allows cross-border movement between education systems and labour markets and tries to develop the community's confidence in educational outcomes, in order to meet employers' expectations at the different levels of qualifications (NAQAAE, 2022).

The National Qualifications Framework has identified eight levels that represent increasing degrees of learning, expressed in the form of general learning outcomes. The first level is equivalent to the primary certificate, and the highest is the eighth level equivalent to the doctorate degree. Each level is described by the characteristics possessed by the holder of a qualification at this level in terms of knowledge, skills, and competencies. The National Qualifications Framework is mandated to develop 'Qualifications Description Cards' for all Egyptian general qualifications. The purpose of these Qualifications Description Cards is

to provide an explanation of the framework, set the general guidelines for vertical and horizontal transition within the framework, and verify the creation of new qualifications based on the dynamics of the labour market (NAQAAE, 2022).

NAQAAE is a relatively new organization and has a lot of achievements. However, there is still a need for further improvements to enable it to overcome the internal administrative challenges and limitations and carry out accreditations on a wider scope within Egypt (Schomaker, 2014).

## 3.2. Higher Education Observatory

The Higher Education Observatory was established under the 'Higher Education Development Studies and Research Unit' at the Ministry of Higher Education (MOHESR, 2022). The observatory collects and analyzes data, statistics and information on higher education, the needs of the local and regional labour market, and the demand and supply forces of the labour market. The main mission is to support the development of the higher education sector and improve its performance.

The main objectives of the observatory include:

- Studying the nature of the labour force and the labour market in Egypt and the most important problems they face;
  - Building an information system for the labour market in Egypt and its components, and identifying the requirements of the labour market in Egypt;
  - Identifying the internal and external trends of the labour market, and providing information for guidance, counseling and awareness services;
  - Providing implementation methods and mechanisms to assist partners at the national, local and community levels to meet the needs and requirements of the labour market, and develop an information base for higher education indicators.
- Monitoring the current conditions of the higher education sector, and identifying priority issues in the development and improvement of higher education outcomes;

### 3.3. Egyptian Observatory for Education, Training and Employment (EOETE)

Egypt Observatory for Education, Training and Employment (EOETE) was established in 2005 by the Information and Decision Support Center (IDSC) affiliated to the Prime Minister's office. The establishment of the EOETE was supported by the European Training Foundation and other institutions. The objective of establishing the observatory was to analyze information, and issue forecasts regarding the needs of education,

training and employment in order to meet the requirements of the labour market. The observatory released a handbook on vocational education and training indicators in the labour market, plus information databases covering the delta region, in addition to several forecast studies to provide advice to the government on how to effectively combat unemployment (Amer, 2012).

## 4. International Experiences

A lot of useful lessons can be gleaned from international experiences. We highlight here the work of one of the topnotch accreditation bodies, NASPAA and its work in linking theory to practice, plus how Malta developed an Employability Skills Index through cooperation between the government and the private sector, and how a Graduate Apprenticeship program was implemented in Scotland.

### 4.1. The Network of Schools of Public Policy, Affairs, and Administration (NASPAA)

NASPAA is a global standard and a global accreditor of master's degree programs in the fields of public affairs, public administration, public policy, nonprofit and related fields. NASPAA has identified 7 standards that form the quality benchmark used by graduate public service programs around the world (NASPAA, 2022):

1. managing the program strategically,
2. matching governance with the mission standard,
3. matching operations with the mission: faculty performance standard,
4. matching operations with the mission: serving students standard,
5. matching operations with the mission: student learning standard,
6. matching resources with the mission, and

7. matching communications with the mission, strategic planning and diversity.

The fifth standard, matching operations with the program mission, focuses on student learning and includes a substandard that discusses the professional competencies. This standard assesses the ability of the programs to use experiential learning and get students to apply what they learnt, through experiential exercises and interactions with practitioners. This standard asks three broad questions: What does the program expect the students to know and be able to do? How does the program assess how students are meeting the learning expectations? How does the program use assessment results for continuous program improvement? (NASPAA, 2022).

## 4.2. The development of the Employability Skills Index in Malta

In Malta in 2015, the Employment and Training Corporation in collaboration with the Ministry of Education and Employment in Malta launched the Employability Index to facilitate the transition from higher education to labour market and employment. The Employability

Index examines underemployment in Malta and identifies the graduates at higher risk of underemployment due to a mismatch between their education and their work (ETC and MEDE, 2015).

## 4.3. “Graduate Apprenticeship” program – Bridging digital skills gap in Scotland

The graduate apprenticeships program was established in 2017, by Skills Development Scotland / the Scottish Government through building partnerships with/between employers and Higher Education Institutes, aiming to address the digital skills shortage by increasing the numbers of students gaining higher-level digital skills to meet the evolving labour market needs (Taylor-Smith et al., 2019).

Graduate Apprenticeship is a degree program, where students are placed in a paid full-time

employment, while completing degrees. The participating universities in the program develop their curricula in coordination/ approval of industry-led technical expert groups to identify the necessary skills required. The program has different models: for example, students may study one day per week (on campus, online, or blended) with work-based learning throughout the year (Taylor-Smith et al., 2019).

## 5. Anticipated Policy Results and Proposed Policy Alternatives

Bridging the skills gap is beneficial for the job seekers, the workforce, the community, and the economy. That is why policy interventions should be effective in addressing the root causes of the problem and provide sustainable alternative solutions (Römgens, et al., 2020).

### 5.1. Anticipated policy results

The three main targeted policy results after resolving the employability gap problem, are having: students equipped with the required skills, curricula aligned with the labour market needs, teaching methods that link between

theory and practice, and qualified faculty capable of delivering the updated curricula and using the new teaching methods.

#### 5.1.1. Graduating students with the required labour market skills and competencies

A main targeted policy result is to be able to graduate students possessing the knowledge, skills, and competencies that conform with the labour market needs. Once the graduates transition to the labour market, ideally, they should be sufficiently resilient to be able to adapt to the dynamic and changing labour market needs by continuously working on their self-development. Many of the jobs currently in the

market were not there a decade ago: blogger, v-logger, content developer, copywriter, big data analyst, artificial intelligence engineers, graphic designer, webpage developer, etc. Graduates have to realize that knowledge acquisition and skills development is a continuous process. It does not end with their graduation.

#### 5.1.2. Aligning University Curricula with Labour Market needs

Higher education plays a significant role in supporting the national economies through creating a successful preparation for the graduates to the labour market (Aljohania et al., 2022). That is why academics and curriculum developers must continually scan and examine the labour market to identify the required skills and make sure their curricula are helping develop these required

skills (Aljohania et al., 2022). According to the focus group discussions, universities need to put greater emphasis on meeting students' expectations, to be able to achieve their ambition in meeting the needs of the target job market and find a suitable placement that matches their ambition (Aljohania et al., 2022).

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### 5.1.3. Updating teaching tools and methods to link theory to practice and emphasize the practical training of students

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Training students before graduation increases their contact with the labour market, which in turn increases their knowledge about labour law and their professional rights and duties. It would also inform them about the workplace culture, systems, and administrative structures. In addition to that, students will be able to practice the work lifestyle, which is completely different from the lifestyle of a university student.

Most importantly, they will get to know more about the technical knowledge and the core

and hard skills required in their industry, so they will be able to identify the areas they need to improve and work on before they graduate and be prepared for the labour market. Moreover, it provides students with a sound knowledge of their preferred career path. Practical training would also save the employer the cost of having to train the newly hired employees after their graduating from university (UCCD, 2022).

## 5.2. Proposed policy alternatives

To be able to realize the three desired policy results of equipping graduates with the needed competencies, updating curricula,

changing teaching methods, and qualifying faculty to deliver, five policy alternatives are suggested.

### Alternative One:

**Maintain and support a mechanism for active collection, analysis, reporting and disseminating comprehensive data on labour market needs possibly housed and managed by CAPMAS (Employability Skills Index)**

Building on the efforts of the Higher Education Observatory, IDSC, and CAPMAS, a mechanism for active collection, analysis, reporting and dissemination of comprehensive data on labour market should be maintained and supported. The data analysis should provide recommendations to both the macro and micro levels of decision making in the HE system: the Minister of Higher Education, university presidents, school deans, department chairs, program directors, etc. The results and recommendations should be shared in a timely manner with HE institutes, and all relevant stakeholders.

This alternative requires coordination between all relevant stakeholders to agree on the set of indicators that measures labour market needs, how to link it to higher education outputs and identify mechanisms and responsibilities for data collection. It was recommended to make it clear in an index, such as the 'Employability Skills Index'. The index identifies which indicators to be collected and reported by each stakeholder. Thus, each stakeholder is assigned a clear responsibility and held accountable for effective data collection for his/her specific set of indicators. This would help enhance the sense of ownership by the different parties. For an effective operational modality, this index could be possibly housed and managed by CAPMAS, and CAPMAS can coordinate with the other institutions how to integrate the collected data to develop the required Employability Index. The reports developed should be able to provide information on the needs of the labour market in Egypt in general, the needs according to the geographical areas, and the needs according to

different sectors and industries. Thus, universities can do the required updates, decide on the topics needed to be added to the curriculum, and the skills and competencies needed to be strengthened and developed. For transparency purposes, the raw data and the analysis should be made available to the different stakeholders: higher education institutes, employers, etc.

This alternative requires a coordination between all relevant stakeholders to agree on the set of indicators that measures labour market needs and how to link it to higher education outputs and identify mechanisms and responsibilities for data collection. It was recommended that to make it clear in the index which indicators are being collected and reported by each stakeholder.

## Alternative Two:

Incorporate a new standard for linking theory to practice within NAQAAE's assessment of quality of HE programs with clear KPIs

Linking theory to practice has been identified as a crucial need by all concerned stakeholders, including students. To effectively do that, a new standard should be incorporated within NAQAAE's assessment of quality of HE programs to assess how the programs link theory to practice using clear KPIs.

Linking theory to practice should not be limited to only aligning the curriculum to labour market needs as stated in the 7th criterion of 'Education' in NAQAAE's Universities Accreditation Criteria: "The university has mechanisms to ensure the suitability of educational programs to the requirements of the labour market". The concept of linking theory to practice should also include clear criteria for assessing how educational programs use experiential learning, skills-based education, project-based learning, give practical assignments, work-based learning, and practicums.

### Example of Linking Theory to Practice through Extra-Curricular Activities: The Public Policy Hub Project at the School of Global Affairs and Public Policy (GAPP):

The Public Policy Hub (PPH) is a pilot project that aims to build the capacity of young Egyptian scholars/MA students in developing evidence-based public policy research and effective public policy advocacy and communication. Students joining the PPH in any round of operations receive intensive training on public policy analysis and are divided into teams. Each team is assigned a policy issue to work on, is supervised by a faculty mentor, and within three to four months is expected to come up with a policy research paper, and a policy brief. Link to PPH Webpage: <https://gapp.aucegypt.edu/public-policy-hub>

Skill-based education	Project-based learning/practical assignments	Work-based learning/practicum
<p>Skill-based education, in addition to developing the theoretical knowledge, practical and experiential methods should focus on developing the required essential and behavioral skills such as: problem solving skills, decision making skills, innovation and creative thinking, leadership skills, communication skills, self-management, and digital literacy.</p>	<p>Project based learning/practical assignments, is based on the application of the theoretical concepts and principles through involving students in academic projects. It also facilitates the development of the core and hard skills of the students in accordance with their academic needs.</p>	<p>Work based learning/practicum, is based on the students' placement in internship opportunities in organizations and institutions in the labour market, through which they learn the practical knowledge about their industry and how it operates and exposes students to the current realities of the workplace.</p>

**Alternative Two: Incorporate a new standard for linking theory to practice within NAQAAE's assessment of quality of HE programs with clear KPIs.**

To effectively implement this alternative, the standard for linking theory to practice will be needed for the accreditation of all programs. Additionally, there should be programs for upskilling faculty members through providing

special capacity building programs so they can use more innovative teaching methods and techniques to better link between theory and practice.

**Alternative Three:**

**Establish performance-based budgeting for universities linked to their ability to bridge the employability gap**

An incentive system should be developed so that the universities that provide evidence for establishing a solid link between theory and practice, and for bridging the employability gap, as assessed and measured by agreed to KPIs, should be entitled to additional budget allocations from the central level, to incentivize them and motivate others to follow suit. The budgetary allocations will be to the university as a whole in recognition of its achievements in solidifying the link between theory and practice. Each university can figure out the best way to incentivize its faculty and staff.

The Ministry of Higher Education should emphasize the importance of international accreditation of programs and offering incentives to programs, faculties and universities which manage to achieve international accreditation. Part and parcel of the international accreditation of programs is the emphasis on linking theory to practice. Additionally, an M&E system should be developed to assess the education output, taking into account the link between theory and practice standards (output and outcome). This system should be linked to the developed incentive system.

**Alternative Four:**

**Revamp University Centers for Career Development within universities and widening their scope of work**

University centers for career development could be an effective operation unit at the local level in each university, their main role is to include periodic hearings and consultations with potential employers, trainings and capacity building workshops for students and graduates to develop required competencies, career counseling and advice services, organizing employment fairs, and coordinating job and internship placement in the labour market.

To ensure an effective role for the UCCDs, it is recommended to establish the national and local networks/taskforces for higher

education outcomes. These networks/taskforces will act as an official network for all concerned stakeholders: government, private sector, start-ups, syndicate, civil society, student clubs, students, etc. The network will facilitate the dialogue among these stakeholders to achieve the following: collect data on labour market needs, coordination of joint programs and projects for bridging the skills gap such as capacity building programs, coordinating internship opportunities, organizing employment fairs, etc.

**Alternative  
Five:****Revise the faculty promotion and appraisal system to include measures for linking theory to practice**

Currently the main bulk of evaluation points awarded to faculty for the purpose of their promotion from one rank to another depends on their publication record. Less than 30% of points are awarded to the service record. The policy suggested to introduce a change to the promotion and appraisal system of faculty in higher education institutes so that there

are points for their ability to demonstrate how they updated their curricula and how they link what they teach to practice and to the needs of the labour market. This will be a strong incentive for faculty to work on regularly updating of curricula and teaching methods.

## 6. Recommendations

### 6.1. Alternatives' Assessment Criteria

The paper will assess the proposed alternative based on the following criteria:

**Political acceptance:** This criterion assesses to what extent a proposed policy alternative will be acceptable to relevant stakeholders: the cabinet, the Ministry of Higher Education and Scientific Research, the Supreme Council of Universities, university presidents, faculty members, employers, etc.

**Economic viability:** This criterion assesses the impact of the proposed policy on the government expenditure on higher education and its feasibility within the framework of the current economic situation on the macro and micro levels.

**Administrative/institutional feasibility:** This criterion assesses the administrative ability to implement the proposed policy if the targeted institution/department has the authority and the resources to implement the proposed policy. In addition to that, it assesses how the laws/ internal regulations/bylaws that support the implementation of the proposed policy.

Criteria \ Alternatives	Political acceptance	Economic viability	Administrative/ institutional feasibility
<b>Alternative One:</b> Maintain and support a mechanism for active collection, analysis, reporting and the dissemination of comprehensive data on labour market needs possibly housed and managed by CAPMAS (Employability skills Index)	Perceived as acceptable and CAPMAS is to make sure to give credit to all sources of data collected and the organizations that collected the data to enhance acceptability.	Requires some financial resources to be allocated to hire administrative and data inputting personnel and to implement surveys needed for data collection.	Perceived as feasible with the necessary institutional coordination mechanism.
<b>Alternative Two:</b> Incorporate a new standard for linking theory to practice within NAQAEE's assessment of quality of HE programs with clear KPIs	Perceived as politically acceptable as it meets international quality measures and national priorities and goals.	Resources will be needed in the different HE institutes to be able to implement a better link between theory and practice. This requires greater investments by the Ministry of Higher Education.	Some additional support services are needed. Labs should be better equipped, support staff hired to implement field trips, and financial resources allocated.

## 6.1. Alternatives' assessment criteria

Criteria Alternatives	Political acceptance	Economic viability	Administrative/ institutional feasibility
<p><b>Alternative Three:</b> Performance-based budgeting for universities linked to their ability to bridge the employability gap</p>	<p>Already HE institutes are piloting the use of performance budgets in parallel to line-item budgets.</p>	<p>Despite the fact that spending more on HE may not be politically acceptable with the tight financial resources available for the educational sector as a whole and the difficult economic situation Egypt is going through currently, it may be a mechanism for implementing a more rational use of resources. Only those who demonstrate a good link between theory and practice will receive additional budgetary allocations.</p>	<p>Budgetary teams in HE institutes already trained in developing performance-based budgets.</p>
<p><b>Alternative Four:</b> Revamp University Centers for Career Development within universities and widening their scope of work</p>	<p>Already received training and partnered with UCCD Project implemented by ILO and AUC so the idea is acceptable.</p>	<p>A sustained source for funding for the revamping and the support of the Career Centers are needed beyond the funding coming from international funding.</p>	<p>The staff has already received training.</p>
<p><b>Alternative Five:</b> Revise the faculty promotion and appraisal system to include measures for linking theory to practice</p>	<p>Politically acceptable with some potential resistance from faculty, but this resistance can be surmounted.</p>	<p>Needs resources to be made available for faculty support.</p>	<p>Administrative support can be provided from the career centers provided they have access to resources</p>

## 6.2. Recommended Alternatives

1. Based on the previous assessment, the first recommended alternative is to establish a system for active collection, analysis, reporting and dissemination of comprehensive data on the labour market, such as the Employability Skills Index. This index will identify the indicators that measure the labour market needs on the macro and micro level.
2. The second recommended alternative is to make sure there is an incentive system that guarantees the sustainable link between theory and practice in all HE programs through merging between alternatives 2, 3 and 5, that is working on the incorporation of quality standards requiring linking theory to practice in NAQAAE's accreditation, making this link part of the evaluation of faculty's promotion portfolios, and through using performance-based budgeting rewarding HE institutions that manage to solidify this link. All the above alternatives are perceived as politically acceptable, economically viable and administratively feasible to start with.
3. Finally, the third recommendation would be to further enhance and expand the role of the University Centers for Career Development so as to provide services, such as: periodic hearings and consultations with potential employers, trainings and capacity building workshops for students and graduates to develop required competencies, career counseling and advice services, employment fairs, and job and internship placements in labour market. They may also be relied on to provide support to faculty working on linking theory to practice to meet accreditation needs and to promotion requirements. Additionally, UCCDs can also collect data on the labour market needs using the index developed. It is recommended to capitalize on the efforts done to build the capacities of the employees of the UCCDs in performing surveys for the employers provided by the International Labour Organization for the UCCD employees at 12 universities. However, UCCDs need additional sustainable funding sources that would enable them to play this expanded and enhanced role.

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# THE PUBLIC POLICY HUB

## Where Rigour Meets Creativity

The Public Policy HUB is an initiative that was developed at the School of Global Affairs and Public Policy (GAPP) in October 2017. It was designed to fill in the policy research gap in Egypt. It provides the mechanism by which the good ideas, plausible answers, and meaningful solutions to Egypt's chronic and acute policy dilemmas that are proposed by the country's best minds, the experienced and the creative from different age brackets, can be nurtured, discussed, debated, refined, tested and presented to policymakers in a format that is systematic, highly-visible and most likely to have a lasting impact.

It is designed to develop a cadre of well-informed and seasoned policy developers and advocates, while simultaneously fostering and promoting creative solutions to the challenges facing Egypt today. The project provides a processing unit or hub where policy teams are formed on a regular basis, combining experienced policy scholars/mentors with young creative policy analysts, provide them with the needed resources, training, exposure, space, tools, networks, knowledge and contacts to enable them to come up with sound, rigorous and yet creative policy solutions that have a greater potential to be effectively advocated and communicated to the relevant policymakers and to the general public.

Since its establishment, the Public Policy HUB has been supported by Carnegie Corporation of New York, UNICEF Egypt, and Oxfam. The Hub had partnerships with different ministries and governmental institutions like the Ministry of Social Solidarity, Ministry of Planning, Ministry of Health, Ministry of Trade and Industry, Ministry of Local Development, Ministry of Education, Ministry of Environment, National Council for Childhood and Motherhood, National Population Council, and General Authority For Transportation Projects Planning.

**The School of Global Affairs and Public Policy  
The American University in Cairo – New Cairo Campus  
Jameel Building**

**<https://gapp.aucegypt.edu/public-policy-hub>**

Contact us on: **[policyhub@aucegypt.edu](mailto:policyhub@aucegypt.edu)**

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