How Are Egyptian Agricultural Students Preparing for a Career?

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Abstract

Egypt has made substantial progress in access to education. However, a high unemployment rate among university graduates and employers being unable to find a skilled workforce are of great concern. A pragmatic approach for education that enables student to participate in career preparation activities in and outside the classrooms and prepare them for a job following their graduation is of paramount importance. Soliciting opinions from undergraduate students and professors in five agricultural universities and employers from major agricultural industries in Egypt this study aimed to identify student participation in career preparation activities, ascertain major sources for career advice and information about their prospective careers and preparation for those careers. The findings revealed that students had limited opportunities to practice in their career skill-building through their coursework activities. For a majority of the students, professors and university graduates were the primary sources for career advice. Students seldom visited career services offices and did not quite utilize their services, but frequently browsed websites of potential employers. Career advising services appeared to be below the students' expectations across the universities. Strategies and policies are needed to strengthen career advisory services at universities to improve graduates' chances of obtaining meaningful employment in their fields of study.

Keywords: Career preparedness, sources of career advice, undergraduate students, skills

Introduction

Egypt has made substantial progress with respect to providing access to education, with efforts now focused on improving and sustaining the quality of education. However, education in Egypt has struggled with a knowledge-skills gap (Khalil, 2017) resulting in unemployment rates among university graduates far exceeding the national average and employers being unable to recruit a skilled workforce (Semlali & Angel-Urdinola, 2012). The World Bank (2014) reports that private companies struggled to find qualified candidates to fill around 600,000 vacancies despite the large pool of job seekers. Frequent turnover in jobs leading to gaps in employment and persistent information gap among job seekers about their career path and job openings are common in Egypt. Galal (2002) warns these constraints are persistent for many years and are pervasive across many job categories and levels and he reiterates that "Not only is the education system producing the wrong mix, but also the wrong quality" (p.7).

In Egypt, unemployment remains a persistent and growing challenge. Starting in 2016, Egypt has experienced a youth bulge. With these younger individuals entering the job market, youth unemployment has climbed to 26.7% (CAPMAS, 2016; Ghafar, 2016). University graduates constitute the largest unemployed youth group (Barsoum, Ramadan & Mostafa, , 2014; Assaad & Krafft, 2016; Said, 2014). Al-Harthi (2011) finds that Egyptian university students have a lack of confidence in their university degrees and doubt that their university curricula can prepare them for the job market. Collectively, these reports highlight concerns about Egypt's higher education system and its quality of human capital endowments.

The specific shortfalls in Egypt's education system are the subjects of numerous studies. The 2012 Egypt Labor Market Panel Survey showed that outside of traditional coursework 90% of the workers reported not having attended any career preparatory training program at the university to help in finding jobs or how to succeed in those jobs (Assad & Krafft, 2016). The Survey of Young People in Egypt (SYPE) in 2014 reinforced the 2012 survey findings reporting that the percentage of employed youth (aged 15-29 years) who reported learning the skills required for their job through formal education and vocational training declined significantly (Roushdy & Sieverding 2015). The disconnect between the knowledge and skills offered at universities and the competencies sought by employers in their employees is at least in part due to the supply-driven education system (Assaad & Barsoum, 2007; Semlali & Angel-Urdinola, 2012). This is happening despite the fact that there has been significant growth in private tertiary education systems in Egypt and enrollment in these institutions are in the rise (Serag, 2017).

Exchange of information between job seekers and prospective employers; access to career counseling, providing equal opportunities to all including women,

students of marginalized groups in finding gainful employment; and on the job training to build experience are identified as potential strategies to increase students' employability (Elia, 2021; Furbish et al., 2016). In line with these recommendations, Helmy (2017) proposes the launch of "a comprehensive skills development and employment program" targeting freshmen. The program focuses on developing a skilled workforce through training, mentoring, and career counseling with the aim of assisting youth to make better career choices and to increase their employability. Further, the use of technology-based solutions is identified as an option to overcome the information gap. Swanson, Barrick, & Samy (2007) on the other hands note persistent gap between academic and private sector in many developing countries and the necessity for orientation for teachers on soft skills so that they could prepare students for the same.

According to Student Development Theory, becoming knowledgeable, skillful, and intellectual in their chosen field and setting clear career goals and preparing for careers in line with their educational preparedness are key abilities students are expected to attain in colleges (Chickering & Reisser, 1993). Students utilize their education and get and/or seek suggestions from career service staff, academic advisors, counselors, and peers in their colleges to acquire essential knowledge and skills about their career preparation as expected by their potential employers (AASCU, 2021). Alternatively, it is the responsibility of colleges to help students with acquiring the above attributes and develop themselves as responsible members of the community. The education helps college students (undergraduates in particular) to gradually transition to interdependence, develop interpersonal relationships, establish their own identity, and learn integrity (Chickering & Reisser, 1993). Having these attributes along with essential knowledge and skills—technical and soft skills—are necessary for students' career preparation and success in their subsequent careers (Rothman & Hillman, 2008).

Employers are increasingly looking for new hires with not only technical skills but soft skills because employees who possess both technical (hard skills) and soft skills are more innovative and efficient (Hendarman & Cantner, 2018). Employers value employees with soft skills such as diversity, leadership, conflict management, teamwork, planning, leadership, and working in diverse and similar backgrounds (Chiara & Magali, 2020; Royo, 2019). Graduates who could successfully examine the strengths and weaknesses of their own views on a subject areas or topic; learn something that change their understanding of an issue or concept; integrate ideas, concepts, and theories taught in various courses; integrate ideas, concepts, and theories from different courses into class assignments; apply coursework to solve practical problems; and are able to analyze basic elements of a concept, experience, or theory are destined be

successful professionally and intellectually (Hart Research Associate, 2013; Chiara & Magali, 2020; Royo, 2019).

Examining case-studies or situations in depth; and studying real-world examples of the applications of what is learned in the classroom are other attributes essential to new graduates. Being able to effectively communicate within and outside own organizations is one of the critically important traits of new hires and students learn those skills at their colleges. Specific skills related to communication that new hires are expected to have been making presentations, writing papers or reports, working on collaborative projects, and using computer and associated digital tools (MS Office, email, internet, etc.). Soft skills help people to adapt and behave positively so that they can deal effectively with the challenges of their professional and everyday life (Haselberger et al., 2012; Hendarman & Cantner, 2018). Study examining whether and how undergraduate students in Egypt have been taught these skills is lacking.

The importance of career guidance among students is generally recognized as crucial for students to identify their majors and future employment pathways in their fields of study (OECD, 2015). OECD (20150 adds that good career guidance provides accurate, comprehensive, and up-to-date information on all the options available to a student, both within the college and elsewhere, at key points of transition, and direct them in progressive paths.

Common examples of resources for students with career advising include career counselling, online job boards and resources, career fairs, information sessions, professional development and personality assessments, classroom presentations on career opportunities, internship opportunities and placements, and assisting employers with recruitment and hiring (Usher, Kwong, & Mentanko, 2014). In many universities, career preparation is considered as an integral part of student mentoring where professors or university staff are charged with guiding students through not only academics but post-graduation planning (Regins & Cotton, 1999). There is also a practice of informal mentoring and students from middle- and upper-income backgrounds receive informal mentoring from their friends and family members (Regins & Cotton, 1999). As such, career advice is particularly very useful for first-generation students who would have fewer avenues for career advice and have limited exposure to the university system and associated career pathways (Rothman & Hillman, 2008). In order to facilitate students with transition to a career, colleges have to be proactive in understanding and providing all possible resources so that students can utilize such resources (Suvedi & Ghimire, 2016).

Effective career advising earlier in the students' academic career is paramount as it creates opportunities for numerous interactions and interventions during a student's college/university life (Gordon, 2006; Koring & Reid, 2009). For most students, career advising, and preparation begins with career

exploration. Career exploration affords students the opportunity to learn more about themselves as well as about the job market and make connections to their educational goals (Lynch & Lungrin, 2018). Students who have well defined career goals have a better opportunity to align their academic program to reach those goals. As a result, these students may be more confident and willing to pursue opportunities outside the classroom that facilitate their skill development and experience and are more likely to make connections and find mentors upon entering their chosen career fields (Hull-Blanks et al., 2005). In the contrary, often, undergraduates tend to fail to engage with Career Services until they begin their job search in the latter half of their college careers (Lynch & Lungrin, 2018).

Students' demographic and sociocultural status may affect their access to and use of resources for learning and career preparation (Phinney, 2003). For example, underrepresented minority students may have more difficulties than others in accessing and utilizing college resources (Phinney, 2003). These students may not find their university environments welcoming and also do not find university services aiming to help them adopt and learn. To address this, Usher, Kwong and Mentanko (2014) suggest that colleges should reach out to students regularly, solicit their input, and improve service delivery per their input. Universities should provide services to improve their job-seeking skills and scale up career related outreach activities rather than just providing information on job opportunities.

High unemployment rates and deteriorating economies contribute to social conflict and instability (Mohamed, Skinner, & Trines, 2019). Addressing prevailing education-occupation mismatches through career preparation activities may curtail unemployment rates in Egypt. To do so, it is important to have a basal understanding of how Egyptian universities currently prepare their students for career opportunities. To date, however, there are no publicly available assessments of the career preparation services offered by universities, and as importantly, those services that are utilized by students.

In 2019, as part of a needs assessment aimed at defining determinants that increase Egyptian agriculture students' employability, surveys were conducted at five universities in Egypt to gather information from current agriculture university students and professors. The overarching objective of the study was to examine how undergraduate students in agriculture colleges in Egypt prepare themselves for a career. The goal was to identify missing career preparation activities, if any, and recommend introducing them to improve students' employability. Specific objectives were to i) determine programs or resources available for career preparation to students and how these resources for career preparation were utilized; ii) assess student and professor's perceptions of the frequency of teaching of soft skills through coursework; and iii) examine differences in students' involvement in career preparation services by their demographics.

Methodology

As direct consumers, students are immediately impacted by college academic and non-academic programs, including career advising; thus, students' input is critical in knowing and updating those programs. Teachers/professors teaching and advising also greatly affects students' learning and their preparation for career and success their post-graduation. As such, this study aggregated feedback from students and professors and sought input from both groups. The study population comprised of 779 current undergraduate students and 371 professors (included assistant, associate, and full professors) in faculties of agriculture at Ain Sham University (ASU), Assuit University (AU), Benha University (BU), Cairo University (CU), and Suez Canal University (SCU). These five universities were where the USAID Center of Excellent for Agriculture project was being implemented, therefore chosen as a part of the needs assessment at the beginning of the project.

Data reported here were part of a five-part survey aimed at identifying determinants to employability in Egyptian agriculture university students. Part 1 sought to gather student demographics (age, gender, academic degree program), and factors motivating their decision to enter their field of study. Part 2 and 3 focused to determine the frequency that students were able to engage in the classrooms in various activities thought to lead to development of skills such as critical thinking and problem-solving skills, integrative and creative thinking skills, analytical skills, and communication skills along with students' perceptions of active-learning pedagogies. Part 4 specifically concentrated on career preparedness and advisory services and sought to collect information through 10 statements on key sources of advice and information on careers and finding employment, frequency of seeking advice, frequency of participating in career preparation activities (e.g., resume updates, career fairs, mock interviews, etc.), aspirations after graduation, and distance willing to relocate within Egypt for employment. In Part 5, students rated their perceptions on the level of various soft skills and competencies and appraised the value employers place on them. The professor survey also consisted of five parts focusing on respondents' teaching background and responsibilities, teaching style, perceptions on the value placed by employers in new employees on the same set of soft skills and competencies presented to students and their perception on the level of these skills and competencies in recent graduates, perceptions on future job growth areas in within agriculture sectors, and demographics. Both instruments contained a mix of dichotomous, multiple answer, scaled, and open-ended questions.

Questionnaires were developed in English and reviewed for soundness and cultural appropriateness by the U.S. faculty and Egyptian nationals. The revised questionnaires were translated to Egyptian Arabic, again reviewed by Egyptian faculty, and revised accordingly. Revised Arabic versions were then re-translated

back to English to ensure that Arabic versions of the questionnaires retained the integrity of the English versions. Subsequently, digital versions of the questionnaires were created using Qualtrics XM software (Seattle, Washington). Both hard-copy and digital versions of each questionnaire were then tested for mechanic soundness, including suitability to intended audience groups, time needed to complete, ambiguity of words, interpretation of questions, inability to answer a question, and sensitive questions. Purdue University Institutional Review Board reviewed all research instruments and study protocols and deemed this study exempt (#1906022352).

Students and faculty were informed of the objectives of the study and invited to participate through information sessions at each university and through social media (e.g., Facebook, WhatsApp). A link to the survey in Qualtrics was provided. The web survey was chosen because of the wide coverage of and/or accessible to digital technology (smart phone, internet, computer) in Egypt. The web survey is cost effective, user-friendly, respondents can complete at their pace and convenience, and generate a ready to analyze data (Wright, 2019). Individual's participation in the study was voluntary and anonymous and the data they provided were stored safely and confidentially. Data were collected in early June to mid-August 2019.

The completed paper surveys were assigned unique identification numbers and data were entered into Microsoft Excel. The recorded data were checked for errors and inconsistencies and cleaned where needed. Data from digital surveys in Qualtrics were retrieved as .csv files and uploaded to SPSS. Digital and manually entered data were merged, transferred to Statistical Package for the Social Sciences (SPSS; IBM, Inc., Armonk, NY) for analysis and comparison. Data were analyzed using descriptive statistics, independent sample t-tests and one-way ANOVA with Tukey post-hoc separation of means or least square differences. Values were considered statistically different at $p < 0.05$. Cronbach's alpha were calculated for a group of 16 soft skills including but not limited to critical thinking and problem-solving skills, integrative and creative thinking skills, analytical skills, and communication skills for student survey (.898) and professor or faculty survey responses (.940).

There are some limitations to note with regards to this study. First, data represent the views and perspectives of students and professors in the Faculties of Agriculture at the five universities selected for the COEA project. Therefore, the results may not necessarily represent views and experiences of all students and faculty across various faculties in the universities. Secondly, 60% of the respondents came from Cairo University and 33% from the Biotechnology department. There were observed differences on perception ratings by universities but not by respondent's field of study and this could result into some biases in the results.

Results

Respondents Details

Table 1 provides a demographic summary of undergraduate student respondents. Altogether, 779 responses from undergraduate students pursuing degrees in faculties of agriculture were included in the analysis. The majority of student respondents were female students (64.4%). Of those responding to the question on the level of education (N = 731), 34.5% were in Level 3, 25.8% in Level 2, 21.6% in Level 4, and 15.5% in Level 1. Almost all students (99%) were unmarried, and only two reported being disabled. Almost all (98%) students were Egyptian nationals. Students from Cairo University were in the majority (61.6%) followed by Assuit University (30.6%), Benha University (4.8%), and Suez Canal University (3.1%). No students represented Ain Sham University. Nearly one-third (27.6%) of the respondent students were enrolled in biotechnology program with 21.5% of them in the English-language track and 10.9% in Arabic-language track. Students in food science and animal production formed the next highest groups of respondents at 15.1% and 13.2%, respectively. By enrollment, Ain Shams University is the largest university in Egypt with 191,086 students in 2016 (CAPMAS, 2019). Enrollments in Assiut, Benha, Cairo and Suez Canal universities were 82,736; 89,471; 184,000; and 28,685, respectively. Academic departments within faculties of agriculture are largely consistent across universities.

Table 1
Respondent's Demographics

Students' attributes		*n*	*%*
Level of education completed (N=731)	Level 1	113	15.5
	Level 2	208	25.8
	Level 3	252	34.5
	Level 4	158	21.6
Gender (N=526)	Male	187	35.6
	Female	339	64.4
University (N=523)	Benha University	25	4.8
	Cairo University	322	61.6
	Assiut University	160	30.6
	Suez Canal University	16	3.1
Area of study (N=727)	Animal Production	96	13.2
	Plant Production	59	8.1
	Agricultural Economics and Social Sciences	16	2.2
	Soil and Water Sciences	16	2.2
	Food Sciences	110	15.1
	Plant Protection	44	6.1
	Biotechnology (Arabic)	79	10.9
	Agricultural Engineering	60	8.3
	Biotechnology (English)	156	21.5
	Food Processing Technology (English)	37	5.1
	International Agriculture (English)	10	1.4
	Others	44	6.1

Sources of and Frequency in Seeking Career Advice and Finding Employment

About one-third (30%) of the respondent students indicated that professors are their key source of advice for career planning while 22% indicated university graduates as their main source (Table 2). Parents or family also a played a notable role (18%) as source of careers and finding employment. The use of employment forum (12%) and professional services advisors at the university (7%) were less common. The percentage of the female students who relied on their professors, job fora, and university career advisors was more than males.

Table 2
Key Sources of Advice on Careers and Finding Employment

Source of advice	Total		Male	Female
	n	*%*	*n*	*%*
Professional service advisors at the university	38	6.5	6.5	7.4
Professors	175	29.9	28.0	31.2
Other students	43	7.3	8.6	7.1
Parents or family	103	17.6	19.4	15.7
Graduates	127	21.7	19.9	21.4
Employment forum	71	12.1	12.4	13.1
Curriculum vitae	29	4.9	5.4	4.2

Note. N = 586.

Career Preparation Activities

While student respondents browsed websites of potential employers 3-4 times a year, they visited career services office on campus, attended a career fair, sought feedback on resume/curriculum vitae (CV) only once or twice a year (Table 3). Students indicated they depended more on internet searches for career preparation (3-4 times) than other activities. Nevertheless, this survey did not capture the quality of the information students viewed and gathered from online sources and was unable to ascertain if the sites (or any advice sources noted above) truly provide useful information and materials that would help them prepare for their careers. Female students' engagement in career preparation activities was less than that of male students with the exception of "Visiting career services website" and "Browsing websites of potential employers". Significant difference ($p < 0.05$) between the two genders were found in their attendance in career fairs, participation in short-term work experiences, internships or field placements as well as participation in mock interviews.

Table 3
Participation in Career Preparation Activities by Gender

Career preparation activities	Total		Male (*n*=174)	Female (*n*=312)	*t*
	N	*M (SD)*			
Update CV	539	2.6 (1.0)	2.6 (1.1)	2.7 (1.1)	-0.217
Seeking feedback on resume/CV	523	2.9 (1.0)	2.8 (1.0)	3.0 (1.0)	-1.355
Visiting career services website	534	2.3 (1.1)	2.3 (1.6)	2.3 (1.1)	0.078
Visiting career services office on campus	528	3.2 (1.0)	3.1 (1.1)	3.3 (1.0)	-2.525*
Attending a career fair	530	3.0 (1.1)	2.8 (1.1)	3.1 (1.0)	-2.712**
Attending a career-related workshop, networking event, employer information session	532	2.7 (1.1)	2.6 (1.1)	2.8 (1.1)	-1.779
Browsing websites of potential employers	534	2.0 (1.0)	2.0 (1.0)	2.0 (1.0)	-0.786
Participating in short-term work experiences (e.g., summers) in my field of study	536	2.4 (1.1)	2.1 (1.1)	2.5 (1.2)	-3.375***
Conducting/completing internship or field placement	530	2.5 (1.1)	2.3 (1.1)	2.6 (1.1)	-3.169**
Participating in mock interviews	532	2.6 (1.1)	2.4 (1.1)	2.7 (1.1)	-2.682**

Note. $*p < .05$, $**p < .01$, $***p < .001$.
Scale. 1=<5 times, 2=3-4 times, 3=1-2 times, 4=Never.

      Assessment of career preparation activities by universities showed that differences in the frequency with which students (i) updated resumes/CVs, (ii) sought feedback on resume/CV, (iii) visited career services office on campus, (iv) participated in short-term exposure (summer work), and (v) participated on mock interviews (Table 4). Cairo University students reported they are more often using (i), and (v) than students of Assuit University. For (iv) i.e., participating in short-term exposure (summer work), CU students indicated using this service more times a year than students in Assuit, Benha, and Suez Canal. However, students of AU visit career services office on campus more frequently than students at other universities. The survey does not provide insights into the quality or availability of services provided by such offices but the fact that AU students rated that they visit the career service office more often implies that they perceive some utility in the service, perhaps more than students at other universities.

Table 4

Participation in Career Preparation Activities by University

Career preparation activities	BU (*n*=22)	CU (*n*=301)	AU (*n*=143)	SU (*n*=16)	Total (*N*=481)	*F*
Update CV/resume	3.0 (1.1)	2.5 (1.0)[a]	2.9 (1.1)[b]	3.1 (1.1)	2.6 (1.0)	7.993***
Seeking feedback on resume/CV	3.2 (1.0)	2.8 (1.0)	3.0 (1.0)	3.1 (1.1)	2.9 (1.0)	2.742*
Visiting career services website	2.4 (1.2)	2.2 (1.1)	2.4 (1.1)	2.5 (1.2)	2.3 (1.1)	1.791
Visiting career services office on campus	3.3 (1.1)	3.3 (0.9)[a]	2.9 (1.2)[b]	3.4 (0.8)	3.2 (1.0)	5.788***
Attending a career fair	3.3 (1.1)	3.0 (1.1)	2.8 (1.1)	3.1 (0.9)	3.0 (1.1)	1.541
Attending a career-related workshop, networking event, employer information session	2.9 (1.2)	2.7 (1.1)	2.8 (1.1)	2.9 (1.1)	2.7 (1.1)	0.373
Browsing websites of potential employers	2.0 (1.1)	2.0 (1.0)	2.0 (1.0)	2.6 (1.1)	2.0 (1.0)	2.116
Participating in short-term work experiences (e.g., summers) in my field of study	2.6 (1.2)	2.2 (1.1)[a]	2.5 (1.2)[b]	3.0 (1.0)[b]	2.3 (1.2)	5.190*
Conducting/completing internship or field placement	2.4 (1.2)	2.5 (1.1)	2.5 (1.1)	2.4 (1.1)	2.5 (1.1)	0.057
Participating in mock interviews	2.9 (1.2)	2.4 (1.1)[a]	2.9 (1.1)[b]	3.1 (1.0)	2.6 (1.1)	7.301***

Scale. 1=<5 times, 2=3-4 times, 3=1-2 times, 4=Never.

Note. BU=Benha University, CU=Cairo University, AU=Assuit University, SU=Suez Canal University

Mean values with different subscripts are different from each other.

Note. *p < .05, **p < .01, ***p < .001*.

Frequency in Practicing Soft Skills

Respondents were asked to indicate how often they have been taught16 skill sets through their coursework. They reported that "they often got to learning something that changed their understanding of an issue or concept" and got to practice "writing papers or reports". Less frequently than the above two, they practiced using digital tools such as Microsoft Office, email, and internet and worked on collaborative projects. Skills like "Conflict management" and "Working in teams of similar backgrounds and skills" are only practiced sometimes (Table 5).

Table 5

Frequency of Skills Practiced Through Coursework

Skills sets	N	M	SD	*Sig. dif. between pairs*
1. Examining the strengths and weaknesses of your own views on a subject areas or topic	600	2.2	1.0	vs 2, 3, 5, 10-16
2. Learning something that changed your understanding of an issue or concept	618	1.9	0.9	vs 3-10, 12-16
3. Integrating ideas, concepts, and theories from previous courses in new courses	622	2.1***	1.0	vs 5, 7, 9-10, 13-16
4. Integrating ideas, concepts, and theories from different courses into class assignments	619	2.1	1.1	vs 5, 7, 9-11, 13-16
5. Applying coursework to solve practical problems	618	2.4	1.2	vs 6-13
6. Ability to analyze basic elements of a concept, experience, or theory	616	2.2	1.0	vs 7, 10-16
7. Examining case-studies or situations in depth	617	2.3	1.1	Vs 8, 10-16
8. Studying real-world examples of the applications of what is learned in the classroom	617	2.1	1.1	Vs 9-16
9. Making presentations	611	2.3**	1.2	Vs 10-13, 15-16
10. Writing papers or reports	613	1.9	1.1	Vs 12-16
11. Working on collaborative projects	614	2.0*	1.2	Vs 13-16
12. Using digital tools (MS Office, email, internet, etc.)	616	2.0	1.2	Vs 13-16
13. Conflict management	595	2.8	1.3	vs 14, 15, 16
14. Leadership	590	2.4	1.3	NS
15. Working in teams of similar backgrounds and skills	607	2.5	1.2	NS
16. Working in teams of diverse backgrounds and skills	611	2.4	1.2	-

Scale. 1=almost always, 2=often, 3=sometimes, 4=seldom, 5=never

Note. $*p < .05$, $**p < .01$, $***p < .001$: Indicating differences in perceptions of males and females with females indicating practicing these skills more than males.

Students and faculty differed in their perception of frequency of 10 out of 16 skills practiced by students through coursework. For those 10 skill sets, professors reported that students more often practiced "Applying coursework to solve problems," "Making presentations," and "Working in teams of similar backgrounds and skills" than students reported. For the six other skills listed in Table 6, students indicated they more often practiced them than what professor reported.

Interestingly, the data shows that students and faculty differed in their opinions regarding the frequency to practice on 8 out of the 16 skills. As noted in Table 6, the professors stated that students often got opportunities to practice their presentation skills ($p<.001$) and work in teams of similar backgrounds and skills ($p<.05$) while students reported that they always got to learn something that changed their understanding of an issue or concept and more often got to practice integration of ideas, concepts, and theories from previous courses in new courses, was able to analyze basic elements of a concept, experience, or theory, and examine case-studies or situations in depth ($p<.001$).

Table 6

Differences in Perceptions of Frequency of Skills Practiced Through Coursework Between Professors and Students

Skills areas	Student			Professor			*t*
	n	*M*	*SD*	*n*	*M*	*SD*	
Examining the strengths and weaknesses of your own views on a subject areas or topic	600	2.2	1.0	304	2.4	0.8	2.358*
Learning something that changed your understanding of an issue or concept	618	1.9	0.9	304	2.3	0.7	7.157***
Integrating ideas, concepts, and theories from previous courses in new courses	622	2.1	1.0	301	2.3	0.8	3.888***
Integrating ideas, concepts, and theories from different courses into class assignments	619	2.1	1.1	303	2.3	0.8	2.621**
Applying coursework to solve practical problems	618	2.4	1.2	301	2.3	0.8	2.371*
Ability to analyze basic elements of a concept, experience, or theory	616	2.2	1.1	298	2.4	0.9	3.979***
Examining case-studies or situations in depth	617	2.3	1.1	299	2.5	0.9	3.544***
Studying real-world examples of the applications of what is learned in the classroom	617	2.1	1.1	296	2.2	0.8	1.52
Making presentations	611	2.3	1.2	301	2.0	0.8	3.789***
Writing papers or reports	613	1.9	1.1	300	2.1	0.9	2.824**
Working on collaborative projects	614	2.0	1.2	296	2.0	0.9	1.235
Using digital tools (MS Office, email, internet, etc.)	616	2.0	1.2	298	1.9	0.9	1.802
Conflict management	595	2.8	1.3	293	2.7	1.0	1.564
Leadership	590	2.4	1.3	288	2.5	1.0	0.841
Working in teams of similar backgrounds and skills	607	2.5	1.2	299	2.2	0.9	2.941**
Working in teams of diverse backgrounds and skills	611	2.4	1.2	298	2.5	1.0	1.242

Scale: 1=almost always, 2=often, 3=sometimes, 4=seldom, 5=never.
*Note. *p < .05, **p < .01, ***p < .001.*

Discussion and Conclusions

Universities farther from the national capital may have fewer resources and they appear to be lagging in offering right career advice and preparing their students for jobs. This could be due to spatial bias attributable to government failures to disperse resources equitably across its spheres of governance inherent in developing economies (Chambers, 1983).

Professors perceived students to have been practicing a set of essential soft skills more frequently through their coursework than what students themselves have perceived. Professors might be convinced that their curricula and learning objectives focus on building these skills while their students perceive it differently. A classic study from the late 1970s showcase that more than 90% of the professor have very high esteem with regard to their teaching skills and rate themselves above average (Cross, 1977). Undoubtedly, most faculty members get personal satisfaction from teaching and take pride in it, yet such attitudes can impair curriculum development and instructional innovation. Professors overestimated the competency of their students compared to employers who work with the same student populations (across all 35 skills offered) (Paul et al., 2020). Such higher rating to essential skills from professors need clarification given several challenges including but not limited to problem with monitoring, lack of evaluation and incentive system, lack of proper record keeping and follow-up of students' progresses facing public education system in Egypt (MPMAR, 2016). Lack of clearer learning objectives and outcomes and not using pedagogical approaches could lead to this gap.

Students' interactions with professors and knowledge and skills they gain in college and their involvement in career preparation activities outside their classrooms greatly influence their career trajectory and behavioral characteristics (Jackson & Wilton, 2017). In Egypt's case students appear to be relying on and trusting their professors more than they do others for career mentoring and job searching. They were minimally utilizing university career services offices for career preparation and job search. To sum up, the current educational approach of Egyptian universities focusing more on in-class and in learning text-book examples and cases is less effective in producing ready to be hired graduates. First, there is a mismatch between employers' expectation of competency in new hires and students' learning and preparation in colleges. It is therefore essential for universities to prepare and empower professors with training and tools to provide beneficial and tailored guidance to students. Second, the universities should be communicating with their alumni, seek their input about opportunities, constraints and challenges in job markets and address those issues through academic and career advising. Third, encourage professors to build trust and network with public and private sector organizations who hire their graduates. Professors should be the conduit between students and industries to avail

internship opportunities for students and remain informed of the private sector's needs in the new hires. Fourth, the universities should strengthen their career service offices and grant them more resources to serve the students better. Fifth, enable career counselors and advisers to engage in professional training to stay informed and current on job market requirements and trends. Finally, students should be encouraged, may be through their professors and/or advisors, to reach out to university career counselors for career guidance and preparation.

Career services at universities must adapt and evolve to cater to the aspirations of the students which may require mechanism to obtain feedback from students and employers and customization of services by disciplines. The universities located in the interior of the country and farther from the national capital must be fortified with resources, information, and personnel to provide a comparable service to those located in the cities. A network of career centers across the country can be created to benchmark quality of service and to share resources, for example, library resources, utilizing career advisor's services (virtually or in phone or through e-communication). It is also imperative to equip career services offices with necessary logistics such as job-search platforms and other software tools that can serve as resources for students to improve their CVs or find jobs. Universities need to build resources that assist students in transitioning from students to employees. For example, career counselors must be trained on how to use in-country and global resources and networks to provide a service valued by students and respected by employers. Professors must be oriented to offer preliminary career advice and be informed of the services provided by the career services office such that they can direct students requiring various job-related services to the appropriate career counselors. In summary, universities are advised to integrate students' career preparation program in their educational system and better prepare their career counselor offices and their faculty to preparing their students for their careers. Future research could be to give continuity this study every year and examine the trend in career preparation; and also to reach out to alumni to know what and how they have been doing after graduation and revise program accordingly to improve students' employability.

Acknowledgements

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