

The Doctorate: A Blessing or a Curse? Unemployed PhDs in Tunisia

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Introduction

Today, we are witnessing a proliferation of “unemployed PhDs” in Tunisia. At the beginning of 2024, between 3,500 and 4,500 unemployed PhD holders were reported in the country, while over the next two years an additional 13,750 PhD holders were expected to further aggravate a situation marked by a hiring freeze (Jelassi, 2024). Hundreds of PhD graduates from various disciplines (human and social sciences, natural sciences, technologies) find themselves trapped in a vicious cycle of unemployment and precariousness after years of research and personal investment. Their disillusionment is directly related to several structural dysfunctions: hiring freezes in higher education, meagre budgets allocated to research, and the absence of public policies aimed at valuing academic expertise within the private sector. For PhD holders, this results in perceived social downgrading, a lack of recognition, and economic marginalisation.

In this chapter we explore why unemployed Tunisian PhD holders are so attached to a career as a university teacher-researcher. In other words, why do they cling to this type of professional career when alternatives such as self-employment or entrepreneurship are available? We seek to understand the rationale behind this behaviour, which appears both irrational and emblematic. The chapter is based on our research into the explicit and implicit motivations for this career choice despite all the obstacles and restrictions to entering an academic career. We primarily employed Watt and Richardson’s “Factors Influencing Teaching Choice (FIT)” theory (2006). This theory is based on an expectancy-value motivational model (Richardson & Watt, 2010). The expectancy-value model, as adapted by Watt and Richardson (2007), aims to provide a comprehensive and coherent framework to guide research into the reasons behind career choice in teaching. This model comprises four components: (1) self-perception, (2) default career, (3) values, and (4) socialisation influence.

To answer our research question, we adopted a qualitative design (interpretivist approach) based on semi-structured interviews and a content analysis of the collected interviews. An exploratory field study was conducted using interviews with thirty unemployed PhD holders from all disciplines. The remainder of this chapter is organised into four sections. First, we present the theoretical framework underlying the research problem. Next, we outline the empirical framework, including the research methodology, and synthesise the findings obtained. Then, we discuss these findings considering the theoretical framework, namely the FIT-Choice model. Finally, we highlight the solutions and actions implemented by the Ministry of Higher Education and Scientific Research to help unemployed PhD holders find jobs.

The theoretical framework

Influences and motivations for choosing a career as a faculty member

As the salary yield associated with obtaining a PhD is limited (McClung, 2024), the canonical human capital investment model does not apply well to the doctoral degree: the cost/benefit ratio is not always in favour of PhD candidates (Boman et al., 2026). While in some countries, such as Germany, a PhD facilitates access to high-level positions, the situation is quite different in Tunisia (OECD, 2019). Moreover, in the field of R&D, young PhD holders face competition from engineers who are much more valued by employers (Margolis and Miotti, 2021). In addition, employers hold prejudices against doctoral training (Suomi et al., 2020). They consider it to be too specialised and purely theoretical and therefore believe it will not yield positive outcomes for the company (Seo et al., 2021).

According to Stellmacher et al. (2025), the underlying factors influencing the choice of an academic career appear to be intrinsic and immaterial. Self-image in the teaching context is built around values that prioritise interpersonal relationships and contact with young people. The aspiration to contribute to the social development of young people is closely intertwined with the construction of one's own identity within the educational environment and the pursuit of personal balance. Indeed, the act of teaching others also constitutes a process of self-learning and personal development. More than half of those who have chosen the academic carrier cite a memorable university lecturer as their model. In addition, the autonomy and independence that the profession offers remain highly sought-after features.

The motivations for an academic career are a combination of altruistic, intrinsic and extrinsic motivations. Altruistic motivations pertain to the pursuit of an activity that benefits the community. These motivations typically involve a desire to work with children or adolescents or to contribute to the betterment of society. Intrinsic motivations, on the other hand, are related to an interest in the activity itself, along with the pleasure and satisfaction that can be derived from it. An interest in the teaching activity or the desire to share one's knowledge and passion are two examples of such motivations. It is worth noting that some researchers include altruistic motivations within the category of intrinsic motivations (Adams et al., 2025). Finally, extrinsic motivations involve obtaining rewards in various forms. The working conditions, the vacations, the level of remuneration, or the prestige associated with the academic carrier's social status are all examples of extrinsic motivators for choosing this profession (David, 2023). Thus, altruistic, intrinsic, and extrinsic motivations approach the choice of the academic carrier from a decidedly rational perspective.

Furthermore, some studies have analysed the relationship between socio-demographic characteristics and the underlying motivations for choosing an academic career. According to Berger & D'Ascoli (2011), three socio-demographic characteristics predict career choice: region (culture), employment rate, and gender. A professional teaching status as a primary occupation is associated with higher values in the "perceptions of teaching abilities." These teachers also report having had positive past experiences and do not consider salary to be an important motivator. This indicates that full-time teachers enter the profession for reasons that are primarily social, without excluding personal reasons. Moreover, women appear to be significantly less influenced by their social environment and prior teaching experience and seem to be motivated more by personal utility values than men. This process

may be related to the fact that women are more inclined than men to seek part-time employment (D'Ascoli & Berger, 2012).

The “Factors Influencing Teaching” (FIT) theory

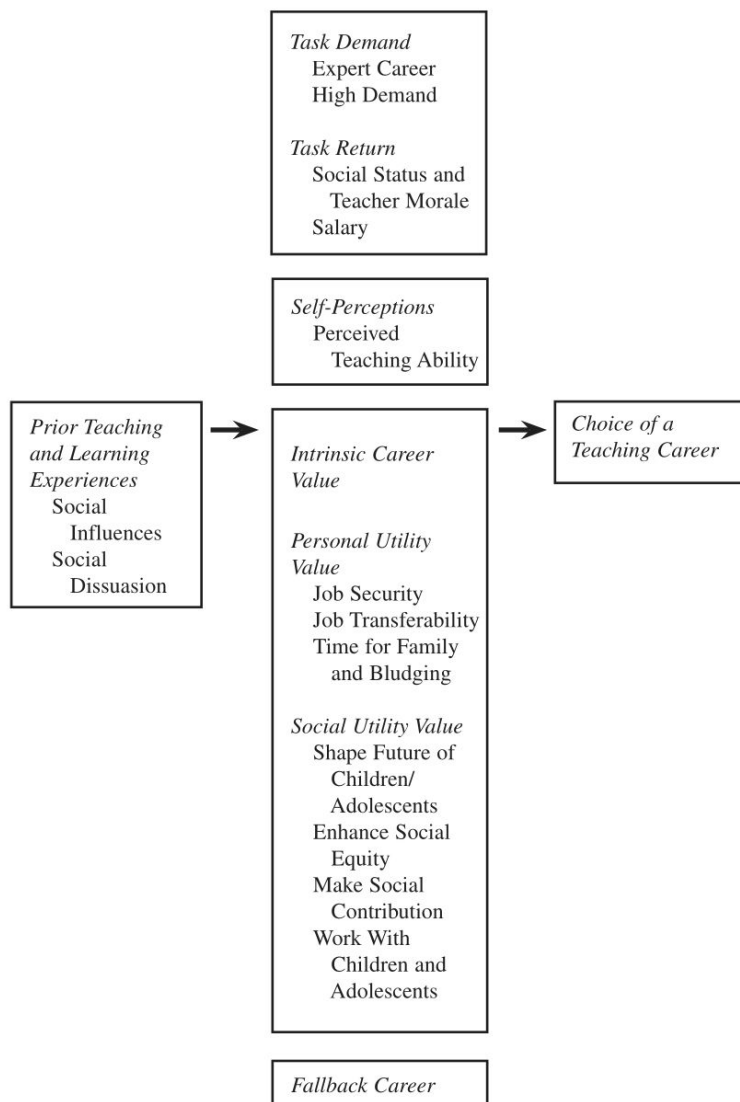


Figure 9.1. The “FIT-Choice” model

Source: (Watt & Richardson, 2007)

To understand the choice of the academic and teaching career, Watt and Richardson (2007) proposed a theoretical model called “Factors Influencing Teaching Choice” (FIT-Choice) that allows for a detailed analysis of the decision to pursue a teaching career. This theory is based on an expectancy–value motivational model (Watt & Richardson, 2007). This model highlights two types of perceptions that determine choices in certain areas: first, success expectations—that is, an individual’s perception of their own abilities and, second, the subjective value (positive or negative attributes) assigned to the task. The model incorporates different types of motivation, including intrinsic motivation, personal utility, and social utility, as well as self-perceptions of ability. Additionally, other predictive variables of a social, cultural, or personal experiential nature are also considered. The objective of this theoretical model is to explain the choices individuals make, along with their performance and persistence in various fields.

The FIT-Choice model considers, on the one hand, the main motivational factors leading to the choice of teaching, and on the other hand, the perceptions related to this profession. Regarding motivations, the model comprises four components: self-perceptions, default career, values, and the influence of socialisation. Within each of these components, several dimensions have been defined (14 in total).

Research methodology and results

This chapter adopts an interpretivist epistemological paradigm, given that the main objectives of the study are to uncover the factors motivating unemployed Tunisian PhD holders’ commitment to academic careers, and to examine their perceptions of the private sector as a potential alternative. We held semi-structured interviews with thirty unemployed PhD holders from a variety of disciplines: Sciences and Technologies (13.3 percent), Agri-food (3.3 percent), Electrical Engineering (30 percent), Mechanical Engineering (3.3 percent), Chemistry (3.3 percent), Biological Engineering (13.3 percent), Management Sciences (13.3 percent), Computer Science (6.7 percent), and Mathematics (13.3 percent). The respondents’ ages range from 30 to 46 years. Seven respondents (23.3 percent) were male, and 23 (76.7 percent) were female.

We present the principal findings in tabular format below, followed by a comprehensive discussion of these results.

Self-perception

Table 9.1. *Representations underpinning the choice of career*

Representations Underpinning the Choice of Career	N	%
Representation based on competence	11	36.66
Representation based on experience	4	13.33
Representation based on a mix of competence and experience	3	10
Representation based on aptitude	3	10

Representation based on scientific research	3	10
Others (knowledge, pedagogy, love of teaching, qualification, etc.)	6	20
Total	30	100

Socialisation influence

Table 9.2. *Influence of academic staff on career choice*

Influence of Academic staff	N	%
Yes	10	(33.33)
No	20	(66.67)
Total	30	100

Values and perceptions of a career as a university instructor

Table 9.3. *Benefits of a career in academia for PhD graduates.*

Advantages of the Career	Yes	Total (N)	%
Free time and vacations	27	30	90
Compatibility with family life (impact on children)	25	30	83.33
Stability and security	29	30	96.66
Contribution to society (transmission of values and knowledge)	29	30	96.66
Status and recognition (social image)	29	30	96.66
Affective perception (contact with students)	27	30	90
Attractiveness and demand (sense of social utility)	19	30	63.33
Rational perception and expertise (constant contact with the discipline)	30	30	100

Table 9.4. *Challenges of an academic career*

Disadvantages of the Career Choice	Yes	Total (N)	%
Difficulties related to research (research structures and the lengthy process)	10	30	33.33
Difficult students	3	30	10
Low remuneration	27	30	90
Devaluation of the university instructor profession	11	30	36.66
Lack of prospects	11	30	36.66

The elements of the default career choice

Table 9.5. *The default career choice (private sector) according to the interviewed unemployed PhDs*

Elements of the Default Career Choice	Yes	Total (N)	%
The main project (public research)	21	30	70
Working in the private sector	19	30	63.33
Business creation and self-employment	15	30	50
Recognition of skills	9	30	30
Connection with the private sphere	16	30	53.33
Information on professional integration	14	30	46.66

Link between thesis discipline and preference for the private sector

Table 9.6. *Link between thesis discipline and employment in the private sector*

Discipline / Working in the Private Sector	Yes	Total (N)	%
Engineering Sciences (Mechanical Engineering, Electrical Engineering, Biological Engineering)	10	14	71.42
Exact Sciences (Mathematics, Chemistry)	3	5	60
Technological Sciences, Computer Science, Agri-food Sciences	5	7	71.42
Management Sciences	1	4	25
Total	19	30	-

The results presented above provided some answers to our initial research question, namely: “What explains unemployed Tunisian PhDs’ attachment to a career in academia?” Despite the very limited number of available positions, these PhD holders continue to aspire to academic careers. Our findings indicate that the participants are confident in their teaching abilities, which aligns with the observations of Seo et al. (2021): individuals tend to choose professions for which they perceive themselves as possessing the necessary skills, while avoiding those in which they feel they lack the required competencies.

Our findings regarding the motivations triggered by socialisation influences did not clearly demonstrate a direct and decisive effect on career choice. In fact, many respondents reported that the desire to succeed and excel in their studies was the most decisive factor influencing their decision to pursue a PhD. Similar results were reported by Li & Jiang (2025) and Bargmann et al. (2022), which showed that prior academic success significantly increases the inclination toward a career as a faculty member.

Moreover, the content analysis regarding the influence of the socialisation revealed that elements related to family and prior experiences (as contract academic staff member) influence the choice of this career in two ways, exerting both encouraging and discouraging effects. These findings are compatible with those of Richardson and Watt (2006), who state that social environment plays a

predominant role in the choice of a career in academia. Therefore, individuals' experiences during their school years, as well as any prior engagement as contract academic staff, play a decisive role in shaping the extent to which teaching is perceived as a suitable career choice.

The unemployed PhD holders pay particular attention to extrinsic motivations. Specifically, aspects such as professional stability and security, the contribution to society, free time and vacations, and social recognition are the most frequently mentioned. It may also reflect a strong passion for the field and the discipline or specialisation. This is reflected in factors such as proficiency in the art of teaching, the appeal and prestige of the profession, overall job satisfaction, and the willingness to make personal sacrifices in pursuit of the career. The importance placed on the security and professional stability of the academic staff role finds its theoretical basis in the work of Thomas Dotta et al. (2025).

The respondents place considerable importance on their perceived contribution to society. This observation is noteworthy, as Atta-Owusu and Fitjar (2022) assert that contributing to society is an influential determinant of job satisfaction. We also observe a desire to assist those in need, as reflected in our case by the students (Watt et al., 2012). The needs of others form the basis of a morality of sociability, conceptualised as altruism by Auguste Comte. This moral doctrine suggests a form of self-denial, excluding any self-interest. The help we can offer to one of our parents within the context of our family ties, for example, cannot be considered an altruistic act, because "when we help a person with whom we personally identify, it is ourselves that we help by extension" (Blum, 1996, p. 478).

Regarding free time and vacations, the work of Kyriacou and Coulthard (2000) demonstrated that extrinsic motivations pertain to the attainment of rewards in various forms. Among these, free time and generous vacation allowances are prominent factors that justify the choice of an academic career. The element of "social recognition" highlighted by our respondents also has its theoretical foundation in the work of Zhu et al. (2023), where recognition carries prestige within academic research professions. Introducing socio-demographic criteria at this point, our analysis revealed that female respondents attach more importance to the element of "expertise in the profession" than male respondents. This finding confirms the views of D'Ascoli & Berger (2012), who maintain that teaching requires expert status. A plausible interpretation of this gap supports the feminisation of the profession.

The aspects related to mastery of the art of teaching, the appeal and prestige of the profession, job satisfaction, and the willingness to make personal sacrifices for the career were strongly emphasised by our interviewees. This can be explained by the research of Onyefulu et al. (2023), who discussed motivations based on personal utility. This form of motivation encompasses both the desire to pursue a research career—a passion for inquiry—and the expectation of adequate rewards; it fundamentally reflects an intrinsic interest in the activity, as well as the pleasure and satisfaction derived from sharing knowledge. In this regard, Hnatkova et al. (2022) argue that a strong passion for research motivates scientists and researchers to invest personal resources in their work. Furthermore, engagement in academic research can be explained by the fact that PhD holders possess a pronounced interest in and genuine passion for science (Chen and Zhao, 2024).

We now turn our discussion to the element of "salary," which was not unanimously considered by the respondents as the most important factor motivating the choice of a career as a university instructor. This result corroborates the findings of Blackmore and Kandiko (2011), regarding the very low salary profitability of investing in a doctoral thesis.

Regarding our final dimension of study, namely “the dimension of the default career choice (with the private sector as an example),” our results indicate that more than 70 percent of respondents express an absolute reluctance to choose the private sector as a default career. Our analyses provide explanatory elements along the lines of socio-demographic criteria, regional factors and structural and personal criteria. Starting with the socio-demographic criteria, we found that female respondents consider private sector work or self-employment too risky, while male respondents appear more predisposed to pursue a career in the private sector. Some female respondents mentioned the issue of gender discrimination. Some female interviewees stressed the difficulty of relocating outside their regions to seek employment because of family commitments or sociocultural reasons. In contrast, male respondents experience fewer difficulties in finding employment in the private sector and are more willing to travel across the country. Furthermore, regarding the regional aspect, our results show that respondents from inland regions (such as Sidi Bouzid or Kasserine) view private or independent work as extremely difficult, if not impossible, due to the lack of a robust industrial clusters in these areas. In contrast, respondents from coastal or industrial regions (such as Sfax or the capital Tunis) believe that private sector work or self-employment is a viable and highly probable option if accessing a career as a university instructor proves impossible.

At both the structural and personal levels, we identified a range of factors related to the current economic situation, competition with engineers and technicians, the absence of a practical component in doctoral programs, and the risks of business failure or unemployment. All these elements profoundly influence the career choices of the respondents (whether in the private sector or higher education). Here the competition between PhD holders and engineers (or technicians) also plays an important role. Here, PhD holders are at a disadvantage because companies often emphasise the need for practical skills, which are typically lacking in a PhD thesis. These observations corroborate the findings of Suomi et al. (2020), who indicate that doctoral graduates experience more difficulty accessing employment than graduates from engineering schools.

Furthermore, we should emphasise the specific characteristics of the Tunisian context which reinforces this reluctance toward self-employment. Here, we encounter socio-economic arguments (the major differences between the less-favoured inland regions and the more-favoured coastal areas) as well as sociocultural considerations (in some inland regions, it is unacceptable for a woman, especially one with childcare responsibilities, to travel outside her region in search of employment).

In summary, we can conclude that several factors can explain the attachment of unemployed Tunisian PhDs to the carrier of university lecturer: namely, self-perception, the influence of socialisation, career values and perceptions, socio-cognitive factors, and the default career choice.

It should also be noted that the respondents mentioned certain measures implemented by the Ministry of Higher Education, particularly the MOBIDOC scheme (a doctoral mobility program). According to those surveyed, these measures appear inappropriate, even ineffective, thereby reinforcing their attachment to the university instructor career in the absence of any other credible alternative offered by the Tunisian government.

Solutions and future perspectives

The MOBIDOC scheme

Most previous studies have been limited to a better understanding of unemployment in general (rather than the unemployment of PhD holders), without providing concrete recommendations in terms of training and the recruitment of graduates. Therefore, we will now discuss the MOBIDOC scheme that was criticised by many respondents. However, if properly designed and implemented, this scheme could prove to be an effective tool to improve the employability of young PhD holders.

The MOBIDOC scheme is a partnership project between the Tunisian Ministry of Higher Education and Scientific Research and the European Commission, with the latter's financial contribution estimated at 2 million Euros. MOBIDOC is a mobility mechanism for PhD holders from academic institutions towards the private sector. It aims to promote partner-driven research guided by the needs of the societal and productive environment and make innovation research available to Tunisian companies seeking competitiveness and the reinforcement of their strategic capacities. It thus intends to enhance the participation of small and medium enterprises in the H2020 research and innovation programme through dedicated calls for proposals. Of interest for the current chapter is MOBIDOC's aim to stimulate the employability of young researchers through the acquisition of dual scientific and professional expertise, opening broader career horizons. However, the employability of PhD holders is just one of several aims of a programme that aims to create value.

According to our respondents, this scheme has several shortcomings. To address these insufficiencies, we propose the following managerial recommendations, which we believe could improve the MOBIDOC scheme and make it a lever for the employability of unemployed young PhD graduates in Tunisia. First, the necessary financial resources need to be allocated so that the MOBIDOC scheme reaches as many unemployed PhDs as possible. Then, there is a need to rectify the selection procedures for doctor-researchers and the access to this scheme, while giving priority to unemployed PhDs to help them have a chance to integrate into the private sector. Furthermore, a clear and coherent legal framework needs to be established, that preserves the rights of unemployed PhDs during their service within a company. At this stage, contractualisation becomes a necessity. Furthermore, companies should be encouraged, through legal and financial mechanisms, to recruit a considerable and reasonable quota of unemployed PhDs.

The scheme should also include several explicit personal development measures. It should help doctoral and post-doctoral students acquire professional expertise, as well as a corporate and entrepreneurial culture, thereby opening broader career horizons. The idea of providing training and seminars alongside the projects appears interesting, with host organisations participating in drafting the content of these trainings. Furthermore, doctoral and post-doctoral students should be assisted in integrating into professional life, either through the creation of their own spin-offs or through employment within the host company.

However, the needs of companies should not be ignored. Partner-driven research guided by the needs of companies should be encouraged, to mobilise the means and expertise of academia in the service of economic and social development. To this end, it is essential to allocate the necessary financial

and human resources, based on a thorough study to accurately determine these requirements. An effective management system should be introduced, inspired by successful experiences, including those of similar foreign structures, through “exchange of experiences.” The execution of research and highly technical expertise projects should be supported to improve competitiveness and reinforce the capacities for innovation and production within host structures. This requires establishing a cooperation framework with the relevant national and international organisations.

Furthermore, dedicated listening and monitoring units should be established during project implementation, with the capacity to intervene and resolve any issues that may arise. Additionally, a database and information system should be implemented to provide a comprehensive overview of all ongoing and completed projects involving PhD researchers and beneficiary companies, thereby facilitating better management of the program and enabling systematic feedback on all accomplished activities. Finally, the structure of the National Agency for the Promotion of Scientific Research (ANPR), tasked with managing the MOBIDOC project, should be modified to adopt more flexible private-sector management measures that better coordinate its actions with the private beneficiary organisations.

The Professional Doctorate: A Strategic Opportunity for Tunisia

The doctorate represents a form of professional excellence in many countries, yet it lacks similar recognition in Tunisia. The establishment of doctoral schools, the provision of training more closely aligned with labour market needs, and the development of the professional doctorate are all potential avenues to address this issue. It is necessary to reconsider the desired evolution of doctoral education in Tunisia so that, while respecting the prerogatives of higher education institutions and following models already established in many countries, the degree can confer upon its holders the prestige it deserves—along with the corresponding benefits for employment opportunities.

Doctoral studies in Tunisia are governed by Decree No. 2013-47 of January 4, 2013. Under the LMD (Licence-Master-Doctorate) system, the national doctorate degree certifies a training and research cycle that lasts at least three years after the master’s degree. This regulatory framework is very restrictive regarding the authorisation to grant a doctorate. Compared to master’s or bachelor’s degrees, which are considerably more marketable, the Doctorate offers lower employability. The need for a more clearly defined professional pathway for a subset of doctorate holders does not undermine the role of fundamental research or the legitimacy of doctoral schools. A measure such as the registration of doctorates in the National Directory of Professional Certifications (RNCP) under Decree No. 2009-2139 of July 8, 2009, which establishes the national qualification framework, would contribute to the recognition and professional integration of PhD holders outside the public sector and public research. This evolution would logically extend to the creation of a true professional doctorate.

Research-intervention is an approach for both studying organisational change processes and understanding how managerial methods adapt. This field methodology places the researcher at the heart of the ongoing transformations within a company, allowing them to be an active participant in managing various action variables. Research-intervention makes it possible to conduct “useful” theses and to diversify the sources of scientific research funding in Tunisia by involving socio-economic actors more

deeply in the definition, conduct, and evaluation of doctoral theses which are conducted in research laboratories. It represents a co-management of research—a win-win system (with the production of reports, tools, models, etc.)—translated into proposals to be experimented within the company.

Both academics (professors, researchers, and laboratory heads) and business managers, as well as institutional actors (governmental and non-governmental organisations), need a closer connection between university and industry. This connection can be achieved through research-intervention. Therefore, a structured legal framework is necessary to support this rapprochement, along with the establishment of specific mechanisms to encourage companies to call on researchers to address the problems they encounter. Moreover, a relaxation of the operational rules within research laboratories and university doctoral schools is also essential to allow these partnerships to be conducted within rapid and efficient timelines and procedures. Hence, the idea of creating a professional doctorate emerges as an opportunity to address the phenomenon of unemployed PhD holders in Tunisia.

Conclusion

In this chapter we discussed the motivations behind PhD holders choosing to pursue a career as a university instructor. The initial issue refers to the attachment of PhD holders to finalise their theses and join the ranks of university instructors despite all the challenges associated with this profession and the various barriers to entering this career path. To comprehend the underlying reasons for this behaviour, which at first glance seems irrational, paradoxical and emblematic, we employed the "FIT-Choice" theoretical framework to explain the choices individuals make and their preference for certain fields (Richardson & Watt, 2006).

Our results suggest that PhD holders cling to this type of professional career—even though other solutions, such as self-employment, are possible—for the following reasons: confidence in their teaching abilities; their outstanding academic success; the influence of the academic staff, family and friends; the pursuit of stability and social security; the charm and attractiveness of the profession; free time and vacations; their contribution to society through the transmission of knowledge; social status; and scientific production through research, supervision, and publication.

Our qualitative analysis also indicates that self-employment appears to be a judicious solution if the young doctorate holder experiences a sense of self-efficacy. We can then recommend institutional intervention procedures. For instance, an unemployed PhD holder with adequate domain-related skills but low self-efficacy beliefs may benefit from relatively brief interventions focused on enhancing self-efficacy. In contrast, candidates displaying both low self-efficacy and insufficient teaching skills may require more intensive support measures targeting the development of both self-efficacy and professional competencies (such as business creation procedures, financing, etc.).

The Tunisian government has set up a scheme called MOBIDOC to enhance the contribution of research and innovation to economic development and job creation. The idea of creating a professional doctorate appears also as an opportunity to address the phenomenon of unemployed PhD holders in Tunisia.

Despite the significance of our findings, our research is not without limitations. First, the survey asked respondents to report on their motivations and perceptions. As a result, the answers might be biased by a social desirability effect, particularly when responding to questions related to personal motivations. This issue persists despite the anonymity guaranteed in our study. Another limitation is that the unemployed PhDs interviewed have, during their years of unemployment, had brief, time-limited teaching experiences as fixed-term lecturer or contract academic staff member. We believe that these relatively short periods of practice may have influenced PhD holders' perceptions of their motivation to teach.

Finally, we suggest that a systematic comparison of the various populations of graduates aspiring to teaching positions—such as in secondary and primary education, as well as vocational training—could constitute a promising avenue for future research. Although some studies have attempted such comparisons, the vast majority have been limited to examining motivations for teaching within a specific context and based on a single sample of graduates.

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