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# **Original Research Article**

# A Critical Perspective to Higher Education in the 21st Century Tunisia: The Problems of the Present and the Challenges of the Future

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The impact of the gap between education and economy on the dynamic progress of society is frequently searched. In Tunisia, the increase of unemployment among graduates is a logical reason to question the match between our education and economy. To study this question, a theoretical connection between theory of social change, theory of economic change, theory of educational innovation, and theory of matching is established. The concepts and ideas that form these theories are analyzed and discussed in the conceptual analysis section. Then, they wereapplied for the analysis of the changes occurring in the three contexts in the section devoted to data analysis and discussion using a pure qualitative method. First, the changes occurring in the social, economic, and educational contexts are analyzed. Second, the findings of the analysis are discussed. The results of the study showed that society, economy, and education witnessed many changes. The examination of the match between these changes proved that higher education reforms did not succeed to fit with the needs of both society and economy. This mismatch is the outcome of a gap between the theorizing for reform and the practice of it, a problem of orientedness, a limited ability to build creativity, a limited ability to predict, a problem of logic in specialty creation, and a temporal disconnection between past, present, and future. Finally, the paper recommends that the success of educational reforms to fit with social and economic changes entails the reduction of the gap between theory of reform and its practice, making reform context-dependent, and making reform creativity-oriented. Therefore, though valuable these recommendations are, a quantitative study of the topic could be another important axe to investigate in a future research.

**Keywords:** Tunisia, Higher education, Society, Economy, Mismatch.

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#### INTRODUCTION

Society, economy, and education are three interrelated concepts. They are interrelated in the sense that each of them is crucial for the well-functioning of the others. First, society needs a good education in order to progress and to be able to guarantee a stable atmosphere for its people. It also needs a balanced and a prosperous economy to have its people integrated in the economic cycle. Second, building a strong economy entails having such a stable and peaceful social atmosphere that is required to encourage people to invest and to create businesses. This requires establishing a good educational system that

takes into consideration the changes occurring at the level of both contexts: the social and the economic. Third, in order to establish an educational system that can meet the challenges of the society and offer the needs of the job market, there should be a favorable social atmosphere which is ready to sacrifice and to invest in education. Also, it requires having a prosperous economy that can offer the capital needed for developing school curriculums and holding the newly graduated students. In brief, these three concepts are strongly connected and they complete each other for a better life.

In contrast, any poor link among them will immediately lead to many drawbacks on people's lives. These drawbacks include unemployment (Ndyaly, 2016), labor shortage (Miner, 2010; Nikolov et al., 2018), low wages (Korpi and Tahlin, 2007), slow rate of social progress (Boateng, 2002), low level of skills (Azhar and Zandi, 2018), etc. They will affect people's well-being, their progress, their comfort, their stability, their peace, etc. Also, they reflect that their ability to complete each other for a better atmosphere of living depends on their degree of match. However, education represents the most influential concept of this conceptual triangulation. It is the most influential in that it is important to prepare new people to integrate and to live in a stable and peaceful atmosphere by considering the changes occurring at the level of both society and economy. Otherwise, if the educational system failed to consider these changes, there would be a great problem facing the newly graduated students to get integrated into their societies and its economic system. Hence, the failure of that society to achieve progress and to guarantee a competitive power to integrate into the world economy will be the main outcome.

This failure is a result of the inadequacy of the university programmes to meet the challenges of social evolution and to offer the demands of the market that is affected by it. The evolution of society across time leads immediately to the occurrence of different changes in its economy such as the change of the structure of the job market and the types of the skills it needs. To make the job market able to meet the ongoing social changes and to make society provides the needs of the market in terms of skills, it has become of crucial significance to add a third element. It is education and it plays the role of the regulator to build a society in which the economic system can include its graduates and to guarantee them stability, progress, and competitivity. For education to be able to ensure economic equilibrium and social stability, it should be up-to-date. Here, being up-to-date should be understood in the sense that what we teach should match with the evolution of our society and the needs of our economy. If it is not the case, education will not be able to serve neither society nor economy.

To make education able to serve both society and economy, researchers resorted to innovation as a tool to make schools more creative. It is a way to look for new

strategies of teaching and learning starting from the evaluation of the existing context and the prediction of the possible challenges of the future (Litch et al., 2017). The efforts to innovate covered all areas of the schooling process. For instance, the traditional methods of teaching were explored, evaluated, and innovated to build new methods that are adequate to facilitate both learning and teaching (Nicolaides, 2012). The pedagogy of teaching was also central for the researches who are interested in innovating the educational terms, theories, and practices to provoke shifts in the field (Zuljan and Vogrinc, 2010; Ferguson et al., 2017). In addition, the classroom, which is the place where both pedagogy and methods of teaching are practiced, was concerned by innovation too (Russell and Schneiderheinze, 2005; Goatley and Johnston, 2013). Here, innovation is meant to give more freedom to students in the class to think, to communicate, and to create while the teacher becomes a mere mediator who motivates them to learn. Hence, the negative effects of the mismatch between society, economy, and education find its solution in the renewal of the schooling techniques. They need to be renewed in the way that fits with the characteristics of such given social and economic contexts.

In Tunisia, we faced such difficult social and economic moments since the last few decades. These are characterized by the increase of unemployment, the rise of the rate of poverty, the increase of the inflation rate, the devaluation of the dinar, etc. In other words, though Tunisia investigated in education since many years before, its citizens face today a difficult period of social and economic hardship. This paradoxical reality raises two critical questions. First, we should ask whether our education is among the main causes of the social and economic failure we live in. Second, we need to question the degree of the efficacy of our educational system to fit with the changes occurring at the social and economic levels. These two questions represent an initiative to the critical study of the present problems affecting our educational system and the future challenges it might face. Also, they are formulated after a long observation and evaluation of what our schools and universities offer and what our economy and our society need. The possible mismatch that was noticed since few years before has led to the undertaking of this study when the appropriate academic context is found. Finally, while carrying on this critical study, three major research questions will be answered. These are formulated as follows:

- 1. What are the current problems affecting education in Tunisia?
- 2. What are the challenges that might affect the quality of our education?
- 3. Which types of solutions do we need to build an adequate educational system?

These three questions will be dealt with using a multidisciplinary approach that ranges from society through economy to education. This conceptual triangulation is formed to understand the relation between how society changes, how economy changes, and how to adapt what we teach with the changes that we are living. First, to understand how society changes from one context to another, there is a need to use theories of social change. Second, to grasp the way economy evolves with social changes, theories of economic changes must be considered. Third, to find a way for the improvement of our education, theories of innovation are necessary. Fourth, to offer a detailed comprehension of the match between them, theories of matching are required. Finally, these theories are described, discussed, and used together in this multidisciplinary approach to reach such convincing results.

## **CONCEPTUAL ANALYSIS**

Before moving to the study of the case of mismatch between society, economy, and education in the 21st century Tunisia, it is important to focus on the analysis of some theoretical concepts. These concepts are related to theories of social change, theories of economic change, theories of innovation, and theories of matching. They represent the cornerstones of the approach to be used for the investigation of the three problematics raised earlier.

## Theory of Social change

The task at this point is to offer a good comprehension of the phenomenon of social change. It starts from the writing of a workable definition of the concept. By workable in this sense means it is adequate to help determine the scope of the social changes occurring in Tunisia. Then, the focus shifts to the recapitulation of the set of ideas forming the theory of social change. These are required to explain the changes taking place in our social context. This explanation aims to shed light on the features of these changes to find the adequate strategies needed to meet the challenges of the new context. Being aware about these challenges will give the ability to regulate education to serve the goodness of the society. But, before that a theory of social change is required to explain the existing problems to show if the education fits with the social context and can solve its problems or not. So, determining the meaning of social change and preparing a theoretical frame for its explanation becomes crucial to outline the problems and to predict the challenges.

The notion of change refers to the fact of moving from one state or form to another (Oxford, 2006). This movement entails the variation of such variables. To determine the degree of this variation and its impact on its surroundings, it is necessary to study the difference between the first (old) state and the second (new) state. Based on this understanding of the concept of change, social change can be referred

to as the variation of such social variables. These variables include examples like demography, culture, life style, ideologies, technology, science, education, economy, politics, etc. Any change happening at the level of these variables will affect social structure, people's lives, social progress, relations between people, etc. To understand the changes that are taking place in a given society we need to examine the social context at the level of two different moments from the history of that society. The determination of these changes is required to capitalize the existing problems and to predict the coming challenges. For instance, the study of the impact of social change on the degree of match between society and education in Tunisia entails determining the social variables that witnessed such changes. However, to analyze the detected changes and to interpret the obtained findings a theory of social change is needed.

A workable theory of social change should start from the ideas that society is not static. This means that it is open for changes. These changes can take place at any time, when any of the social variables show a kind of variation. They are the result of the actions and interactions of social actors (Morariu and Ignat, 2011). However, in terms of planification, it can be planned or at random. Macionis (1996) argued that social change is sometimes intentional but often unplanned. In both cases, it can produce significant modifications in people's environment (Trommsdorff, 2000). For instance, it influences the development of behavioral patterns. In other words, change might lead to the disruption of the equilibrium of the social environment. Also, it might lead to the creation of such conflicts. The conflicts occurring at the local level of any society could be influenced by other contexts that are outside the boundaries of that society. These facts of creating conflicts and disrupting equilibrium work in parallel with an opposite mechanism manifested in the search for a new equilibrium. This search is associated with a variation in the patterns of social actions (Moore, 1967). Moreover, social change is not only the result of innovation, but also a producer of it. Hence, a useful theory of social change should take into account the causes, the mechanisms, and the results of the changes occurring in the social context under focus.

Haferkamp and Smelser (1992) offered a theory that puts these three instruments together. They referred to as: structural determinants, processes and mechanisms, and directions or consequences (pp. 2–3). This theory offers a detailed understanding of the phenomenon of social change in that it enables its users to determine the existing problems, predict future challenges, and shed light on the mechanisms of change. The capitalization of the involved mechanisms is crucial in the re-finding of match between the needs of our society, the services of our education, and the capacity of our economy. However, these three instruments should work within a multi-dimensional framework for the study of social

change. It is multi-dimensional in that social change is such a complex phenomenon the understanding of which entails covering all dimensions of change. Briefly, a multi-dimensional study of social change in Tunisia will be carried to show what sort of pedagogy and methods necessary to teach the skills required for the progress of our society and economy.

## Theories of economic change

What is needed in this section is to offer a holistic understanding of economic change. This task consists in the formulation of a brief definition of the concept. It seeks also to recapitulate the main ideas constituting a workable theory for the study of economic change in Tunisia. The writing of the definition is a step towards the determination of the scope of the occurring changes. It is a step to set clear the examples of change taking place in the economic system. However, the discussion of the theoretical basis to be used for the study of these examples is a step towards the analysis and explanation of what is going on in the economy. It is a step to shed light on the existing problems, to explain them, and to throw a glance on the possible challenges of the future. Briefly, this section aims to offer the theoretical conceptions required for the detection and the critique of the economic changes in Tunisia.

The notion of change in economics refers to the shift taking place at the level of the structure of a given economy. By structure it refers to the change of the balance between output, incomes, trade, and employment in a given sector of the economy. It is clear that economy is affected by many factors which can drive the change of its structure from one time to another. These factors include examples like social change, political change, technology, economic policies, regulations, supply, demands, etc. Any variation occurring at the level of these factors will lead to the emergence of such a new economic situation. To make the economy serve the well-being of our society, all need to be aware about these factors of change. Their critique will give the ability to innovate and to keep guarding the economic equilibrium. This equilibrium will be stronger and more resisting when Tunisians succeed to manage a strong matches between the changes occurring in the economy, society, and education. So, the analysis and the critique of the factors leading to such a change entail having the required theoretical basis needed to comprehend the new context and to offer better conditions.

A theory of economic change should start from the idea that economy is evolutionary in nature. It is evolutionary in the sense that it evolves across time. Its evolution entails the interpretation of the real economic change to lead an adaptive response. Here, adaption should be understood in the sense that the direction of the response should be the same as the direction of the change and that this adaptation process should lead to the constellation of a new equilibrium

(Nelson and Winter, 1982). Also, a theory of economic change should be generic too. It is generic in the sense that it can offer a critical understanding of the rules of the economic system. This critique focuses on the study of how the elements of this system are coordinated, the determination of the causes leading to this change, and the capitalization of its consequences (Dopfer and Potts, 2008, 2009). Moreover, a theory of economic change should be transformative. Here, transformation should be understood in the sense of moving from the traditional towards the modern. This shift in the structure of the economy entails change in values, norms, customs, educational requirements, etc. (Breisinger and Diao, 2008). It is also characterized by the attempt to bring a radical, systematic and controlled change, the emergence of new elites to control the market, the domination of new orientations, the emergence of new institutions, and the formation of new core units (Kollmorgen, 2010). Thus, the study of economic change in Tunisia entails working within a multi-dimensional frame. This frame is required to capitalize the problems of the field and to shed light on its challenge to adapt our education to the needs of our economy.

The application of this multi-disciplinary theory for the critical study of the economic changes in Tunisia will follow such successive steps. First, examples of change will be traced. Second, the causes and the consequences of these changes will be cited, analyzed, and interpreted. Third, the results of the examination of these changes will be discussed to set clear the needs of the economy. By highlighting these needs, leads half way from bringing the adequate solutions. The finding of these solutions culminates in the resort to creation and innovation to make a more competitive economy. In brief, innovation becomes more effective by creating a strong match between education and economy. In other words, it is by innovating these programmes and teaching strategies that Tunisians can make education offer the needs of the job market.

## Theory of educational innovation

In this section, is concerned with the determination of the meaning of innovation in the field of education. Setting clear the meaning of the concept, would in turn seek to determine the scope of creativity and innovation at the level of both theory and practice. Then, the focus will shift to the formulation of a workable theory of educational innovation. It is a theory that is required to set clear the problems of education, to capitalize its challenges, and to find the appropriate ways of creating and innovating. Therefore, this theory is needed to create such a deep change in the field of education. It is a change that is required to make education match with the changes occurring at the level of both society and economy.

By innovating in this case mean creating novelty. The creation of novelty can take place through the amelioration of

already existing things or the bringing of something new like ideas, methods, devices, etc. However, innovation in education has its specific features that distinguish it from other sorts of innovation. It is related to the bringing of new methods of teaching and learning or the amelioration of old ones. Also, it is connected with the creation of new syllabuses that are more creative and that can push students to learn and to come with new projects. More-over, a teacher might resort to innovation in his classes to motivate his students and to make them learn easily. Here, innovation should be linked to such variables in order to be fruitful and serve the planned goals as well as to move away from the fact of being non-useful or fruitless. These variables include examples like social change, economic change, political change, etc. The determination of these variables will help to find an answer to the question: 'when to innovate?' Once the appropriate time in which to innovate clearly set, the concerned to answer a second question will arise: 'how to innovate?' The answer to this question finds itself in the recapitulations of the main ideas forming the basis of a workable theory of innovation in education.

A theory of educational innovation should be contextdependent (Pandolfini, 2013). Context-dependent here refers to innovating depending on the needs of the social and economic contexts (Mykhailyshyn et al., 2018). Having this in mind, it should take into account three different but complementary dimensions. First, it is important to determine the problems facing our educational system. Innovation is a way to overcome the existing difficulties and the determination of these difficulties will help innovate in the right way. Second, it is needed to identify the required mechanisms in the light of the needs of the society and the economy. The selection of the adequate tools will help creating the kind of novelty needed. Third, it is crucial to set clear the goals to be achieved (Russell and Schneiderheinze, 2005). The pointing of these goals will help to determine how to innovate and what to innovate. Moreover, a theory of educational innovation should be open to personal efforts. Its openness to these efforts is required to give the teachers the chance to innovate according to the needs of their classes. Also, a theory of educational innovation should give priority to creativity in thinking rather than in knowledge. Each day students face new problems that they haven't faced before. The resolution of these problems entails having a good reasoning rather than a huge amount of knowledge (Carson, 2007). So, the theory of innovation needed in the case of this study should be multi-dimensional in nature to help reach the required solutions.

This theory will be applied within a multi-disciplinary frame to the study of the problems and challenges facing education in Tunisia. First, the determination of the difficulties of this field culminates in the finding of the mismatch between the demands of our society, the demands of our economy, and the supplies of our education. Second, once

mismatch is found, the mechanisms to be used to create innovation in our education will be discussed based on the needs of both contexts: the social and the economic. Third, the objectives of the innovation sought to be created will be set clear to make the used mechanisms serve the well-being of the society and the development of the market. However, for this theory to serve the planned goals, it needs the addition of a theory of matching that is adequate to determine where mismatch manifests itself. This theory will be the focus in the following section.

## Theory of matching

In this section, the focus will be devoted to the writing of a workable definition of the notion of matching. This definition will be used for the determination, understanding, and discussion of the issue of mismatch between the concepts of society, economy, and education in the Tunisian context. Once the elaboration of a comprehensive definition of the term is finished, the focus then moves to the recapitulation of the main ideas and concepts forming the theory of matching, which is adequate to explain the poor match between these concepts. The explanation of the causes and consequences of the detected poor match represents the starting point towards the beginning of the innovation process. Therefore, to initiate such a fruitful process of innovation, a detailed understanding of matching and its opposite concept is required, mismatching as wells as a theoretical paradigm for its explanation.

Being the opposite of mismatching, matching refers to the state of corresponding between two or more things. This correspondence between things might happen at various levels such as pattern, form, color, etc. By being correspondent, these things reflect complementarity among them. The definition of the established complementarity varies from one study to another, which means that the principles governing the strong/poor match between such things are not static. However, they are variable, and they should be defined with the start of any trial to the study of the issue of matching between two or more precise things. In the case of this study, for instance, matching should be defined in terms of whether the education system in Tunisia is able to meet the needs of both society and economy. In other words, if the educational system is adequate to supply the needs of the job market and to offer the social demands for change and progress there will be a strong match between the concepts of society, economy, and education. If it is not the case, there will be an opposite result, which is that of poor match. In this paper, the second case is under focus. It is under question due to the long period of observation in which the existence of many examples of mismatch between these concepts was noticed. Once this mismatch is proved, a need to have such a workable theory that is adequate for its explanation will be required.

A theory of matching is binary in nature. It is binary in

the sense that it takes into account two sets of matching things (Gale and Shapley, 1962). With this understanding of the bases of this theory, the match between the concepts of society, economy, and education should be understood in terms of the match between the pairs formed by them. However, since education is considered as the regulator, the pairs 'society/education' and 'economy/education' will form the core of the study of the matching of these three concepts. The match between these pairs should be dealt with in the sense that what education offers could meet the needs of both society and economy. For instance, the match between education and economy is explained in terms of the match between education curricula and the labor market demands (Corominas et al., 2010). It is a match between the skills that education supplies and the skills that are required for the satisfaction of the job market. The match between education and society should be explained in terms of the ability of education to fit with the requirements of social development (Takala, 2010). This development occurs at various levels such as technology, science, culture, industry, etc. However, when the educational system fails to match with social and/or economic changes, it would be a case of mismatch. This case represents our focus in this paper. It is under focus to discuss the impact of the lack of match between what education supplies and the demands of both society and economy in Tunisia so that the right ways to innovate in our education could be found.

The study of the issue of mismatch between society. economy, and education in Tunisia will be carried within the scope of a multi-dimensional frame. This frame is required in that the mismatch among these concepts manifests itself at various levels. These manifestations will be traced and classified at the level of the analysis section. This will be done through analyzing the changes occurring at the level of the three fields, comparing the results of the changes, and determining where mismatch manifests itself. Then, the results of the analysis will be interpreted to shed light on the main causes of the detected poor matches and to think about the solutions to be brought to create a new state of equilibrium. The creation of this equilibrium is concerned mainly with how to make the education regulate the match between the three concepts. It is about how to make education serve the well-being of the society and economy. This interest in the manner of re-creating match between these three fields is the focus in the following section.

#### **METHODOLOGY**

The paper uses a pure qualitative method of data collection and analysis that is based mainly on observation. This qualitative method works within a multi-disciplinary framework that is built on a combination of various theories ranging from theories of social change, through theories of economic change and theories of educational innovation to theories of matching. The application of these theories – as it is discussed in the section devoted for conceptual analysis – seeks mainly to determine the features of social changes, economic changes, and education reforms. Having visualized the changes occurring at the level of these three contexts, focus will shift to the discussion of the extent to which education reforms match the needs of both society and economy. By discussing the degree of match between the three concepts of society, economy, and education, highlighting the problems that are still facing the Tunisian higher education and to find the best ways to meet the future challenges will be the focus. Then, a list of some possible solutions will be given on the light of the existing problems and challenges.

#### ANALYSIS AND DISCUSSION

In this section, the theoretical conceptions discussed before will be applied to study the issue of mismatch between society, economy, and education in the Tunisian context. Following the above depicted methodology, it will focus on the analysis and discussion of the collected data. First, the changes taking place at the level of the social, economic, and educational contexts will be critically examined. Second, the results of this critical examination will be interpreted to work out the main findings of the study. Finally, the conclusions will be written down to shed light on the main contributions of the study and to pave the way for coming researches through giving a hint to the existing limitations.

#### **Analysis**

This section seeks to shed light on the features of the main changes occurring in Tunisia at the level of the social, economic, and educational contexts. The data to be analyzed are collected through the critical examination of these contexts. By examining these contexts, the obtained data are categorized and analyzed. The results of the analysis of these data are summarized to facilitate their discussion in the coming section.

# Changes in the Tunisian society

The Tunisian society has witnessed such deep changes. These changes are multi-dimensional in that they covered various dimensions of the social context. At the demographic level, for instance, Tunisia's population number grows from about 4 million persons in 1956, through 9.56 millions in 2000, to an estimated number of around 11.5 millions in 2019 (WPR, 2019). This increase in the number of the population has led to many negative impacts on the state's economy like the increase of unemployment rate among young people. In addition to this growth in number, Tunisia's population marked the migration of a big number of people from the rural areas to the urban ones. Also, international migration represents another form of change in the Tunisian

society via which many people left the state to live in other states, especially the European ones like Italy (Zuccotti et al., 2018). This migration was the result of the impact of some factors like the economic and the political ones (Mohamed et al., 2017). The lifestyle of the Tunisians has also showed a remarkable shift. The Tunisians have become more demanding than ever before and the standards of living become too elevated. This increase in the costs of people's needs for living, in an era that is characterized by the increase of unemployment, has led to the emergence of social movements like migration. Briefly, these changes are part of the whole phenomenon. The examination of other examples will shed more light on the changes occurring in our society.

Tunisia witnessed many cultural changes too. These changes manifest themselves at various levels such as art, music, norms, values, identity, thoughts, etc. They are affected by factors like Tunisia's geographical location. Its nearby location from Europe and its colonization by France has led to a cultural revolution characterized mainly by liberalism, westernization, bi-culturalism, bi-lingualism, etc. These values were brought and installed by the founder of the first republic, Bourguiba. After the rise of the Islamist ideology in 2011, the existence of a political attempt to control the cultural sector was noticeed (Helly, 2014). However, with the increasing use of modern technology, it has become a little bit difficult to control the cultural scene. It is difficult to control in that the country became open to the influence of multiple ideologies that can affect people's ways of living and thinking. This social fact explains the existence of people with diverse ideological orientations such as Islamists, Communists, Leftists, Marxists, etc. So, Tunisia moved from the state of biculturalism to that of multiculturalism. This change makes Tunisians' identity more fluid and less static. The openness of the Tunisian identity to change is monitored by the conflicting political ideologies to preserve a given national profile and to reject another one. Therefore, the Tunisian society has become open to cultural, ideological, and political diversity than ever before.

By moving from the rule of tyranny to that of democracy, the Tunisians are living in a new era of their history. This era is characterized by more freedom and liberty. It requires a new philosophy of thinking and acting. This philosophy is both social and political. It is based on the teachings that people should learn to respect the difference of opinions, values, traditions, etc., to assume responsibilities, and to defend rights. Having freedom as one of its major characteristics, this era entails rethinking about the relation between the state and its citizens. This change in the nature of this relation is followed by such significant changes at the level of the set of laws monitoring it. This legislative change manifested itself mainly in the writing of a new constitution. After setting the rules of the new born democracy, Tunisia declared the start of the process of re-constructing and re-

building. This process covered all levels of the social context like media, administration, economy, education, politics, etc. To guarantee the success of this process, it is required to put into action the endeavors of all social powers such as parties, organizations, thinkers, etc. Hence, we moved from the domination of one perspective to the cooperation of many perspectives. This multiplicity of perspectives manifests itself at the level of the media leading to a great change in the means of broad-casting and that of critique.

The media witnessed significant shifts in terms of both content and form. There emerged new means of expression - like new radio stations, TV stations, journals, websites, etc. - that range from different orientations. The topics discussed here and there are boundary-free. The right to express and to criticize is given to all people and away from being harassed by the power of the state like in the era before 2011. Social media like facebook and tweeter became of crucial power too. These open access means of expression showed in many occasions that they have the power to affect public opinions as well as the power to affect the elites' decisions. The open access to the expressed views and their opposites increased the citizens' awareness about what is going on in the public sphere. It raised also people's expectations in terms of change, progress, and development. As far as change is concerned, people became aware that the services of the administrations of the public sector are out-of-date and that they should be more developed to meet their needs. This kind of awareness highlights a change at the level of people's evaluation of things. Their evaluation became multi-dimensional in that it is affected by the needs of the national context and the influences of the international context. Thus, there is a change in the way people think about their future. It is a change in the mentality that should be taken into account while thinking about social development.

To sum up, the analysis of the Tunisian social context marked that it witnessed such radical changes in the last few decades. These changes covered all aspects of Tunisians' social life leading the emergence of a new context that is more complex and difficult to deal with. To meet the challenges of these changes and to offer the needs of our society to continue developing, a need to have an up-to-date system of education is mandatory. This means that the main question here is about whether our education is adequate to sustain these changes and to lead the country towards more progress or not. However, the answer to this question finds itself in the study of the problems and challenges of the educational system in Tunisia.

## **Changes in the Tunisian economy**

The Tunisian economic context is not static. However, it is at the cross roads of many changes that can be considered as non-radical or short term reforms. These changes are affected by the internal and external contexts. Since the foundation of the first republic, Tunisia's economy was built around the investigation in the sector of education. There were no plans for industry or for technical innovation. Instead, the economy of the state was based on such traditional sorts of manufacturing that are related mainly to agriculture, artisanal products, mining, etc. This reality makes the Tunisian economy less competitive. Also, it makes it live in such a shaky equilibrium. This shaky equilibrium manifests itself in the rises of many civil protests in different regions of the state against the increase of the prices during the rule of both Bourguiba and Ben Ali. These protests end always by taking such short term solutions to leave the economy of the state flops in its failure. In other words, though there are some reforms to improve the state's economy, the economic situation remains shaky and prone to disturbances. It is prone to disturbances in that the reforms did not include effective solutions. However, these are mere short term remedies that are designed to overcome the existing difficulties. They include examples like the reduction of the tariffs and the devaluation of the dinar (Ayadi and Mattoussi, 2014).

In the 1990's, the same path of non-radical changes continue being implemented. At this time, they were manifested mainly in the liberalization of the market and the encouragement of foreign investment (Chemingui and Dessus, 1999; Ayadi and Mattoussi, 2014). Also, there was a governmental trial towards the modernization and the expanding of the private sector. This structural adjustment of the economy has led to a period of an economic stability the deterioration of which started with the decline of tourism after September 11th, 2001 (African Development Bank & OECD, 2003). The management of such economic factors like trade, prices, and competition and the reforming of the local tax system represented one of the governmental strategies in the reform of the Tunisian economy. However, the efficacy and the success of these policies rely on the stability of the international context (Diallo-Conde and Diomande, 1998). To enhance its economy by building on already made economic progress, Tunisia entered in an association agreement with the European Union since the mid of the 1995 (Jbili and Enders, 1996). This agreement seeks mainly to increase import and export between Tunisian and the EU as well as to increase the contribution of the European investors and tourists in the Tunisian economy. As far as tourism is concerned, Tunisia relied in the reform of the tourism sector while seeking for economic progress (Poirier, 1995). Thus, these reforms are of various kinds. However, they are limited in terms of contributions.

The political investment in the field of scientific research is another strategy that the state resorted to while attempting to reform its economy. Researches were conducted in many fields related to the economy such as agriculture, energy, marketing, health, etc. However, Tunisia's economy is still suffering from disturbances and misbalances. This failure to

get the right ways to build such a strong and competitive economy through research might raise many questions such as the ones related to the nature of the relation between both economy and education. This question continues being a pivotal problematic even in the post-revolution era. During this time of Tunisia's history, it was expected that the economic situation will get improved and that many reforms will be enacted to solve the existing difficulties. However, what is noticed is that the Tunisian government is applying the same strategies of economic reform used in the era before the revolution such as investment in the field of tourism, free marketing, EU-Tunisia partnership, etc. In other words, there are no concrete changes in the strategies of reform though the new elite were aware about the economic difficulties leading to the outbreak of the revolution. This reality emphasizes the fact that Tunisia's attempt to reform should follow a new strategy. It is a strategy that can create an economic system able to guarantee Tunisia's financial stability.

To conclude, Tunisia witnessed many attempts towards the reform of its economy. However, these attempts were mere short-term remedies. This reality could find its explanation in the existing economic reality in which Tunisia is still suffering from economic hardship marked by the increase of poverty and unemployment. When the rate of unemployment becomes higher among graduate students, the mismatch between education and economy becomes a reality that we should explore. Though Tunisia invested in education since its independence, it did not reach an economic progress like other countries such as South Korea and others. This reality triggers a re-think about the problems standing behind the mismatch between the education and economy. Why did the investment in education not contribute to the establishment of a competitive economy? This question will find its answer in the analysis of the changes taking place in the field of education which will be explored in the coming section.

## Changes in Tunisian education

During the first decades of the state's era of independence, education was designed to reduce illiteracy and to build the national state. Also, it was designed to offer skilled employees for the public sector like teaching, health, administration, etc. These needs rose after the French left the country. In other words, it was not oriented towards the creation of a renewable economy that is able to meet the economic changes and the technological progress of the outer context, especially that of the western countries. So, since the early years of the independence, the Tunisian economy was built upon such fragile basis. Its fragility became obvious with the satisfaction of the public sector and the increase of unemployment among the graduates. This implies that a big part of the human capital that Tunisia built from its investment in education did not find the chance to

practice its skills in the labor market. By falling in the realm of unemployment, Tunisian education showed a mismatch with the needs of society and that of economy. First, it failed to meet social needs in that newly graduated students will not be able to get integrated into their society and economy. Second, it did not succeed to fit with the economic system because it failed to lead an economic progress and to increase the market's capacity to welcome the newly graduated students. In brief, this mismatch highlights from the early beginning that something was going wrong in terms of educational planning.

By facing these challenges, Tunisian policy makers brought different reforms to the field. These reforms started with the movement from the quantitative matters to the qualitative ones. This change was required in that the state has no need to number like in the years following its independence. However, it has the need for the quality of the skills of its newly graduated students (Akkari, 2005). Systematic and institutional reforms were made focusing on the creation of higher institutes of technologies. These reforms sought to make higher education able to meet the needs of the state's economy as well as to be up-to-date with the evolution of science and technology. Faculties were central for reform too. These reforms aimed to develop the faculties' capacities to produce. For instances, both research and publishing were encouraged and financed. The Tunisian university moved also from the traditional system of education to the new system of license – master – doctorate that is applied in the European countries. The university programmes were central for continual change and improvement to fit with the development of the internal context and the progress of the external context. The staff was another cornerstone in the reform of higher education. The state gave a great importance to the quality of the working staff by offering pedagogical trainings (Boukthir et al., 2017). In brief, the Tunisian university witnessed many changes at the structural level. However, these changes will not be of great value if the pedagogies and methods of teaching are not submitted to reform.

As far as the ways of teaching and learning are concerned, Tunisian experts' attempts to reform higher education covered both style and techniques. For instance, the traditional style of teaching knowledge was replaced by a new style of teaching creative thinking and critical reasoning during the 1990's. This was meant to give students more chance to put their skills into practice before getting their graduations. To increase students' ability to learn and to create, higher education reformers resort to innovation in the methods of both teaching and learning. These innovative methods were meant to push students to develop themselves and enable them to think critically for the resolution of the problems of their days. Moreover, innovative pedagogy was brought as an alternative to traditional pedagogy. This replacement sought mainly to give

importance to the use of technology in the field of higher education. It aimed to reduce the role of the teacher, as the only source of information in the traditional pedagogy, and to give students the chance to use technology to search for and to build knowledge. In brief, by adopting innovative pedagogy and method of teaching, experts sought to give more autonomy to the student. This autonomy is created to keep the student at the center of the teaching/learning process.

To recapitulate, higher education in Tunisia witnessed many reforms throughout its history. These reforms are carried at various levels to make the university teaching serve the social development and the economic progress of the state. However, what was noticed is that the educational system's role to serve both society and economy is limited. It is limited in that both sectors are living in such difficulties since decades before. These difficulties culminate in the outbreak of the revolution in 2011 and the continual devaluation of the dinar in the post revolution era. This mismatch between the three concepts of society, economy, and education leads to the formulation of a critical question: why did the education fail to match the needs of both society and economy? The answer to this question finds itself in the discussion part where light will be shed on the problems and challenges of the Tunisian education to close the discussion by giving possible solutions.

#### DISCUSSION

It is clear that Tunisian higher education suffers from such problems that are preventing it from fitting with the needs of both society and economy. These problems are of various kinds. One of the main problems manifests itself in the mismatch between theory and practice. This means that what have been planned for as theories to reform our higher education remained at the level of papers. For instance, the staff might face many difficulties to apply the innovative pedagogies and methods capitalized by education experts. This problem might express itself also at the level of the staff's lack for the academic skills required to apply the experts' theoretical innovations in their classes. The shortage that this sector has in terms of skills might find its explanation in the academic quality of the working staff. Our higher education staff still includes among its members secondary school teachers, master students, and researchers enrolled in doctoral programmes. The lack of the required skills to apply innovation among members of the teaching staff might be also explained by the limitedness of the offered trainings, especially in terms of quantity. As far as the staff is concerned, a few members of the skilled staff are engaged in research for life. They are researchers without production. They are teaching the same courses with the same pedagogies and methods for a long time away from innovating and making their classes context-dependent. Therefore, the gap between theorizing and practicing represents an obstacle for

our education to evolve with the social and economic developments.

Another problem preventing our higher education from matching with the needs of both our society and economy is that of orientedness. Orientedness here means the condition or state of having our education oriented towards such specific job markets. Since the formation of the national state, Tunisia's education was oriented towards employing in public sector. With the increase of the number of graduates in the coming years, this sector has become unable to offer more job opportunities. This reality has led to the increase of unemployment. Most of the graduates fail to find an alternative job if not employed in the public sector, while few others succeed to do that. In other words, the limitedness of the ability of our higher education to build creativity on its graduates is another problem that prevents our education from matching the changes of both society and economy. Being unable to motivate creativity and to prepare its students to invent their own projects, higher education shows its disability to be context-dependent. Hence, the issue of adaptivity represents another problem that our education faces to meet the changes of the social and economic contexts. Adaptivity in this context means the ability of our education system to adapt its programmes with the characteristics of the historical context in which they are practiced. The technical shortage to keep our education context-dependent is associated with the existence of a lack of predictability. Here, predictability should be understood in terms of our education experts' ability to predict the challenges of the future. This failure to predict the future could be justified by the continuous failure of our education to create a more prosperous Tunisia. This problem manifests itself also in the creation of such fruitless new specialties in higher education.

The creation of new specialties and the study of its ability to meet the future needs of society and economy is another crucial problem that should be re-visited. In some higher institutes, the creation of such new specialties that do not fit with the demands of the job market was noticed. In the Higher Institute of Language of Gabes, for instance, a new specialty connected to the field of touristic services was created in a context during which tourism in Tunisia witnessed a degradation starting from September 11th, 2001. Here, one might ask: do the creators of this specialty have an eye on the sector and its future challenges? As far as specialty is concerned, the spread of such specialties in institutions from the south to the north makes the market full of these skills and lead to unemployment among its graduates. However, the market is in need for other skills. This means that the logic of creating and distributing specialties lacks having the techniques required for the evaluation of the needs of the market and the determination of what is the best specialty needed to create to serve the economy. This fact represents another problem that affects higher education's fitness with the demands of the economy and the needs of the society. Thus, the problem of specialty creation and the skills to be taught is one of the crucial points that should be taken into account while seeking to make education match the needs of the days.

Briefly, the discussion of the results of the analysis showed that though Tunisian higher education witnessed many reforms, it still faces such problems and future challenges. The examination of these problems highlighted that there is a gap between the act of theorizing for innovation and the practice of it. A mismatch between what the education reformers expect and what the social and economic context need is also proved to be a pivotal matter. Moreover, a temporal disconnection between past, present, and future is there too. It is there in that the Tunisian education is facing a problem of matching with society and economy since many years, still facing it now, and it might face it in the future since the reformers' ability to predict the future challenges of both economy and society is still limited. Therefore, to meet the existing challenges, there is a need to look for the right strategies to solve the above problems. These strategies manifest themselves mainly in the readdressing of innovation with an eye on the challenges of such possible future changes in society and economy.

#### CONCLUSION AND RECOMMENDATION

This paper offered a critical discussion to the problems and challenges of the Tunisian higher education system during the 21st century. This discussion is carried using a multidisciplinary frame of analysis that combines theories of social change, economic change, educational innovation, and matching. The application of these theories in the analysis of the changes taking place in the Tunisian society, economy, and education highlighted that the Tunisian higher education failed to match the needs of both the social and the economic contexts. In other words, though there are many attempts to innovate at all levels of the education sector, many problems and challenges are still there to face. The examination of these problems highlighted that the experts' reforms are limited in terms of efficacy. These are limited due to the existence of a gap between what the experts are theorizing for and what could be practiced in the teaching process.

The limitedness of the innovation process to make our education fit with both social and economic changes has led to the writing of several recommendations. First, any attempt to theorize for educational innovation should start from the critical understanding of the atmosphere of teaching and learning. In other words, there need to be awareness about what can be achieve by carrying any attempt to reform before theorizing. This task is important in that it enables such theories to reduce the gap existing between theory and practice. Second, there is a need to make any attempt

towards reforming a context-dependent task. It should be context-dependent in the sense that it starts from the existing problems, predicting the challenges of the future, and identifying the strategies to be used to (re)create match between these interrelated concepts: society, economy, and education. Third, any attempt to reform should be designed in the way that reduces graduates' reliance on the limited job opportunities offered by the public sector and to increase their ability to create their own business. Therefore, the sort of innovation our higher education needs is the one that is able to lead the outbreak of an economic revolution that is able to build a more prosperous state.

Despite bringing such valuable recommendations, this paper might suffer the existence of some limitations. For instance, the paper lacks the existence of empirical justifications. The study of the topic used a pure qualitative method of data analysis, though the quantitative method might represent another important axe of the study. It is needed to make the findings obtained via the use of the qualitative method justified by concrete numbers. However, this lack for empirical data did not affect the quality of the research and that of the results it sought to achieve since problems and challenges are highlighted and solutions are found.

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#### **Conflict of interests**

The author of this paper declares that this study has no conflict of interests with any party in the world. However, it is carried for the sake of an objective scientific study of the phenomenon of mismatch between supplies of Tunisian higher education and the demands of Tunisian economy and society.

#### **REFERENCES**

- African Development Bank and OECD. (2003). Tunisia. African Economic Outlook, 309-320. https://doi.org/10.1787/aeo-2003-en
- Akkari, A. (2005). The Tunisian Educational Reform: From Quantity to Quality and the Need for Monitoring and Assessment. *Prospects*, 35(1), 59-74. http://dx.doi.org/10.1007/s11125-005-6818-8
- Azhar, S. A. & Zandi, M. A. (2018). The Gap between Educational System and Job Market in International Business Law: A Model of Specialization for Solving the Problem. *International Journal of Vocational Education and Training Research*, 3(6), 51-60. http://dx.doi.org/10.11648/j.ijvetr.20170306.11

- Ayadi, M. & Mattoussi, W. (2014). Scoping of the Tunisian Economy. WIDER Working Paper 2014/074. Helsinki: UNU-WIDER. https://doi.org/10.35188/UNU-WIDER/2014/795-0
- Boateng, K. (2002). Higher Education and the Labour: A logical Framework for Policy Makers in Africa's Education Sector. *Economic and Social Policy Division*. Addis Ababa: Economic Commission for Africa. https://repository.uneca.org/bitstream/handle/10855/219 15/Bib-69726.pdf?sequence=1&isAllowed=y
- Boukthir, M., Baklouti, A. Ouederni, A. & Mlaoueh, A. (2017).

  Overview of the Higher Education System: Tunisia.

  Publication of the European Commission.

  https://data.europa.eu/doi/10.2797/48622
- Breisinger, C. & Diao, X. (2008). Economic Transformation in Theory and Practice: What are the Messages for Africa? ReSAKSS Working Paper, No. 10, 1-50. https://www.resakss.org/sites/default/files/pdfs/economic -transformation-in-theory-and-practice-wha-39396.pdf
- Carson, J. (2007). A Problem with Problem Solving: Teaching Thinking without Teaching Knowledge. *The Mathematics Educator*, 17(2), 7–14. https://files.eric.ed.gov/fulltext/EJ841561.pdf
- Chemingui, M. A. & Dessus, S. (1999). The Liberalization of the Tunisian Agriculture and the European Union: A perspective Analysis. *OECD Development Centre Technical Paper 144*. https://dx.doi.org/10.2139/ssrn.147228
- Corominas, E., Saurina, C. & Villar, E. (2010). The Match between University Education and Graduate Labour Market Outcomes (Education-Job Match): An Analysis of Three Graduate Cohorts in Catalonia. (Shouthgate, C. Trans.). Catalnuya: Universitari de Catalnuya. https://www.aqu.cat/doc/doc\_12987231\_1.pdf
- Diallo-Conde, K. & Diomande, K. M. (1998). Tunisia Economic And Financial Reforms Strengthening Programme (PRREF) Completion Report. African Development Bank. https://www.afdb.org/fileadmin/uploads/afdb/Documents/Project-and-Operations/ADB-BD-IF-98-77-EN-ESPS-003677826.PDF
- Dopfer, K. & Potts, J. (2008). *The General Theory of Economic Evolution*. London: Routledge. http://dx.doi.org/10.4324/9780203507407
- Dopfer, K. & Potts, J. (2009). On the Theory of Economic Evolution. *Evolutionary and Institutional Economics Review*, 6(1), 23-44. http://dx.doi.org/10.14441/eier.6.23
- Ferguson, R., Barzilai, S., Ben-Zvi, D., Chinn, C. A., Herodotou, C., Hod, Y., Kali, Y., Kukulska-Hulme, A., Kupermintz, H., McAndrew, P., Rienties, B., Sagy, O., Scanlon, E., Sharples, M., Weller, M., & Whitelock, D. (2017). Innovating Pedagogy: Exploring new Forms of Teaching, Learning and Assessment, to Guide Educators and Policy Makers. Milton Keynes: The Open

- University, UK. https://oro.open.ac.uk/52761/1/52761.pdf Gale, D. & Shapley, L. S. (1962). College Admissions and the Stability of Marriage. *Mathematical Association of America*, 69(1), 9-15. http://www.jstor.org/stable/2312726
- Goatley, V. J. & Johnston, P. (2013). Innovation, Research, and Policy: Evolutions in Classroom Teaching. Language Arts, 91(2), 94-104, http://scholarsarchive.library.albany.edu/eltl\_fac\_scholar/6
- Haferkamp, H. & Smelser, N. J. (Eds.). (1992). Social Change and Modernity. Berkley: University of California. http://ark.cdlib.org/ark:/13030/ft6000078s/
- Helly, D. (2014). Tunisia Country Report: *Preparatory Action Culture in European External Relations*. https://silo.tips/download/country-report-tunisia-19032014-1
- Jbili, A. & Enders, K. (1996). The Association Agreement between Tunisia and the European Union. *Finance & Development*, pp. 18-20. https://www.imf.org/external/pubs/ft/fandd/1996/09/pdf/jbili.pdf
- Kollmorgen, R. (2010). Transformation Theory and Socioeconomic Change in Central and Eastern Europe: A Conceptual Framework. *Employment and Economy in Central and Eastern Europe (EMECON)*, 1, 1–17.
- Korpi, T & Tahlin, M. (2007). Education Mismatch, Wage and Wage Growth: Over-Education in Sweden, 1974-2000. Working Paper Series 10/2007, Stockholm University, Swedish Institute for Social Research. https://www.su.se/polopoly\_fs/1.65033.1323949621!/WP 07no10.pdf
- Litch, A. H., Tasiopoulou, E. & Wastiau, P. (2017). *Open Book of Educational Innovation*. Brussels, Belgium: European Schoolnet. http://www.eun.org/documents/411753/817341/Open\_book\_of\_Innovational\_Education.pdf/c1044658-5793-408c-8acb-a041338111ef
- Miner, R. (2010). People without Jobs, Jobs without People:
  Ontario Labour Market Future. *Management Consultants*.
  http://minerandminer.ca/data/CO\_PWJ\_Brochure\_CAN\_2010\_v4.pdf
- Macionis, J. J. (1996). Sociology. US: Prentice Hall.
- Mohamed, A., Jemmali, H. & Ayadi, M. (2017). Rural-Urban Migration and Income Disparity in Tunisia: A Decomposition Analysis. *Working Paper Series*, 1085. https://erf.org.eg/app/uploads/2017/04/1085.pdf
- Moore, W. E. (1967). Order and Change. Essays in Comparative Sociology. New York: John Wiley and Sons.
- Morariu, C. N. & Ignat, M. D. (2011). Social-Economic Theoretical Connections: Theories of Social Change. *Journal of Social Economy*, 1, 26-48.

- Mykhailyshyn, H., Condur, O. & Serman, L. (2018). Innovation of Education and Educational Innovations in Conditions of Modern Higher Education Institution. *Journal of Vasyl Stefanyk Precarpathian National University*, *JPNU*, 5(1), 6-19. https://doi.org/10.15330/jpnu.5.1.9-16
- Ndyaly, L. (2016). Higher Education System and Jobless Graduates in Tanzania. *Journal of Education and Practice*, 7(4), 116-121. https://files.eric.ed.gov/fulltext/EJ1092388.pdf
- Nelson, R. R. & Winter, S. G. (1982). *An Evolutionary Theory of Economic Change*. Harvard College. https://www.hup.harvard.edu/books/9780674272286
- Nicolaides, A. (2012). Innovative teaching and learning methodologies for higher education Institutions. Educational Research, 3(8), 620-626. https://www.interesjournals.org/articles/innovative-teaching-and-learning-methodologies-for-higher-education-institutions.pdf
- Nikolov, A., Nikolova, D., Ganev, P. & Aleksiev, Y. (2018). Skills Mismatch: An Impediment to the Competitiveness of EU Business. *European Economic and Social Committee*. https://epale.ec.europa.eu/sites/default/files/skills mism
  - nttps://epale.ec.europa.eu/sites/default/files/skills\_mismatches.pdf
- Oxford Advanced Learner's Dictionary (2007). New York: Oxford University Press.
- Pandolfini, V. (2013). Innovation and Education Systems: Teachers Experiencing Interactive Whiteboards. *International Journal of Scientific and Research Publications*, *3*(10), 1-8. https://www.ijsrp.org/research-paper-1013/ijsrp-p2250.pdf
- Poirier, R. A. (1995). Tourism and Development in Tunisia. *Annals of Tourism Research*, 22(1), 157-171. https://doi.org/10.1016/0160-7383(94)00053-U
- Russell, D. L., & Schneiderheinze, A. (2005). Understanding Innovation in Education Using Activity Theory. *Educational Technology & Society, 8*(1), 38-53.
- Takala, T. (2010). Contributions of Formal Education to Social Development What do we Know on the Basis of Research Evidence? *Journal of Education and Research*, 2, 1-8. http://dx.doi.org/10.3126/jer.v2i0.7616
- Trommsdorff, G. (2000). Effects of Social Change on Individual Development: The Role of Social and Personal Factors and the Timing of Events. In L. J. Crockett, & R. K. Silbereisen, (Eds.). Negotiating Adolescence in Times of Social Change (pp. 58-68). Cambridge: Cambridge University Press. https://doi.org/10.1017/CBO9780511600906.005
- World Population Review (WPR) (2019, November, 18th). *Tunisia Population*. http://worldpopulationreview.com/countries/tunisia-population/
- Zuccotti, C. V., Geddes, A. P., Bacchi, A., Nori, M. &

Stojanov, R. (2018). Rural Migration in Tunisia Drivers and Patterns of Rural Youth Migration and its Impact on Food Security and Rural Livelihoods in Tunisia. Rome: Food and Agriculture Organization of the United Nations. http://www.fao.org/documents/card/en/c/l9193EN

Zuljan, M. V. & Vogrinc, J. (Eds.) (2010). Facilitating Effective Student Learning through Teacher Research and Innovation. Ljubljana: Faculty of Education. https://science-education-research.com/downloads/publications/2000/Ljubljana-Teacher-Research-Book.pdf