Teacher and The Challenges of Educational Technology In Algerian Primary School

المعلم وتحديات تكنولوجيا التعليم في المدرسة الابتدائية الجزائرية

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Abstract

This article aims to reveal the reality of the teacher in the light of the new reforms, from the view of the teaching staff of the Algerian primary school, with a highlight of the applied strategies for its development and evolution, professionally and scientifically, to meet the challenges of modern education technology, as this step is essential for achieving sustainable professional development in the teaching profession, This was done through a field study based on the descriptive method and an intentional sample of 47 individuals.

The results of the study showed that the teacher at the Algerian elementary school lived in a state of dissatisfaction and resentment with the new laws and reforms, with not providing the material and moral means to keep pace with modern education technology.

Keywords: School; Teacher; Professional Development; Education and Teaching Technology.

ملخص

يهدف هذا المقال إلى تبيان واقع المعلم في ظل الإصلاحات الجديدة من وجهة نظر هيئة التدريس في المدرسة الابتدائية الجزائرية، مع إبراز الاستراتيجيات المطبقة لأجل تطويره وتنميته مهنيا وعلميا، لمواجهة تحديات تكنلوجيا التعليم الحديثة، لأن هذه الخطوة تعد أساسية للوصول إلى عملية التنمية المهنية المستدامة في مهنة التدريس، وهذا من خلال دراسة ميدانية اعتمدت على المنهج الوصفي، وعينة قصدية تتكون من 47 مفردة.

وقد بينت نتائج الدراسة أن المعلم في المدرسة الابتدائية الجزائرية يعيش حالة من عدم الرضا والاستياء من القوانين والإصلاحات الجديدة مع عدم توفير الإمكانيات المادية والمعنوية لمواكبة تكنلوجيا التعليم الحديثة.

الكلمات المفتاحية: المدرسة، المعلم، التنمية المهنية، تكنلوجيا التعليم والتدريس.

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1. Introduction

Many researchers in the field of education are unanimous that the teacher is the fundamental pillar of the educational process. Any change or development in this process can be made only through the development of the teacher. Thus, his development in all aspects is the fundamental step towards achieving sustainable professional development in the teaching profession.

"In 1998, UNESCO considered teacher preparation to be a proven strategy for facing the education crisis in today's world."(Ardoino, 2000, p46). Therefore, the deepening and development of the teaching profession requires the integrated preparation of the teacher, academically, professionally and culturally. It also requires the development of education to enable him to interact creatively with the requirements of his specialty and the updates of the age of knowledge economy and teaching and learning modern technology.

Accordingly, the issue of teachers' training and supporting them in their professional and material development in Algeria took a special place in the educational planning processes of the Ministry of Education, so that the training of teachers and administrators turned into development strategies, targeting development and modernization, especially in the recent years and after the educational reforms initiated since 2003.

On this basis, the study seeks to identify the educational landscape of the Algerian elementary school, by highlighting the reality of the teacher in the Algerian school and his role in the field of education and teaching, and knowing the strategy through which decision makers work for the teacher's development and his professional evolution, especially in the age of knowledge and modern education and teaching technology.

The teacher is at the core of the educational renewal process, because he is a key participant in determining the quality and future of education, based on which the pupils' abilities and skills are developed, to make of them effective and distinct human resources, with high morale and broad ambitions.

So, he needs constant professional development, since the teacher cannot live for his lifetime, with a specific set of knowledge and skills, especially with the tremendous cognitive advances of the present era... It has become necessary for the teacher to maintain a renewed level of information, skills and modern trends in the methods and techniques of education, especially in the context of the technology and information revolution. The process of professional development has become even more

necessary, in order to provide the teacher with the necessary educational service, which includes providing him with updates in methods and techniques of teaching, learning and education.

Thus, in our view, the profession of education is in constant evolvement and growth, "Because the teacher is an effective component of his work, it has therefore become necessary to reconsider the understanding of the educational process and its renewed objectives due to the enormous developments and rapid changes in teaching and learning methods. Hence, it appears the importance of strategic methods, namely educational habilitation and training, which are most relevant to the professional evolution of teachers, for the development of their educational and administrative performance and their teaching, evaluation and testing methods." (Ray, 2003, p 61).

As the schools in Algeria are under the Ministry of Education, which in turn appoints teachers at all levels and takes care in charge their financial, health and social affairs, it works then on preparing the necessary plans for their professional development, motivation, performance evaluation and training.

This is confirmed by the Ministry's educational reform process. "Starting from the school year 2003/2004, the same year during which the scientific school began its activity in accordance with a strategic plan, the establishment of these schools was permitted by Presidential Order No. 03-09 of August 13th, 2003, completing and modifying the Order No. 76-35 of April 16th, 1976." (Cherifi, 2014, p. 13), which gave special importance to the teacher, and considered him one of the basic poles to be taken care of and taken in charge, because the educational profession is responsible for establishing change and renewal in society and guiding its culture and transforming it into a modern society, capable of facing the challenges.

But, when observing the current situation of teachers, we clearly note the teacher's position as it breaks down and is shrinking, in terms of the fact that the laws and officials do not actually support and protect him, so that he is deprived of many material and moral privileges, such as the issue of remuneration, as well as the participation in educational decision-making and curriculum design and construction, which is confirmed by successive strikes of teachers, especially in recent years.

Hence, this study comes as a serious attempt to identify the multiple aspects of a subject that concerns all the elements of the educational

process, in an age described as an age of information technology, as the means of knowledge are diversified and its sources are multiplied. The study tries also to highlight the role of the teacher in this situation, and his ability to deal with its sophisticated tools and to keep pace with its accelerated changes, so as to ensure that the educational objectives expected in this area are achieved.

Among the above, especially after the reforms and amendments made by the Ministry of Education, are addressed many questions, some of which the current study will try to answer:

- ✓ What is the reality of the teacher's situation under the new reforms, in primary school?
- ✓ What strategies are in place for teacher development and professional development, to meet the challenges of the modern technology of teaching?

1.2.   Hypotheses of the Study:
- ✓ In recent years, the teacher suffers from many problems, chaos and dissatisfaction with fluctuations resulting from a lack of scientific reference in the process of approving reforms.
- ✓ The Ministry of Education has applied many modern strategies for the development of the teacher and his professional evolution and to help him keep up with the modern technology of education .

3. Definition of Terminologies:
3.1. Teacher:

The teacher is defined as "part of the executing organs of the mission of education in society; he is the first and fundamental factor who is based on the transfer of scientific and moral information and knowledge in the construction of society, which is done within the school" (Medkour, 1973, p. 113).

It is also defined as: "The educator who teaches all or most of the subjects for the first three phases of primary school and focuses his role in the creation of teaching and learning conditions, with a view to pursuing his mental, physical, aesthetic, sensory, social and moral development." (Shahata, Al-Nadjar, 2003, p. 45).

From the foregoing, the teacher is an official job title of one of the teaching staff's functions at the level of school, within technical and educational disciplines and roles, through which the pupils who will be the men of the future are taught and educated.

3.2. Professional Development : "it is a continuous process, planned in an orderly and actionable manner, to upgrade the performance of the teacher by giving him the necessary skills and developing his positive orientations, to improve the level of learning and teaching, in response to the changes and needs of society" (Al-Samarra'i, 2013, p. 125).

It was also defined as: "This process aiming at adding a new professional knowledge to the teacher and developing his professional skills and enabling him to achieve effective education for students" (Al-Samarra'i, 2013, p. 126).

"Bolam defined it as the process aiming at achieving the objectives among which we mention:

Adding new professional knowledge to teachers, developing professional skills, enabling them to achieve a successful education for their pupils, developing and affirming the supportive values for their behaviour "(Al-Obaidi, 1998, p. 89).

Thus, professional development is a structured effort to improve teachers' and education conditions; so, it is a comprehensive process to raise their managerial and pedagogical performance.

3.3 Technology of Education and Teaching : In a publication by the association for 2008, it is stated that the technology of education is the study and ethical practice to facilitate education and improve performance through innovation, the use and management of appropriate technological processes and sources. "(Gray, 2008, p17).

It was also defined as: "The set of methods using technology to measure students' intangible skills, in addition to education programs for students and teachers, such as those that provide teachers with feedback on students' strengths and weaknesses and guide them through rich and varied technological resources, and examine each student's logical thinking skills and increase his ability to devise abstract concepts; It is worth mentioning that these things need constructive settings because technology provides creativity to man. " (Gray, 2008, p18)

From the foregoing, education and teaching technology is the process of using education technology for today's teachers. They are necessary skills that are the model of 21st century skills that students need.

4. The Teacher and challenges of the technology of education:

The teacher's ongoing effort and his targeted professional development to refine and develop his competencies, support the development of education and its means of reform, thereby contribute to the

achievement of inclusive development based on reality and forward-looking, achieving the aspirations of the nation and the citizen in a world where knowledge has become the real force, and education has become the effective means of achieving development and progress for both the individual and society.

4.1. Teacher development and evolution: Teachers are not all the same, they are from different and diverse cultural environments, their interests are not the same, there are many kinds of teachers such as lazy teacher, old teacher, dictator teacher, the opponent teacher and others; thus, the parties in charge of the educational system must develop programs and strategies that enable teachers to regenerate and develop their knowledge and help them keep pace with technological developments in this field by:

- ✓ "Training teachers on how to shape abstract concepts and positive trends and link them to available subjects of both curricula and societal issues and problems.
- ✓ The Concern of the teacher to translate his positive experiences into practice in various educational situations and to conform his behavior to his thoughts in the minds of the pupils, by being concerned to articulate the concepts and dimensions of citizenship (identity, belonging, freedom, political participation) in the form of behaviors the pupils are trained to, through classroom and non-classroom activities.
- ✓ To make sure to stress the importance of unification with the community and the emotional empathy among its members, which facilitates the processes of accepting the other and diversity within the framework of the union that expresses diversity.
- ✓ Consolidating the idea of the development among teachers and the need to keep pace with the age of knowledge, globalization and technological development. "(Vicki,2002,p63).

Accordingly, the issue of developing and modernizing teachers' skills and supporting them in their professional and material development, has taken a distinct place in the educational planning processes of the Ministry of Education in all the countries of the world, until the training of teachers and administrators has turned into sustainable professional development, the latter is defined as: "An ongoing participatory constructive development process, targeting teachers and other educational personnel, in order to change and develop their performance, practices, skills and

cognitive, educational, technical, administrative and ethical competencies." This concept has been translated in the system into objectives as follows:

- Developing a culture of apprenticeship in the educational institution.
- Upgrading the performance of teachers and other personnel in the field of education.
- Improving opportunities for scientific excellence and learners' academic achievement.
- Raising the productive efficiency of the educational institution.
- Making positive changes in the behavior and attitudes of teachers and other personnel in the educational process.
- Providing opportunities for distinguished and creative teachers to graduate and get promoted in their careers.
- Improving the learning process.
- Consolidating the principle of continuous self-learning and ensuring the sustainability of development and educational evolution.
- Achieving the professional satisfaction for teachers and other workers in the field of education.
- Deepening the sense of professional affiliation for teachers in the field of education.
- Building the national capacities which are capable of achieving the country's overall development.
- Developing career fellowship. " (Gilles, 2006, p. 67).

4.2. Challenges of Teaching Technology for Teachers:

Every day, teachers face the challenge of helping students meet content standards and learning outcomes in a limited time, with specific sources, and in highly crowded classrooms, so, adding technology to this mix may seem challenging to even the most enthusiastic teachers. "Therefore, technology in the field of education helps to promote learning, helps to address differentiation and diversity, helps to promote critical thinking and also helps to promote creativity and innovation." (Azarma,2001p36) Its main objective is to activate learning, that is, to emphasize the outcomes of the educational process.

From the foregoing, the role of technology in modernizing education is reflected, as the term has changed from traditional to electronic modern education, as shown in the following table:

Table 01: Traditional and Modern Education

Traditional Education	Modern Education
The classroom is a specific place.	Any place can constitute a classroom.
The school time is specific.	Any time is suitable for class.
Textbooks are based on words and illustrations.	E-books include audio and visual effects, animations and scientific movies.
Student privacy is not available.	Student privacy is available
Learning depends on speed or slow understanding.	Learning is not affected by the speed or slow understanding.
Contacting classmates and teachers during class.	Questions for the teacher are unlimited.

Source: (Azarma ,2001,p23)

Education technology has objectives, among which we mention:

- Placing students in thought-provoking situations.
- Increasing students' positive participation, through diversity in the lesson presentation.
- Helping the teacher to better display the subject and make better use of the teaching time.
- Shorten teaching time and effort in the preparation and implementation of the lesson.
- Oving away from traditional methods and making teaching closer to the nature of the age.
- Working on taking into account the individual differences between students.
- Creating an opportunity for self-learning and individual learning for the student.
- Increasing the productivity of the educational institution quantitively and qualitatively.
- Stimulating the learner's motivation, interest and excitement to learn.
- Helping and stabilizing remembrance and speed of learning. "(Vicki, 2002, p. 91).

Among the techniques of education technology, we mention:

- "Printed materials such as: educational programs, lessons manuals and curricula.
- Audio technology such as: audio-based technology tapes, radio broadcasting and telephones.
- Electronic illustrations such as: electronic tablet and fax.
- Video technology such as: educational TV, regular TV, interactive video, video tapes and video discs.
- Computer and its networks: such as: educational computer, e-mail discussions, Internet and digital video discussions ". (Qindil, 2006, p. 101).

Traditional teaching methods have been challenged by technically and digitally enhanced teaching and learning methods, where this trend has received different reactions, on one hand, it is feared that these new techniques will completely replace teachers, and on the other hand, expectations for technology can be overly optimistic, that it will solve all learning problems.

Teachers always seek to improve students' achievement by increasing the quality of educational time, so, they use digital devices such as tablets, apps and computers, which have been able to change the roles of the teacher and student at the same time, and achieve the maximum digital-electronic cognitive effect, but this is when used correctly; technology can give teachers more time, by allowing them to provide distinctive guidance to students. Teachers can choose to give less lectures and spend more time training students, As a group or individually, on how to use digital devices to discover them by themselves, Thus, learning becomes concentrated for students when they have the opportunity to explore digital devices according to their own skills, by combining student-led discoveries with traditional learning formats. Hence, classroom time becomes more interactive and attractive to students.

5. Field Work:
5.1. Areas of Study:
* The space: the field work was conducted in the new city of Ali Mendjeli, Wilaya of Constantine and concerned the elementary school "Al Farabi", which was launched in 2012.
* The time: the field work took a full month "from September 5th, 2022 until October 8th, 2022, where the forms were distributed to the professors, and some of them were interviewed, especially those who were in the educational reform committees.
* The human field: it included all the teachers in the school whose teaching experience is at least 10 years, who represent (47 teachers).

5.2. Method of the Study: Social research scientists agree that the approach does not hinge the phenomenon but goes beyond providing an explanation for it ", as the researcher is not convinced by naming or classifying them, but goes beyond knowing the underlying causes of their occurrence; based on the aims of the study, which is to know the situation of the teacher in the Algerian primary school after the new educational reforms and the teacher's ability to meet the challenges of education technology, under the development strategies made available by the Ministry of Education. Therefore, the nature of this study calls for the analytical descriptive methods, because it is the appropriate method for such type of research, according to researcher.

5.3. Data Gathering Tools:
        As for data gathering tools, the researcher relied on the half-oriented interview as a suitable technique the subject matter of our study, because this type of interview does not require any condition, as it allows the interviewer to address the subject more freely.
The researcher also relied on an important and inevitable tool in descriptive research, namely a questionnaire, which consisted of 25 questions, divided into four main axes:
First axis: Personal data.
Second axis: The situation of the teacher in Algerian primary schools.
Third axis: new strategies in the educational system for teacher development.
Fourth axis: The contribution of new reforms to the integration of modern education and teaching technology.

5.4. The study sample :
This study used the intentional sample, which included 47 individuals among the teachers of "Al Farabi" school, the New City Ali Mendjeli, Wilaya of Constantine, who have at least 10 years of competence and experience, and excluding the trainees category.

6. Presentation of the results of the study:
- The situation of the teacher in the Algerian primary school shows the dissatisfaction and resentment with the laws and reforms that have not given or redressed the teacher's right. This has a negative impact on the quality of education in Algeria.

- Algeria's social, economic, political and cultural changes, most notably the French colonial policy, have adversely affected the content of educational curricula, particularly at the primary level.
- The perception of the teaching staff of educational reforms varied, increasing the debate in the school and a lot of arguing that always ends in strikes and disagreements between the Ministry and many parties of the educational system.
- The current educational reforms carry with them many gains and strengths that must be valued while working to correct the course of certain errors to advance this sensitive and important sector.
- Many members of the sample stressed that the process of reform of the education sector requires consultation and dialogue among all members to reach consensual options with the possibility of change and modification.
- The new reforms have contributed to laying the foundations of religious and environmental education and Algerian Islamic and Amazigh culture in the curricula of the second generation, by including many subjects relevant to our Algerian culture, which we cherish.
- The majority of the members of the sample confirmed that the reforms burdened the teacher, especially in the second-generation programs.
- The Ministry has developed strategies and plans for the professional development of teachers, but they have not been reflected on the ground.
- The teacher in the Algerian school was unable to keep pace with the developments of globalization and modern education and teaching technologies, despite all the reforms and efforts undertaken by the Government.
- Many interviewees confirmed that the reforms in Algeria's educational system have no scientific and cultural reference.
- The teacher prefers attendance to distance education.
- The Ministry's efforts to digitize the school remain limited and far from international standards.
- There are many obstacles to the integration of educational technology into the Algerian school, namely technical and educational obstacles.
- Poor information technology infrastructure, such as poor Internet flow in schools and residential complexes.
- Many pupils are unable to use information and communication technology "access to the distance learning platform".
- Lack of the local human resources specialized in programing and information systems.

7. Conclusion:

From the ancient time, the attitude towards the teacher is the appreciation and reverence, and that he has a sacred and noble message throughout the ages, as he is the teacher and educator of generations. If we consider the meaning of this sacred message and honorable profession, we conclude that the profession of education chosen by and belonging to the teacher is a fundamental occupation and an important pillar of the progress and sovereignty of nations, some nations attribute their failure or success to the teacher and education policy and attributes its progress in the areas of civilization and sophistication to education policy as well.

The teacher occupies a distinct position among the actors and influencing elements, in building the student's personality and preparing him for the future; researchers confirm that teachers will be the renewable factor for the quality of education in the years ahead, They also emphasize that technology will increase and will not reduce the need for good teachers and skilled teaching methods and that we need to increase our investments in human resources and in the professional development of educators, There is a need to attract a new pattern of teachers if we are to reform the educational system in the future.

The current study confirmed that the educational reforms in Algeria did not give the teacher his right, as demonstrated by the strikes and cracks that continue to this day, in protest against the disastrous conditions of the teacher in the Algerian school, which have negatively reflected on all the educational system, especially the level of pupils that has experienced a significant decline, especially in recent years.

As for modern pedagogical techniques, it is not a substitute for the teacher, but tools that he invests to operationalize his role and deepen the impact of education and to empower his pupils, To help them develop their energies to the greatest possible extent, since they have not diminished the role of the teacher, but supported it and made it a distinct role that requires sophisticated skills and competencies, in accordance with the information community and the needs of pupils, by placing education in new paths that distance the profession of teacher from traditional roles.

Among the suggestions under which the teacher is developed and updated are:

- The necessity of enhancing awareness among the members of society, especially pupils, of the importance and status of the teacher and the profession of teaching, as increasing the number of teachers must not affect the teacher's status.

- The necessity of working on raising the economic level of the teacher by increasing his wage to be equal with his fellows from other professions.
- When choosing the teaching profession, the selection criterion must be based on objectivity, as it excludes those who do not have the bases of working in the teaching profession, because it is an art and profession at the same time.
- Raising teachers' awareness of their professional duties and social status, as many teachers perform their job automatically and without sufficient awareness of the importance of the profession.
- Continuing the training of teachers during the service while emphasizing the importance of developing their capacities in line with modern education technology worldwide.
- The Ministry of Education must provide legislation and laws system, through which the use of modern education technology is regulated.
- A national information system must also be developed, to include an information database that monitors and follows the use of information technology in education and distance learning.
- Special training courses should be provided for the teaching staff, to enable them to use local and international distance learning platforms.
- Linking educational institutions to high-flow Internet, which helps in the quality of the school's digitization.
- Working on conducting training courses and study days for teachers, pupils, parents, in order to sensitize them on the importance of acquiring digital skills.

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