

## The level of implementation of international professional standards by primary school teachers in Constantine.

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### Abstract:

This study aimed to identify the application of international professional standards by primary school teachers working in educational institutions in the state of Constantine, as well as to measure the differences between teachers in the extent of their performance of these standards according to demographic variables (age, gender). Academic qualification, work experience, degree). The study relied on the analytical descriptive approach, as (100) questionnaires were distributed to them.

The study found a high level of implementation of international professional standards by primary school teachers working in the state of Constantine. It also showed that there were no statistically significant differences in the extent to which primary school teachers applied international professional standards in the state of Constantine, and a series of recommendations were reached that enable policy makers who hire teachers to benefit from this field.

**Keywords:** Teachers, International professional standards, Constantine, primary school, Educational Institutions.

### Introduction:

The educational administration is considered as a key driver of the educational process so as to achieve the goals and aspirations of societies, as well as to improve their quality of education, by investing their capacities in human resources. Besides, the success or failure of educational institutions affects all institutions of society, as the teacher represents the primary element on which the educational process is based. Therefore, he must enjoy good psychological and physical health, and an integrated and balanced personality that reflects an acceptable level of satisfaction with his work, as his work relationships with colleagues, students and his attitudes towards his professional work are directly mirrored in his professional performance and the level of his students learning.

Whereas, in the teacher's daily life, there are many psychological and social pressures imposed by the nature of his profession, including the difficulties and challenges that may affect him, his professional performance, and his psychological health (Qawasmeh 2022, 196)

Thus, interest in developing teacher-training programmes and their professional standards has become one of the most important contemporary global trends, which are receiving increasing attention, despite the difference in the degree of emphasis in development processes according to the societal context from one country to another. Emphasis in professionally qualifying teachers became a political priority in most countries of the world. In developed countries, attention is increasing to ensure the availability of the required numbers of teachers to meet the growing retirement cases while guaranteeing the quality of numbers. In developing countries, we find an increasing need to raise the level of teacher qualifications.

In this context, the Development Authority of the Teaching Profession and the Accreditation Authority for Teacher Education in the United States of America engaged to develop international professional standards for teachers, principals, and students. These standards focused on teaching, learning and leading the digital age, including changes and transformations that contribute to promoting collective responsibility to improve students' achievement and evaluating the learning needs of the student, teachers and the school.

As well as determining learning goals for teachers, achieving the teacher's educational goals through the implementation of continuous learning strategies, working to provide the necessary training to support the transfer of new knowledge and skills to the classroom. and evaluating the effectiveness of professional development, in addition to identifying ongoing improvements in teaching, student and teacher learning.

In this regard, the educational actors in Algeria saw the teacher's need for standards that measure the level of his performance and the quality of teaching practices and judge them. So that the teacher can develop them to the ideal image that helps him in professional growth.

### **Study problematic:**

Through what has been addressed, the problematic of the study can be formulated in its attempt to answer the following two questions:

- What is the level of implementation of international professional standards by primary school teachers working in Constantine State?
- Are there significant differences in the opinions of the sample about the implementation of international professional standards by primary school teachers working in Constantine state due to demographic variables (Gender , age, educational qualification, work experience, grade ) ?

### **Study hypotheses:**

Based on the study problematic and sub-questions, and as initial answers to them, the following hypotheses were put forward:

- **The first hypothesis:** Primary school teachers working in the state of Constantine do not implement international professional standards;

- **The second hypothesis:** There are no significant differences in the opinions of the sample about the implementation of international professional standards by primary school teachers working in the state of Constantine due to the demographic variables (Gender, age, educational qualification, work experience, and degree).

### **Study importance:**

The importance of the study lies in an attempt to glance at the level of implementation of international professional standards by primary school teachers working in the state of Constantine after the increased interest in the latter because of its significance in raising the performance of the teacher and enhancing the educational-learning process. In addition to contributing to submit proposals for teacher training programs in the light of all international standards and modern trends, by providing a theoretical and practical framework, and taking the necessary solutions and steps commensurate with the changes taking place in the world in order to achieve the desired goals.

### **Study objectives:**

The study aims at:

- Viewing the contemporary literature directly related to the study and identifying its intellectual contents in order to build a theoretical framework that contributes to the formulation of the hypotheses of the study;
- Identifying the level of implementation of international professional standards by primary school teachers working in the state of Constantine;
- Identifying the statistically significant differences between the means of the estimates of the level of implementation of primary school teachers working in the state of Constantine to international professional standards;
- Providing appropriate recommendations based on the results reached, which will be directed to educational actors in particular.

### **Study delimitations:**

Since the aim of this study is to identify the level of implementation of international professional standards by primary school teachers working in the state of Constantine, the study delimitations are as follows:

- Objective delimitations: represented in the variable of international professional standards for teachers;

- Human delimitations: represented in a sample of primary education teachers in Constantine, its size of is (100) single;
- Temporal delimitations: This study was conducted between October 2022 and January 2023;
- Spatial delimitations: This study was limited to educational institutions operating in the state of Constantine.

### **Study Approach:**

In order to achieve the study objectives, we relied on the analytical descriptive approach supported by the case study method, which is based on the systematic description of the facts and characteristics related to the problematic under study as well as the analysis of the content in a scientific and accurate manner to study the relationship in the hypotheses of the study. The SPSS program will be used to analyze the data and draw conclusions.

### **Previous studies:**

The researchers obtained a number of previous studies related to the subject of the current study, and they were presented according to their chronological order from oldest to newest, as follows:

A study of (Lewis 2015) aimed at identifying the extent to which teacher training programs in the United States of America provide educational technology standards (ISTE) for student teachers in the study curricula. The study relied on the mixed approach to study the relationship between student teachers and ISTE standards and the role of technology in teacher training programmes. The questionnaire and interview tools were used to collect the data. The sample consisted of 86 individuals. The study concluded that student teachers possess minimal awareness of ISTE standards, which indicates their ability to independently explore technology and use technical skills when required.

A study of (Al- Momani 2018) aimed at identifying the degree of effectiveness of the training and development program based on the national standards for teacher professional development among secondary vocational education teachers. To achieve the aim of the study, a questionnaire was used for the national standards for professional development of teachers, which consisted of seven criteria, namely (education, special academic and pedagogical knowledge, planning for teaching, implementing teaching, evaluating student learning, self-development, and ethics of the teaching profession). The sample of the study consisted of (67) male and female teachers studying in the vocational secondary education stage in the private schools of the Irbid Education Directorate. The results of the study showed that the degree of effectiveness of the training and development

program based on the national standards for the professional development of teachers among vocational secondary education teachers was average, and in all fields except for each of the academic and special pedagogical knowledge, the degree of effectiveness was low.

The study (Al-Khalidi 2019) that aimed to identify the degree to which male and female teachers of the first three basic grades implement international professional standards in the North-western Badia District in Mafrq Governorate from their own point of view. To achieve the objective of the study, the descriptive survey approach was relied upon by distributing a questionnaire to (130) male and female teachers studying the first three basic grades in government schools affiliated to the Directorate of Education of the North-western Badia District in Mafrq Governorate. The results of the study showed that the total degree of implementation of the teachers of the first three basic grades to the international professional standards in the North-western Badia District in the Mafrq Vocational Governorate

The study of (Almisad 2020) which aimed at identifying the degree of achievement of the International Society for Education (ISTE) standards among pre-service teachers at the College of Basic Education in Kuwait. A questionnaire was used, and the study sample consisted of (283) pre-service teachers. The study found that the sample had positive perceptions about the extent to which they achieved ISTE standards.

The study of (Ayad et Ajrami 2020) that endeavoured to identify the degree of implementation by teachers and students of the standards of the International Society of Technology in technical colleges in Palestine, where (257) questionnaires were distributed, as (71) were for teachers and (186) were for students. The study concluded that the degree of implementation of the standards of the International Society of Technology among the respondents in general was low. The study recommended holding training courses and scientific seminars for teachers and students to familiarize them with these standards and encourage them to adopt them.

The Study of (Kimm, et al. 2020) aimed at identifying the level of current technical competence of student teachers in teacher training programs at a university in Southern California in the United States of America. The study sample consisted of (242) individuals in special education who participated in an electronic questionnaire to evaluate themselves. The questionnaire was developed based on ISTE standards. The study reached recommendations on how to reform the curricula of teacher training programs to support student teachers in acquiring the technological proficiency they need in the field of education.

### **Commenting on previous studies:**

The current study focuses on the level of implementation of international professional standards by primary school teachers working in the state of Constantine. The researchers also benefited from the field of study methodology. However, what distinguishes these studies from their peers of previous studies is that their vocabulary was implemented to primary stage teachers working in the state of Constantine in Algeria as a society and a sample for the study.

### **Study concepts:**

Determining concepts is one of the significant issues in academic research, because there are many concepts that diverge in their meanings. Therefore, the researcher must define the contents of these concepts in order to remove confusion and ambiguity among the reader. The concepts of the study have been identified as follows:

- The International Society for Technologies in Education: Founded in 1979, the International Society for Technologies in Education is a global, non-governmental, non-profit organization of leaders in educational technology worldwide that aims at raising the level of performance of teachers, learners, and leaders in technology to improve teaching and learning (ISTE 2021)
- International Professional Standards: is a set of educational competencies that a teacher must acquire and practice in the education process. It was issued by the Teacher Accreditation Commission in the United States of America according to the California Document for the Teaching Profession (Al-Khalidi 2019, 309) Accordingly, the standards for teachers issued by the International Association for Technology in the field of education are among the most efficient ones approved in the United States and in many parts of the world and have become a reference on the basis of educational programs and plans. The standards of the International Association for Technology in the field of education are formed;
- The teacher: is considered as the most significant element of the educational system. He is the one who educates the learners as the future human image of population. Therefore, it was necessary to raise the level of his performance to the required level according to specific criteria, especially since the characteristics of the modern teacher have become closer to the characteristics of the educator, planner, contemplator, researcher or thinker. or the leader (Shaheen and Ayman 2021, 16)

- Planning for teaching: The teacher must effectively plan and manage the teaching process, based on his knowledge of the scientific subject of the specialization, in addition to his knowledge of the learners, the local community, and the objectives of the curriculum.
- Understanding and organizing learners' learning content: The teacher understands how to provide educational opportunities for learners to help them support their self- and mental development, in addition to understanding the difference between learners in their learning methods in order to take into account the diversity of their cultural backgrounds and must use teaching strategies that help learners develop critical thinking and problem-solving skills.
- Creating a learning environment: The teacher uses his understanding of the motivation and behaviour of individuals and groups to create a learning environment that encourages positive interaction, active involvement in learning, and supports self-motivation for achievement.
- Engaging and supporting learners' learning: the teacher uses knowledge of verbal and non-verbal communication methods and modern communication techniques to support constructive inquiry and research while enhancing teamwork and collaboration;
- Learners' evaluation: The teacher must understand and use formal and informal evaluation strategies to evaluate learners' learning and ensure their continued intellectual, social and collective development;
- Professional growth: The teacher must be a practitioner of thinking, reflection, and contemplation, in the sense that he constantly reviews and evaluates the effects of his decisions and actions on others.

### **Study field**

In order to answer the raised problematic, and test the hypotheses in the field, we conducted a field study involving a group of educational institutions operating in Constantine, the questionnaire was used to collect the required data as follows:

### **Study population and sample**

In order to achieve the objectives of the study, the researchers selected a sample of primary education teachers working in the state of Constantine, because it was not possible to conduct a comprehensive survey due to the large size of the research population, and accordingly, a random sample was selected, the size was determined according to Stephen Thompson's formula with (385)

individuals, where the questionnaires were distributed to them and (100) questionnaires were retrieved at a rate of (76%), and after examining the questionnaires, however (22) questionnaires were excluded for not meeting the conditions required to answer the questionnaire, thus the number of questionnaires subject to study is (78) questionnaires.

The researchers also designed a questionnaire as a tool for collecting primary data, which was used as a tool for the study, and for the purpose of its writing, it was based on the literature of previous studies. It was divided into two parts, the first included the general characteristics of the study population and consisted of 6 statements (gender, age, academic qualification, years of experience, degree). As for the second section, it included the international professional standards for teachers according to the American International Association for Technology, which consisted of (35) paragraphs distributed over six axes: Axis (1) engaging and supporting learners in learning, Axis (2) creating a learning environment, Axis (3) understanding and organizing Learners' learning content, axis (4) lesson planning, axis (5) evaluating learners' learning and axis (6) professional development.

The scale scores were divided according to the five-point Likert scale into (5) grades (grade 1 corresponds to very low, grade 2 corresponds to low, grade 3 corresponds to average, grade 4 corresponds to large, and grade 5 corresponds to very large).

Below we attempt to provide a description of the personal characteristics of the study sample according to the following:

**Table No. 01: Distribution of the study according to personal data**

	<b>Variable categoris</b>	<b>Frequency</b>	<b>Percentage</b>
<b>Gender</b>	Male	11	14.1
	Female	67	85.9
<b>Age</b>	30years and under	25	32.1
	31to 40 years	38	48.7
	41to 50 years	11	14.1
	over 50 years	4	5.1
<b>Qualification</b>	Secondary	5	6.4
	Undergraduate	64	82.1
	post-graduation	9	11.6
<b>Experience</b>	years and under 5	25	32.05
	06to 15 years	40	51.30
	16to 25 years	8	10.25
	over 25 years	5	6.4
<b>Total</b>		78	100



**Source:** Prepared by researchers based on the outputs of SPSS 25.

It is noted from the above table related to the characteristics of the studied sample that the percentage of female responses is greater than that of males, estimated at (%85.9) It is clear from the table that the study sample individuals aged 31-40 years are the most numerous, as their percentage was (%48.7) .This stage indicates maturity and conscious thinking among them. As for the educational qualification variable, the highest percentage was for undergraduates, as their percentage was (82.1%). This is a positive indication that the members of the study sample are those with scientific and practical competencies, which enable them to understand what surrounds their economic, cultural and social environment as well as qualify them to answer the questionnaire correctly. It is also noted from the table that (51.3%) of the study sample have experience of more than 15-06 years.

### **Statistical processing methods**

For the purpose of verifying the validity of the study hypotheses, statistical tools were used, by relying on the percentages of frequencies to describe the study sample, and to give importance to the study variables, the following were relied upon:

- Cronbach's alpha correlation coefficient to ensure the reliability of the study tool;
- Conducting the Kolmogorov-Smirnov Z test to see whether the study data follow a normal distribution or not. It is necessary to test hypotheses because most parametric tests require that the data distribution be normal.
- Frequencies and percentages to describe the characteristics of the study sample;
- Pearson correlation coefficients to ensure the validity of the internal consistency between the statements and its domain;
- Means and standard deviations to identify the extent to which teachers' selection criteria are implemented according to the American International Association of Technology, as the aim is to give an explanatory analysis of the extent of the respondents' answers;
- Pearson correlation coefficients to ensure the validity of the internal consistency between the statements and its domain;
- One simple T-test: The one-sample test is mainly used to compare the calculated mean with the predetermined hypothetical mean;
- One Way Analysis of Variance (ANOVA): is used to test the study hypotheses related to the statistical differences between the means of responsible marketing among the study sample

**Test the validity and reliability of the tool**

**Extracting the validity of the construction through the correlation between the total mean of the tool and the axes**

The Pearson correlation coefficient was used in order to verify the validity of the construction between the means of the axes and the total mean of the tool, as shown in the following table:

**Table No. 02: Pearson correlation coefficients for the axes and the tool as a whole**

Statement		Axis (1)	Axis (2)	Axis (3)	Axis (4)	Axis (5)	Axis (6)	tool as a whole
Tool	Pearson coefficient	0.619**	0.66**8	**0.791	0.74**8	**0.702	**0.735	1
	significance level	0.000	0.000	0.000	0.000	0.000	0.000	

**Source:** Prepared by researchers based on the outputs of SPSS 25.

It is clear from the above table that the value of Pearson's correlation coefficients is good for the axes and the tool as a whole, and the correlation coefficients are significant at a significant level of  $0.05 \geq \alpha$ .

**Reliability of the study tool**

The Cronbach alpha coefficient method was used to verify the reliability of the questionnaire, as shown in the following table:

**Table No. 03: Coefficient of reliability of the axes and the study as a whole (Cronbach's alpha)**

Statement	Cronbach's alpha coefficient
First axis	0.785
Second axis	0.855
Third axis	0.843
Fourth axis	0.714
Fifth axis	0.839
Sixth axis	0.715
Study as a whole	0.848

**Source:** Prepared by researchers based on the outputs of SPSS 25.

Cronbach's alpha coefficient was calculated as a coefficient of total reliability and the correlation of the statements as a whole. Cronbach's alpha coefficient was also calculated for each axis, as the reliability coefficient for all axes exceeded (0.70), as the overall coefficient reached (0.848), which indicates that the questionnaire has a high degree of reliability. This is what the researchers are assured of implementing it to all members of the study sample.

### The results of the descriptive analysis of the study variables

This part includes a detailed analysis of the questionnaire paragraphs, which numbered (35) paragraphs, where the researchers used percentages, means, and standard deviations in the analysis. Where we work on calculating the means for the statements and for the total of the seven axes, and using the five-point Likert table, we get the directions for the seven axes.

**Table No. 04: The general level of criteria for selecting teachers according to the American International Association**

Variable	Mean	standard deviation	Implementation level
Axis (1) Involving and supporting learners in learning	4.30	0.411	High
Axis (2) Creating a learning environment	4.07	0.346	High
Axis (3) Understanding and organizing learners' learning content	4.21	0.355	High
Axis (4) lesson planning	4.25	0.384	High
Axis (5) Evaluation of learners' learning	4.15	0.450	High
Axis (6) professional growth	4.11	0.531	High
Global professional standards	4.22	0.293	High

**Source:** Prepared by researchers based on the outputs of SPSS 25.

It is clear from the previous table that the mean level of implementation of international professional standards by primary stage teachers working in Constantine state was (4.22) with a standard deviation of (0.293). This is due to the teachers' awareness of the benefits derived from this concept, as the implementation of international professional standards has become a necessity imposed by modern trends in education. Also a modern strategy endeavours to promote the educational and learning process.

### Test the study hypotheses

- **Testing the first hypothesis:** "Primary stage teachers working in the state of Constantine do not implement international professional standards."

The hypothesis is based on a comparison of the mean of the answers about the level of primary education teachers' implementation of the criteria for selecting teachers according to the American International Association with the mean of tool (3), for which the (t) test was used in the case of one sample or what is known as (One sample t-test).

**Table No. 05: T-test in the case of a single sample**

Statement	Test Value = 3					
	Views	Mean	Standard deviation	The calculated (t) value	Freedom degree Df	significance level
Paragraphs of the first hypothesis	78	4.22	0.293	36.815	77	0.000

**Source:** Prepared by researchers based on the outputs of SPSS 25.

We note from the previous table that the mean of the sample's answers regarding the level of implementation of the primary stage teachers of international professional standards amounted to (4.22) with a standard deviation of (0.293), and that the calculated (T) value (36.815) is statistically significant at the level of  $0.05 \geq \alpha$  between the real and theoretical means. Thus, the null hypothesis is rejected and the alternative hypothesis is accepted, which states, "Primary stage teachers working in the state of Constantine implement international professional standards".

- **Testing the second hypothesis:** "There are no significant differences in the opinions of the sample about the implementation of international professional standards by primary school teachers working in the state of Constantine due to the demographic variables (gender, age, educational qualification, work experience, and degree)".

To test this hypothesis, the ANOVA One Way test was used, given that the distribution is normal, which was confirmed by the Colmgrove-Smirnov test, which indicated that the value of the significance level for each section of the test results (axes) was larger than 0.05 ( $0.05 \geq \text{Sig}$ ), This indicates that the data follows a normal distribution, which can be illustrated in the following table:

**Table No.06: One-Sample Kolmogorov-Smirnov Test**

Statement	Value Z	significance level
First axis	0.160	0.000
Second axis	0.173	0.000

Third axis	0.150	0.000
Fourth axis	0.129	0.000
Fifth axis	0.137	0.001
Sixth axis	0.181	0.000
Study as a whole	0.115	0.013

**Source:** Prepared by researchers based on the outputs of SPSS 25.

A One-Way ANOVA test was used for the variables of gender, age, educational qualification, work experience, and degree. Here, the hypothesis is null if the significance level is less than or equal to 0.05.

**Table No. 07: Differences in the means of international occupational standards**

Global professional standards	F	Sig
Gender	0.151	0.698
Age	2.742	0.102
Qualification	0.161	0.689
Work experience	0.603	0.440

**Source:** Prepared by researchers based on the outputs of SPSS 25.

It is clear from the above table that there are no significant differences in the opinions of the sample about the implementation of international professional standards by primary school teachers working in the state of Constantine due to demographic variables (gender, age, educational qualification, work experience, degree), and therefore the null hypothesis is accepted and the alternative hypothesis is rejected.

### **Conclusion:**

The issue of teachers' commitment to international professional standards has become one of the recent trends that have sparked controversy among the scientific and academic circles, as these standards are considered a criterion for excellence and superiority; this is demonstrated by improving the quality of the educational and learning process.

In the following, we will explain the most significant results of the study, with an attempt to present some recommendations that can be beneficial.

### **Results :**

- The results of the study showed that the level of implementation of international professional standards by primary school teachers working in the state of Constantine came

to a high degree, as these results are consistent with the study of (Al- Momani 2018) and the study of (Al-Khalidi 2019) and the study of (Almisad 2020). This includes the realization of teachers that international professional standards are of great importance in raising their performance as a source that can be used as a guide in training a teacher who is compatible with the new vision of his role in the teaching and learning process.

- The results of the study indicated that there were no significant differences regarding the implementation of criteria for selecting teachers according to the American International Association of Technology due to demographic variables (gender, age, educational qualification, work experience, degree); This indicates that teachers feel the importance of achieving international standards, and the significance of their role, as they are the pioneers of education in their schools.

### **Recommendations:**

The researchers came out with a set of recommendations and proposals to be presented to stakeholders and relevant authorities to be worked on and adopted to contribute to the implementation of international professional standards. These recommendations are:

- The necessity for the relevant ministry to make the essential efforts to issue a guide for teachers that contains a mechanism for employing and integrating international professional standards for education;
- The necessity to hold advanced and specialized meetings and workshops for teachers urging them to implement the standards of international professional standards, because the latter still needs a lot of supervision and maturity to pave the way for adopting its implementation effectively;
- The need to spread the culture of teaching standards included in the standards of the International Association for Educational Technology and their importance in the education community through presenting successful experiences of how to achieve and benefit from the standards;
- The need to pay attention to teacher training programs in their training institutions in Algeria in order to achieve comprehensive quality in education;
- The need to conduct more prospective studies in the field of teacher recruitment in accordance with international professional standards for education from the point of view of principals and administrative staff.

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