

Cognitive Competencies of Secondary School Teachers in Jordan from their Point of View

Mohammad O. Al-Momani, Insaf G. Alrabadi

Department of Educational Sciences, Ajloun University College, Al-Balqa Applied University, Salt, Jordan

ABSTRACT

The study aimed to identify the level of cognitive competencies for secondary school teachers in Jordan from the teachers' point of view and their relationship to gender and educational qualification variables. The descriptive approach was used, and the study sample consisted of (210) male and female teachers in the first semester of the academic year (2021-2022), in addition to using the questionnaire as a study tool. The study concluded that the level of cognitive competencies for secondary school teachers in Jordan was high, as the percentage of response to it reached (76.4%). The results also showed that there were no statistically significant differences in the cognitive competencies according to the gender variable (males, females), in addition to the presence of statistically significant differences in the cognitive competencies of teachers according to the educational qualification variable and in favor of graduate degree holders (Masters and Ph.D.).

Keywords: Cognitive Competencies, Competencies, Secondary School Teachers.

Journal of Teacher Education and Research (2022). DOI: 10.36268/JTER/17103

INTRODUCTION

Human development is the main artery on which society depends in feeding all its fields, because human resources are the most important resources that can build the nation. Also, the human element represents the best resource for organizations, and as experts say, "If it is easy to own money, it is difficult to own qualified individuals, because the human element is what leaves movement and life in work sites (Matar, 2004)

Since we live today in the era of all kinds of knowledge development, the impact of which is reflected on education, which is the path of progress and advancement for any society, and if the teacher represents one of the pillars of the educational process, the teacher's preparation must keep pace with the development in education, and this calls for educational institutions interested in preparing the teacher To reconsider the teacher preparation programs and the educational approaches upon which their preparation is based, add new ones to them, and work to improve and develop the existing ones.

There are many approaches to teacher preparation, including the competency-based educational approach, which is one of the most common and widespread trends in teacher preparation. achieve their goals.

Given the importance of the teacher's role in the classroom; Educational institutions have been keen to rehabilitate and train him to carry out the tasks entrusted to him, whether before service through programs and courses offered in colleges and universities or during service through training courses with the aim of developing many of his skills so that he possesses a set of cognitive competencies that he needs to transfer educational experiences learning. To become a classroom leader, organizer of the learning environment, and designer of teaching (clinics and clinics, 2013)

The change in the teacher's role has been linked to social, political, cultural, technological, and educational change. The teacher's task is no longer to prepare information and present it to students. Rather, students must be trained to access sources of knowledge, whether in the traditional way such as books or modern ones such as the Internet, and the educational content of

Corresponding Author: Mohammad Omar Al-Momani, Educational Sciences Department, Ajloun University College, Al-Balqa Applied University, Salt, Jordan, e-mail: m.o.e.m@bau.edu.jo

How to cite this article: Al-Momani, M.O., Alrabadi, I.G. (2022). Cognitive Competencies of Secondary School Teachers in Jordan from their Point of View. *Journal of Teacher Education and Research*, 17(1): 14-19.

Source of support: Nil

Conflict of interest: None

this knowledge must be emphasized. (Veal, 2004).

Study Problem and Questions

Teaching in its modern sense aims at organizing learning and facilitating its occurrence, and not merely transferring information from the prescribed textbooks to the students' minds to get them to memorize and memorize them. Therefore, organizing learning and achieving its goals requires prior planning and creative work from the teacher, and it is imperative that the learning environment includes a set of elements Variable, renewable goals, and different learning needs.

And since the teacher represents an important position in the educational system, he is an effective and influential element in achieving the goals. The teacher is considered the cornerstone of reform and development. Rather he is considered the backbone of the educational process, and because the teacher is the backbone of the educational and educational process. He is the main driver that cannot be dispensed with in any An educational or educational system, no matter how many sources of knowledge there are, as it remains fully responsible for the experiences it provides to learners, and because the issue of teacher preparation is considered a special priority because it is the issue of education itself, and because the quality of future generations who are the future of the educational and educational process depends on this issue. Efforts to improve any aspect of the educational process cannot lead to the required scientific progress unless you begin to prepare the teacher well.



And because teaching skills are the first basis that helps the teacher to practice the tasks of his profession, through which it is necessary to reconsider the teacher training programs and prepare them in their scientific faculties, and pay attention to the development of an assessment based mainly on competencies so that student teachers benefit from them scientifically.

Based on the foregoing, the current study seeks to answer the following questions

- What is the level of cognitive competencies for secondary school teachers in Jordan from their own point of view?
- Are there any statistically significant differences at the level of significance? ($\alpha = 0.05$) in the level of cognitive competencies of secondary school teachers in Jordan from their own point of view, which is attributed to the gender variable (males, females)?
- Are there any statistically significant differences at the level of significance? ($\alpha = 0.05$) in the level of cognitive competencies for secondary school teachers in Jordan from their own point of view, which is attributed to the educational qualification variable (bachelor and higher diploma, postgraduate studies (Masters and PhD))?

Importance of Studying

The importance of the study lies in:

- Contribute to the development of the teaching performance of male and female teachers, which in turn is reflected in the development of the skills and knowledge of future teachers in their various scientific colleges.
- Contribute to the consideration of cognitive competencies as important foundations for building programs for the development, preparation, and development of the performance of male and female teachers.
- Considering the list of cognitive competencies as introduction determinants for developing the performance of male and female teachers in their university science faculties.

Objectives of the Study

The study aims to:

- They are identifying the cognitive competencies of secondary school teachers in Jordan.
- To identify if there are statistically significant differences in the cognitive competencies of male and female secondary school teachers in Jordan that are attributed to the gender variable (males, females).
- To identify if there are statistically significant differences in the cognitive competencies of secondary school teachers in Jordan that are attributed to the educational qualification variable (bachelor and higher diploma, postgraduate studies (Masters and Ph.D.))?

Idiomatic and Procedural Definitions of the Study

Competencies

Al-Masry (2010) calls it as a set of knowledge, concepts, skills, and attitudes that a teacher acquires as a result of his preparation in a specific program during and before service.

And you know her (Dunya, 1984) as the teacher's possession of the necessary knowledge, skills, and attitude to reach an acceptable level of performance.

Maree (1983) calls it as the ability to do something with a certain level of performance, which is efficient and effective.

Elam knows it (Elam, 1975) as the set of knowledge, skills, and attitudes necessary to organize the learning process.

Houston knows it (Houston, 1974) as the knowledge, skills, and methods believed to be essential to the performance of the functions of a teacher.

Hoyt knows it (Hewitt, 1978) is a set of skills, knowledge, methods, and behavior patterns that teachers practice consistently and continuously during teaching.

Cognitive Competencies

According to Al-Amri, 2016, it is the teacher's possession in middle and secondary schools of a set of skills, information, experiences, and activities that are reflected in their teaching in the classroom.

He knows her (Hamadna, 2006) as the set of different information, experiences, skills, activities and behavior patterns possessed by teachers, which they are supposed to perform during teaching.

It is known by (Al-Sayeh and Abdel Moneim, 2005) that it is a set of knowledge, skills and attitudes that direct the teaching behavior of male and female teachers to help them perform their work in the classroom, theoretically and in practice, with a certain level of empowerment, and it can be measured and observed with agreed-upon standards.

And he knew (Baqir, 1991) that they are the qualities, characteristics, skills, and attitudes that the teacher is supposed to perform and are reflected on his performance in educational situations that are characterized by a kind of stability.

The researchers define it procedurally: it is the degree to which secondary school teachers possess cognitive competencies through their answers on the scale prepared for this purpose.

Secondary School Teachers

They are all scientifically qualified teachers from one of the various colleges and universities who are specialists in their scientific fields and who are officially appointed in the schools of the Jordanian Ministry of Education for the purposes of teaching students in the first secondary and second grades.

Previous Studies

Several studies related to the subject of the current study were referred to, which dealt with the issue of competencies for teachers of all kinds and forms, which were as follows:

According to Al-Momani, 2019, the teaching competencies of teachers of vocational education in primary schools affiliated to the Directorate of Education in Ajloun Governorate in the Hashemite Kingdom of Jordan in competencies (implementation, and teaching methods), where the researcher used the descriptive approach in addition to using the questionnaire, which consisted of (26). A paragraph as a tool for the study, and the study population may consist of all teachers of vocational education in Jordan, who numbered (115) teachers. The sample of the study consisted of (50) teachers. %) is ahead of the adequacy of implementation, which was by (71%) and significantly for each of them.

The study also aimed (Youssef, Bin Ghaith and Al-Wukhi, 2018) to identify the teaching competencies of physical education teachers in special education schools in the State of Kuwait, where the comparative descriptive approach was used, and the study sample consisted of (116) male and female teachers, in addition to using the questionnaire as a tool for the study. He was weak.

The study also aimed to (Al-Khamshi, 2017) to identify the teaching competencies necessary for teachers of Sharia sciences in the

primary stage, where a notecard was used as a study tool. The study sample consisted of (40) teachers. The study concluded that the general average of the degree of availability of competencies was at a medium degree in addition to the absence of significant differences Statistically among teachers in the degree of availability of teaching competencies, which is attributed to the variable number of years of experience.

The study also aimed to (Al-Hashani,2016) to identify the teaching competencies and the degree of their availability among kindergarten teachers in the city of Misurata in Libya, where the descriptive survey method was used. The study sample consisted of (40) female teachers. The questionnaire and scientific observation were used as tools for the study. The study concluded that kindergarten teachers do not have a high degree of teaching competencies and the presence of statistically significant differences in the degree of practicing some teaching competencies among female teachers due to the academic qualification and the number of years of experience.

It also aimed to study (Khazali and Momani,2010) to identify the extent to which the teachers of the lower secondary stage in the private schools of the Ministry of Education for the first Irbid region in Jordan possess teaching competencies from their point of view in light of the variables of academic qualification, years of experience, and specialization. The study sample consisted of (168) female teachers working in (30) private schools in the Irbid governorate, and the questionnaire was used as a study tool, which included (38) teaching adequacy. The results of the study showed that the level of teaching competencies possessed by female teachers was to a large extent, and the results showed that there were statistically significant differences in the degree of female teachers' possession of teaching competencies due to the variable years of teaching experience and in favor of female teachers with more than (more than 6 years).

The pharma study also aimed (Varma, 2007) aims to improve the quality of primary education by monitoring the professional competencies of comprehensive education teachers, as the results of the study indicated the need to train teachers to use teaching methods based on the needs of the learner and to employ whatever infrastructure is available to them in their educational institutions, and to work on Subjecting novice teachers to in-service training programs, and providing them with skills, strategies, and competencies that would help them provide learners with skills that would enable them to satisfy their needs in their own way.

METHOD AND FIELD PROCEDURES

Study Approach

The descriptive approach was used in this study, and this approach aims to determine the current state of the objects of the study, and then work on describing them.1992), and the descriptive approach is not limited to describing the phenomenon and collecting

information and data. It helps in understanding and developing reality (Al-Assaf, 1995).

Study Community

The study population consisted of all secondary school teachers in government schools affiliated to the Directorate of Education in Ajloun Governorate, whose number is 987 teachers are distributed among all secondary schools affiliated with the Directorate.

The Study Sample

The study sample consisted of (210) male and female teachers who study students in the second stage for the first secondary and second secondary grades and in all different subjects in the first semester of the academic year (2021-2022 AD), who was chosen by a simple random method, and the following Table 1 shows the study sample according to its variables:

Study Tool

The study tool used in the study (Al-Momani et al.,2019) due to its relevance and the nature of the current study, which consists of (25) paragraphs that measure the cognitive competencies of teachers.

The response was determined according to the five-point Likert scale.

very high score 80% and above

A high degree 70% - 79.9%

Medium 60% - 69.9%

low score 50%- 59.9%

very low score 50% or less.

The Validity of the Study Tool

In light of the objectives of the study and verification of the wording of the paragraphs, the tool was presented to a number of arbitrators specialized in the disciplines of curricula, teaching, educational psychology, measurement, and evaluation in the various Jordanian universities, whose number is (10) An arbitrator, to express an opinion on the validity of the paragraphs of the tool, the language, and any other modification, whether it was a merger, deletion or modification of these paragraphs.

Stability of the Study Instrument

To calculate the reliability coefficient, the researcher used the test and retest method by applying the test to a sample of 30 male and female teachers from the study community. Still, from outside the study sample, then the test was repeated again with a time period of 10 days from the first application. Then the correlation coefficient between the first and second test was found, which amounted to (0.91), which is considered acceptable and statistically high.

Statistical Treatments Used

Table 1: Description of the study sample.

Percentage	The number	Variables	
50%	105	male	Sex
50%	105	female	
100%	210	Total	
58%	121	Bachelor's degree and higher diploma	Qualification
42%	89	Postgraduate studies (Masters and PhD)	
100%	210	Total	



The following statistical treatments were used:

- Arithmetic averages.
- Percentages.
- Standard deviation.
- Cronbach's alpha stability coefficient.
- A t-test for independent groups.

PRESENTATION AND DISCUSSION OF THE RESULTS

Results related to the first question that is the level of cognitive competencies for secondary school teachers in Jordan from their own point of view?

To answer this question, the arithmetic averages and percentages of the level of cognitive competencies for male and female secondary school teachers in Jordan were extracted, arranged in descending order according to their averages (table 2).

The level of cognitive competencies for secondary school teachers in Jordan was very high for paragraphs (1-13), where the percentage of response to it reached between (81% - 97%) and it was high for paragraphs (14-18), where the percentage of response reached It ranged between (72% - 78%), and it was medium for paragraphs (19-24), where the percentage of response to it reached

between (60%-69%), and it was low only for paragraph No. (20), where the percentage of response to it reached between (58%), as for the cognitive competencies on the total degree, they were high, as the percentage of response to them reached (76.4%).

Results related to the second question, which reads: Are there any statistically significant differences at the level of significance? ($\alpha = 0.05$) in the level of cognitive competencies for secondary school teachers in Jordan from their own point of view, which is attributed to the gender variable (males, females)?

To answer this question, the arithmetic averages and standard deviations of the level of cognitive competencies for secondary school teachers in Jordan were extracted from their own point of view, which is attributed to the gender variable (males, females) (table 3):

It is clear from Table 3, the calculated "t" value is less than the tabular t value for the cognitive competency items for male and female secondary school teachers in Jordan, and this indicates that there are no statistically significant differences that are attributed to the gender variable (teacher).

The researchers attribute this result to the nature of the academic preparation and the nature of the fields in which teachers agree, and the nature of the curriculum and teaching courses are similar, as well as the components of the teacher's personality,

Table 2: Arithmetic averages and percentages of the level of cognitive competencies for male and female secondary school teachers in Jordan, arranged in descending order according to their averages

The level	Percentages	SMA	Cognitive competencies	
very high	97%	4.94	Presents the course material clearly and in a logical sequence	1
very high	96%	4.93	Using methods that take into account the principle of individual differences among students	2
very high	95%	4.93	Methods based on the principle of gradation from easy to difficult	3
very high	94%	4.92	Uses verbal and nonverbal cues	4
very high	94%	4.91	It considers and enhances good performance and corrects faulty performance	5
very high	93%	4.91	Encourage students to ask questions	6
very high	92%	4.90	Helping students solve their personal and social problems	7
very high	92%	4.90	Manage the time allotted for the session	8
very high	90%	4.83	Define the objectives of the lesson	9
very high	89%	4.74	Diversity in teaching methods	10
very high	88%	4.66	Prelude to the introduction to the lesson	11
very high	88%	4.42	Responding to students' questions	12
very high	81%	4.21	Familiarity with the subject matter and its various sources	13
High	78%	3.91	Using methods that gain students desirable habits for the benefit of the individual and society	14
High	76%	3.83	Provides a practical model in front of students during teaching	15
High	75%	3.80	Summarize class ideas	16
High	74%	3.75	Asks appropriate, thought-provoking and creative questions	17
High	72%	3.69	Diversity in the technological media used	18
medium	69%	3.61	Familiarity with teaching methods and methods and the mechanism of their use	19
medium	65%	3.53	Familiarity with the subject matter and its various sources	20
medium	65%	3.45	Movement between students during the explanation	21
medium	62%	3.40	Always presents new scientific material	22
medium	60%	3.37	Uses appropriate audio-visual teaching aids	23
medium	60%	3.20	Determines appropriate educational experiences and activities	24
low	58%	3.18	Connects his subject matter with other subjects	25
High	76.4%	4.20	The total score of the paragraphs	

Table 3: It shows the arithmetic averages and standard deviations of the level of cognitive competencies for secondary school teachers in Jordan from their own point of view, which is attributed to the gender variable (males, females)

Indication level	Value of "t"	Female		Male		Sex
		Deviation	Average	Deviation	Average	The field
Not significant	1.529	1.235	14.001	1.341	13.563	Cognitive competencies

Table 4: Arithmetic averages and standard deviations of the level of cognitive competencies for secondary school teachers in Jordan from their own point of view, which are attributed to the educational qualification variable (bachelor, high diploma, postgraduate studies (Masters and Ph.D.))

Indication level	Degrees of freedom	T	Standard deviation	SMA	Experience	The field
0.029*	36	1.99	0.59	2.99	Bachelor's degree and higher diploma	Cognitive competencies
			0.52	3.83	Postgraduate studies (Masters and PhD)	

appearance in a decent appearance, cooperation with teachers and staff, and taking responsibility, and all of this does not differ between teachers, and the mechanism of implementing lessons. And planning it with a quarterly and daily plan according to a mechanism and a unified model for all teachers, where teachers are committed to it, and therefore the differences were not statistically significant.

The results related to the third question, which reads: Are there any statistically significant differences at the level of significance? $\alpha = 0.05$) in the level of cognitive competencies of secondary school teachers in Jordan from their own point of view, which is attributed to the educational qualification variable (bachelor and higher diploma, postgraduate studies (Master and PhD))?

To answer this question, a t-test for two independent groups was used (Table 4).

It is clear from the previous Table 4, there are statistically significant differences on the cognitive competencies items for secondary school teachers in Jordan and in favor of those with academic qualifications in postgraduate studies (Masters and Ph.D.), where the researcher attributes. This results to the fact that academic qualification has a significant impact on the cognitive competencies in terms of the degree of scientific maturity and knowledge acquisition. Information and scientific research skills, his participation in seminars and scientific conferences at home and abroad, his permanent access to modern scientific periodicals, sources, and references, conducting scientific research, education skills and strategies, and the scientific and teaching background enjoyed by teachers holding graduate degrees (Masters and Ph.D.), so the differences in favor of graduate students are higher than those of those with higher degrees. Bachelors and Higher Diploma.

Also, the Jordanian Ministry of Education always seeks to provide all means of comfort and development for its cadres in the field, especially with the system of promotions and promotions, in which the teacher's scientific qualification plays the largest role. The secondary stage, which is considered one of the most important stages in the student's life, is pivotal. It separates the student between two important stages, the school stage and the university stage. Therefore, it requires the presence of a qualified teacher, with higher mental and scientific skills and abilities to be able to provide students with the necessary skills and knowledge, which are usually specialized.

CONCLUSIONS

In light of the study results, the researchers reached the following conclusions:

- It is clear from the results of the study that the overall result of cognitive competencies was high, as the percentage of response to them was (76.4%).

- There are no statistically significant differences in the cognitive competencies of male and female secondary school teachers that are attributed to the gender variable (males, females).
- There are statistically significant differences in the cognitive competencies of male and female secondary school teachers that are attributed to the educational qualification variable and for those with postgraduate studies (Masters and Ph.D.).

RECOMMENDATIONS

In light of the results of the study, the researchers recommend the following:

- Benefiting from the list of cognitive competencies reached by this study in the field of evaluating the performance of male and female teachers at the secondary stage in Jordan.
- Considering the list of cognitive competencies as determinants of the programs, preparation, development and evaluation of male and female teachers in their faculties in the various Jordanian universities.
- Increasing the attention and focus of educational supervisors by holding training courses for teachers regarding these teachers' possession and practice of cognitive competencies
- It was conducting more studies and addressing variables that were not addressed in the current study.

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