



Research Article

Measuring Professional Performance According To the Cooperative Learning Strategy among Art Education Teachers in the Preparatory Stage: Build and Apply

Heba Hussein Rashid*¹ and Dr. Hassan Taqi Taha²

^{1,2}University of Kufa, College of Education for Girls, Department of Educational and Psychological Sciences, Iraq

Corresponding Author: *Heba Hussein Rashid

DOI: <https://doi.org/10.5281/zenodo.10674310>

Abstract	Manuscript Information
<p>The research aims to measure professional performance according to the cooperative learning strategy among art education teachers in the preparatory stage in the General Directorate of Education in Al-Qadisiyah. The research problem in this topic lies in the current research to answer the following question: - What is the level of professional performance according to the cooperative learning strategy among art education teachers in the preparatory stage? Junior high? The researcher used the descriptive approach in the style of survey and comparative studies, and the research community reached (548) teachers of art education in the General Directorate of Education in Al-Qadisiyah, while the research sample reached (200) teachers of art education. The sample constituted a percentage of (36.49%) of the research community. A sample of (40) teachers was selected for the exploratory experiment, which constituted a percentage of (7.29%) from the non-research sample. Appropriate statistical methods were used for the current research. The researcher concluded that: Art education teachers enjoy a high and moral degree through their general possession of... For professional performance according to the cooperative learning strategy, and there are no statistically significant differences in professional performance depending on the variable years of service among art education teachers.</p>	<ul style="list-style-type: none"> ▪ ISSN No: 2583-7397 ▪ Received: 17-01-2023 ▪ Accepted: 10-02-2023 ▪ Published: 17-02-2024 ▪ IJCRM:3(1);2024:132-142 ▪ ©2024, All Rights Reserved ▪ Plagiarism Checked: Yes ▪ Peer Review Process: Yes <p>How to Cite this Manuscript</p> <p>Heba Hussein Rashid, Dr. Hassan Taqi Taha. Measuring Professional Performance According To the Cooperative Learning Strategy among Art Education Teachers in the Preparatory Stage: Build and Apply. International Journal of Contemporary Research in Multidisciplinary. 2024; 3(1): 132-142.</p>

Keyword: Professional performance, cooperative learning strategy and art education teachers.

Introduction

“Professional performance is one of the concepts and behavioral phenomena that has received great attention from writers and researchers, as a result of the role it plays in the success of educational institutions, especially in the modern era, where no institution, whether educational or otherwise, is capable of performing according to the level required of it; if not, its employees are committed to the goals of that institution, and they work as one team with harmony in order to improve professional

performance to reach the goals that the institution seeks” (Al-Ghoul, 2018, 41-42)^[1]. (Qarsas, 2019)^[17] points out that attention to improving the professional performance of the teacher is one of the most important successful policies for improving institutional performance, the survival of educational institutions, and their continuation in light of the intense competition witnessed in this era. “Professional performance occupies a special place within any institution, whether educational or non-educational, as it The final outcome of the

outcome of its activities, and then educational supervision and those responsible for it seek to improve the professional performance of teachers by providing capabilities, improving conditions, dealing with all factors that can affect the performance and productivity of teachers, and working to satisfy their professional needs and job requirements” (Qarsas (2019:123)^[17]. In order to achieve the desired learning goals, the learning and teaching process requires employing a number of organized and effective procedures, including choosing appropriate teaching methods and methods in the art education lesson that saves time and effort, and leads to effective learning among students. Academic interaction between students in the lesson takes place in several forms, the most important of which is positive dependence. Mutual learning is called the cooperative learning method, in which the student’s goals meet the goals of his colleagues in the group, and their goal is to reach the achievement of a common goal, so that the relationship between the student’s goals and his colleagues’ achievement of their goals is a positive relationship. Cooperative learning is one of the educational methods that was referred to a long time ago, and the concept of learning refers to Collaborative refers to classroom techniques in which students work in small groups consisting of (4-6) members, and each group accomplishes specific tasks to achieve a specific goal, so this strategy is applied in two ways. The first is for the teacher, as he carries out his roles in order to achieve the goals of the lesson according to this strategy. The second is for the student and his multiple roles, and because of the benefits, it contains of raising achievement, increasing interest in peers and the academic subject, and a sense of mutual trust among members of the cooperative group, and increasing participation and responsibility among them while performing tasks. However, the educational and teaching process must not be limited to providing students with knowledge that speaks to their minds. Not only that, but students must be provided with skills that guarantee their healthy social and physical development. Based on the above, the researcher had to choose this topic for the current research to answer the following question: (What is the level of professional performance according to the cooperative learning strategy among art education teachers in the middle school)?

Research Importance

(Al-Ghoul, 2018)^[1] Indicates “The professional performance of teachers is their implementation of their tasks and duties entrusted to them according to their job title in a specific period of time, whether related to school administration, teaching, or professional development, and in a way that leads to achieving the educational goals of the school efficiently, effectively and in a manner. It is worth noting that professional performance is closely linked to the nature of the work carried out by the teacher or educational supervisor, and the awareness of the various educational processes that he goes through, until the desired achievement is achieved, which is reached by implementing supervision as planned, and as long as the professional performance. It is linked to human behavior and linked to

following the correct procedures and instructions, and thus leads to reaching the required achievements.” (Al-Ghoul, 2018: 45)^[1] “Professional performance is of great importance within any institution, as it is the means through which the institution is pushed to implement its plan with vitality and activity. It also makes supervisors follow up on the duties and responsibilities of their subordinates on an ongoing basis, and pushes workers to work effectively and energetically, in addition to the fact that it represents the final outcome of all the activities and work required to be accomplished.” According to the decreed system, whether at the level of the manager or the subordinates, the institution will be more stable and distinguished, and the importance of professional performance from the institution’s point of view is due to the extent of its connection to achieving its goals in its various stages, which are the stage of stability, continuity, the stage of reputation and pride, the stage of distinction, and then the stage of leadership. Whether it achieves any of the aforementioned stages depends on the level of professional performance of its employees” (Al-Sharif, 2004: 127)^[2]. “The importance of professional performance is also evident in considering it a measure of the student’s ability to perform his work in the present, as well as to perform other work in the future, and its connection to incentives, the need for stability at work, discovering the training needs of workers, and in making decisions related to promotion and transfer” (Al-Qassim,2005:455). “The importance of professional performance from the institution’s point of view is also due to the extent of its connection to achieving its goals in its various stages, which are the stage of stability, continuity, the stage of reputation and pride, the stage of distinction, and then the stage of leadership. Whether any of the aforementioned stages is achieved depends on the level of professional performance of the employees.” “With it.” (Al-Sharif, 2004: 78).^[2]

Research Objectives

- Identifying the level of professional performance according to the cooperative learning strategy among art education teachers in the preparatory stage.
- Identifying the differences in the level of professional performance according to the cooperative learning strategy among art education teachers in the preparatory stage according to the variable of years of service (less than 5 years), (5-10 years), (more than 10 years).

Research procedures

1. Research Methodology

The researcher used the descriptive approach in the style of survey and comparative studies.

2. The Research Population And Its Sample

The research population reached (548) teachers of art education in the General Directorate of Education in Al-Qadisiyah, while the construction sample for the research reached (200) teachers. The sample constituted a percentage of (36.49%) of the research population, noting that the construction sample was it was approved as a sample application, and Table (1) shows that.

Table 1: Shows the number of community members and the research sample according to the experience variable (years of service)

Gender	Categories (years of service)									Total		
	Less than 5 years			5-10 years			More than 10 years			Sample	Society	Percent
	Sample	Society	Percent	Sample	Society	Percent	Sample	Society	Percent			
Teachers	60	165	36.36	75	178	42.13	65	205	31.70	200	548	36.49

Research Procedures

To achieve the research objectives, the researcher followed the following steps in constructing a professional performance measure in accordance with the cooperative learning strategy for art education teachers, as follows:

1. Determining the behavioral scope of the concept of professional performance according to the cooperative learning strategy for art education teachers

In the process of building the scale, the theoretical behavioral scope of Shehata and Al-Najjar (2003)^[10] was relied upon, which consists of three areas: (performance related to school administration, performance related to teaching, and performance related to Professional development) and the definitions of each are shown in Appendix (2).

2. Formulating the scale items

After reviewing previous studies and the scales that dealt with professional performance in general, the researcher worked to formulate all the paragraphs in the style of declarative statements. One relative importance was given to all areas by drafting (15) paragraphs for each field, so that the total number of items for the scale was (45) a paragraph and taking into account the conditions for drafting a paragraph as specified in the literature on measurement and evaluation books and research methods, that the paragraph be distinguished by its ease and clarity, that it be short, carry a single idea, that it be representative of the different life situations of students, that the use of negation be avoided in drafting paragraphs, and that it is in the first person (Melhem, 2001: 169)^[18].

3. Correcting the scale items

The step of calculating the score obtained by each member of the research sample on the scale is one of the important steps. The score depends on the method of constructing the items and the number of answer alternatives and after the approval of the

experts on the answer alternatives formulated according to the Likert model. With a five-point scale, they are:

(Always applies to me, often applies to me, sometimes applies to me, rarely applies to me, never applies to me) 0 Note that this method is one of the common methods used in constructing psychological scales because it is characterized by ease of construction and correction, provides a scale characterized by homogeneity, and gives greater freedom to the respondent. In showing the intensity of his feelings towards the subject” (Al-Imam: 1990: 325)^[4]. Alternative grades (5, 4, 3, 2, 1) were given as shown in Table (2).

Table 2. Shows the alternatives and weights of the items of the professional performance scale for art education teachers

Alternatives	Always	Often	Sometimes	Rarely	Never
Grades	5	4	3	2	1

4. Validity of the scale items

After adopting the professional performance scale in its final form, the researcher provided appendix (2); The scale was distributed to a group of (12) arbitrators in the educational and psychological sciences, Appendix (1); They were asked to express their opinion about the suitability of the paragraphs to measure what they were designed for, the suitability of each paragraph for the field to which it belongs, and the suitability of the alternatives and instructions. He left the arbitrators the possibility of adding or deleting a paragraph and proposing the appropriate amendment to any paragraph that needed that. After retrieving the scale forms from the arbitrators, the researcher collected and transcribed the data for the purpose of analyzing it statistically, and using the square law (K2) and the percentage, adopting (80%) and above as a criterion for acceptance. The results showed the validity of all items to represent the fields to which they belong, and Table (3) shows that.

Table 3: Shows the validity of the items of the professional performance scale for art education teachers according to the cooperative learning strategy

Paragraph numbers in the scale	Number of paragraphs	Number of experts				Chi square value		Indication
		Agree	Percent	Disagree	Percent	Calculated	Tabulation*	
1-8-14-16-18-22-25-27 -31-36-41	11	12	100%	0	0%	12	3.84	Sig.
3-9-10-17-21-24-30-35-40-42	10	11	91.66%	1	8.33%	8.32		Sig.
5-13-19-23-26-29-34-39-43	9	11	91.66%	1	8.33%	8.32		Sig.
4-7-12-28-32-37-44	7	12	100%	0	0%	12		Sig.
2-6-11-15-20-33-38-45	8	12	100%	0	0%	12		Sig.

*The tabular value of (Chi square) is 3.84 at a degree of freedom (n-1) = 2-1 = 1 and a significance level of (0.05).

5. Scale instructions

The scale instructions represent a guide that guides the research sample members to answer the scale items correctly and easily without fallacies. These instructions include not mentioning the name and the answer for the purposes of scientific research and drawing the attention of the respondents to the importance of the topic without mentioning its title to avoid social desirability. An example has been given to illustrate How to answer paragraphs.

6. The first exploratory experiment

With the aim of identifying the difficulties that the researcher may face in applying the research tools, and knowing the extent of understanding the scale’s items and the clarity of the instructions before proceeding to apply them in the final form on a sample of community members (Al-Assaf, 2006: 209). Based on these criteria, it was done. Applying the scale to a sample of 40 teachers, randomly selected from Al-Zaytoun School, on Sunday, 1/7/2024, after the researcher herself applied the scale and asked them when there was any unclear paragraph or instructions that could be clarified for you, and after the answers were completed Not everyone asked her a practical question, so the average of the answers reached 19 minutes.

7. The second exploratory experiment (statistical analysis sample)

Faraj, citing Cronbach & Mehal, indicates that “there are some indications and indicators of construct validity, perhaps the most important of which are differences between groups and individuals, as it is logical to assume that individuals differ in The extent to which they have the measured characteristic, and

this assumption should be reflected in their performance on the scale.” (Faraj: 1997: 43-44). The literature in psychological and educational measurement indicates that the appropriate size of the sample for statistical analysis (discrimination sample) should be linked to the number of items on the scale. According to Nunnally's assertion (1981), in which she indicates that the ratio of the number of sample members to the number of items in the scale should not be less than five times the number of items, i.e. (5-1), to reduce the effect of chance in statistical analysis (Nunnally, 1981: 262), and based on the above, the professional performance measure was applied in accordance with the cooperative learning strategy on a sample of (200) art education teachers who were chosen randomly, and then the characteristics of construct validity and agencies were extracted:

A- Discriminatory power using the two extreme groups method: To calculate the discriminatory power of the items of the professional performance scale according to the cooperative learning strategy for teachers of technical education, the scores were arranged in descending order from the highest score to the lowest total score, then a percentage (27%) of the sample members’ responses were withdrawn to represent the upper group and the percentage (27%) to represent the lowest group. The number of teachers in the two groups was (108). The t-test was applied for two independent samples to identify the statistical significance of the difference between the averages of the upper and lower groups. The t-value was considered an indicator of the validity of the item by comparing it to the tabular and reported value (1.96) at a degree of freedom (106) and a significance level (0.05). Table (4) shows this.

Table 4: Shows the values of the T-test for the discrimination coefficient using the two-tailed sample method for the professional performance scale for art education teachers

S	The field	Paragraphs	المجموعة العليا		المجموعة الدنيا		(T) value*	Indication
			mean	STDEV	mean	STDEV		
1	Performance related to school administration	1	4.5000	7.2032	3.1481	1.57105	5.748	Sig.
		4	4.7222	4.5211	3.1296	1.67159	6.758	Sig.
		7	2.64	0.78	2.25	0.97	1.23	Non sig.
		10	4.0370	9.1038	2.9815	1.48566	4.452	Sig.
		13	4.1852	1.08287	2.1667	1.65689	7.494	Sig.
		16	3.5556	1.11027	2.2963	1.35465	5.283	Sig.
		19	148.8.3	7035.8	2.1481	1.21946	175.8	Sig.
		22	4.1296	1.01025	2.0370	1.28801	9.394	Sig.
		25	2.97	0.94	1.73	0.73	1.81	Non sig.
		28	3.5926	1.14131	2.1667	1.28489	6.097	Sig.
		31	4.1667	1.07721	2.0185	1.39393	961.8	Sig.
		34	4.0741	9.6840	2.2222	1.46231	7.759	Sig.
		37	4.3148	8646.8	2.1852	1.24498	10.24	Sig.
		40	8148.3	1.18280	1.4630	4033.8	11.91	Sig.
43	3.31	0.81	2.75	1.18	1.07	Non sig.		
2	Teaching-related performance	2	4.0556	1.29464	8333.1	1.24005	9.109	Sig.
		5	3.51	0.77	2.87	1.00	1.29	Non sig.
		8	4.4259	0.98291	1.6111	9.9843	14.76	Sig.
		11	4.2037	89821.0	1.7593	1.25796	11.62	Sig.
		14	4.0556	1.17227	1.9074	1.26295	9.161	Sig.
		17	8333.3	0.90596	1.9815	1.22074	952.8	Sig.
		20	8148.3	1.19865	8519.1	1.13947	722.8	Sig.
		23	3.56	0.74	2.53	1.13	1.90	Non sig.
26	3.9444	1.13962	8148.1	1.13394	9.734	Sig.		
29	3.7222	1.29464	2.0185	1.17346	7.165	Sig.		

		32	3.6296	1.24834	1.5741	9.4374	9.652	Sig.
		35	2.60	0.91	2.09	1.09	1.70	Non sig.
		38	8889.3	1.28367	8889.1	1.22346	288.8	Sig.
		41	3.7778	1.17629	8519.1	1.21946	353.8	Sig.
		44	4.2593	0.91497	1.9630	1.18103	11.29	Sig.
3	Performance related to professional development	3	4.2963	107510	1.7778	1.22346	11.36	Sig.
		6	4.2963	1.20736	1.7778	1.2367	10.50	Sig.
		9	3.69	0.46	2.25	1.07	1.80	Non sig.
		12	3.9444	1.03553	1.7778	1.09351	10.57	Sig.
		15	3.9074	1.39092	1.9815	1.48566	6.954	Sig.
		18	3.42	0.67	2.13	0.93	1.67	Sig.
		21	3.5556	1.14376	8889.1	1.11027	7.683	Sig.
		24	8704.3	84778.0	1.7407	1.08480	11.26	Sig.
		27	3.7778	1.44935	1.6296	1.10396	664.8	Sig.
		30	3.5741	1.20693	1.9259	1.16314	7.226	Sig.
		33	4.2037	1.088188	2.2593	1.51950	7.645	Sig.
		36	4.0741	1.02519	2.0556	1.41976	470.8	Sig.
		39	3.6111	1.35471	2.2778	1.43299	4.666	Sig.
		42	3.4630	1.46291	1.9815	1.35272	5.464	Sig.
		45	3.80	0.50	2.32	1.18	1.90	Non sig.

*The tabular (t) value at a degree of freedom of 108 -2 = 106 and below the significance level of (0.05) = 1.98

It is noted from Table (4) that the calculated T-value ranged between (1.07 - 15.31) and that items (7, 25, 43) are in the first domain (performance related to school administration) and items (5, 23, 35) are in the second domain. (Performance related to teaching) and paragraphs (9, 18, 45) in the third field (performance related to professional development) are non-distinctive items (not significant), as the calculated value indicated (36) distinct items.

B- Internal consistency: It was achieved through :
1- The method of the item’s relationship to the total score of the professional performance scale for art education

teachers: To find the correlation between the score of each item of the scale and the total score of the scale, Pearson correlation coefficients were calculated on the sample consisting of (200) teachers, and it was found that the correlation coefficient values for all scores ranged between (0.31-0.55) and with Comparing it with the value of the tabular coefficient (0.13) at a degree of freedom (198) and a level of significance (0.05). All the values for the items in the list were significant, and from this it can be inferred that the scale contains items that can distinguish between teachers in professional performance. For art education teachers, and Table (5) shows this.

Table 5: Shows the correlation coefficient of each item with the total score of the professional performance scale for art education teachers

Subscale	S	Correlation coefficient*	Indication	Subscale	S	Correlation coefficient*	Indication
Performance related to school administration	1	0.373	Distinctive	Performance related to school administration	19	0.427	Sig.
	4	0.375	Distinctive		22	0.393	Sig.
	7	0.425	Distinctive		25	0.317	Sig.
	10	0.349	Distinctive		28	0.475	Sig.
	13	0.398	Distinctive		31	0.338	Sig.
	16	0.418	Distinctive		34	0.384	Sig.
Teaching-related performance	2	0.314	Distinctive	Teaching-related performance	20	0.435	Sig.
	5	0.407	Distinctive		23	0.322	Sig.
	8	0.291	Distinctive		26	0.497	Sig.
	11	0.369	Distinctive		29	0.271	Sig.
	14	0.517	Distinctive		32	0.371	Sig.
	17	0.356	Distinctive		35	0.425	Sig.
Performance related to professional development	3	0.422	Distinctive	Performance related to professional development	21	0.320	Sig.
	6	0.390	Distinctive		24	0.387	Sig.
	9	0.488	Distinctive		27	0.308	Sig.
	12	0.406	Distinctive		30	0.555	Sig.
	15	0.366	Distinctive		33	0.379	Sig.
	18	0.386	Distinctive		36	0.362	Sig.

*The tabular (t) value at the significance level (0.05) and the degree of freedom (n) -2 = (200) -2 = 198 = 0.13

2- The method of the item’s relationship to the degree of the field to which it belongs

To calculate the correlation between the score of each item and the total field score for the subscales of the scale, by calculating correlation coefficients (Pearson), it turns out that all values

range between (0.35-0.64). To know its statistical significance, it was compared with the value of the tabular correlation coefficient (0.13) at a degree of freedom (198) and at a significance level (0.05), which means that all values of the paragraphs of the list are significant, and Table (6) shows this.

Table 6: Shows the item's correlation coefficients with the total score of the field to which it belongs on the professional performance scale for art education teachers

Subscale	S	Correlation coefficient*	Indication	Subscale	S	Correlation coefficient*	Indication
Performance related to school administration	1	0.400	Distinctive	Performance related to school administration	19	0.406	Sig.
	4	0.462	Distinctive		22	0.435	Sig.
	7	0.524	Distinctive		25	0.351	Sig.
	10	0.422	Distinctive		28	0.561	Sig.
	13	0.401	Distinctive		31	0.352	Sig.
	16	0.538	Distinctive		34	0.391	Sig.
Teaching-related performance	2	0.598	Distinctive	Teaching-related performance	20	0.466	Sig.
	5	0.640	Distinctive		23	0.391	Sig.
	8	0.383	Distinctive		26	0.576	Sig.
	11	0.492	Distinctive		29	0.468	Sig.
	14	0.604	Distinctive		32	0.458	Sig.
	17	0.403	Distinctive		35	0.531	Sig.
Performance related to professional development	3	0.487	Distinctive	Performance related to professional development	21	0.483	Sig.
	6	0.507	Distinctive		24	0.499	Sig.
	9	0.592	Distinctive		27	0.467	Sig.
	12	0.397	Distinctive		30	0.607	Sig.
	15	0.336	Distinctive		33	0.523	Sig.
	18	0.491	Distinctive		36	0.447	Sig.

*The value of the tabular (t) at the level of significance (0.05) and the degree of freedom (n) -2 = (200 -2) = 198 = 0.13

3- Correlation coefficient of domain scores and the total score of the professional performance scale for art education teachers

The Pearson correlation coefficient was used to extract correlation coefficients between the scores of the domains and

the total score of the scale through correlation coefficients calculated with the tabular value at a significance level of (0.05) and a degree of freedom (198), and Table (7) shows this.

Table 7: Shows the correlation coefficients of the subscales with the total score of the professional performance scale for art education teachers according to the cooperative learning strategy

S	The fields	Performance related to school administration	Teaching-related performance	Performance related to professional development
1	Performance related to school administration	1	0.7810	0.709
2	Teaching-related performance	-	1	0.801
3	Performance related to professional development	-	-	1
Total score		0.691	0.866	0.759

Tabular (t) value at significance level (0.05) and degree of freedom (n-2) = 200-2 = 198 = 0.13

8. Standard (psychometric) characteristics of the professional performance measure for art education teachers according to the cooperative learning strategy:

Validity: The validity of the test is a basic condition for effective scale tools in measuring the phenomenon being measured. The validity of the test means that the test measures what it was designed for. In other words, what is meant by the validity of the test is the extent to which the test is valid to measure a specific goal and aspect, and this validity appears in there are many forms (Al-Rosan: 2000: 210). The current scale has the following validity indicators:

A- Face Validity: It is one of the indicators of content validity, as the test items, instructions, form, and appearance should be linked to the name of the test of (45) paragraphs, a group of experts and specialists in educational and psychological sciences, curricula, and general teaching methods were examined, and their opinions were taken into account on the suitability of the paragraphs for the goal for which they were developed, as was clarified in the study of the validity of the paragraphs by the experts, as shown in Table (3).

B- Construct Validity: This type of validity was achieved by excluding non-distinctive items and retaining items that have the ability to distinguish between art education teachers in professional performance through the two-party group method,

and internal consistency was achieved by finding the correlation between The item and the total score of the scale, the relationship of the item to the score of the field to which it belongs, and the relationship of the fields to the total score of the professional performance scale for art education teachers according to the cooperative learning strategy, as shown in the previous tables (4, 5, 6, 7).

Reliability: In order to extract the reliability of the professional performance measure for art education teachers, the researcher adopted the following two methods:

A- The split-half method: The reliability coefficient extracted by the split-half method is called the internal consistency coefficient, which requires dividing the items into odd and even

items. The odd-numbered items refer to the first part of the scale, while the even-numbered items refer to the second part of the scale. The scale, through which it is then possible to calculate the correlation coefficient between the scores of the two parts of the scale, (Ley, 1971:119). Based on the above, the scale was applied in one form, one time, on a sample of (40) randomly selected individuals. As a teacher, after dividing his items into two halves, the odd and even items, and extracting the T-test for two independent samples, it appeared that the calculated T-value was (0.196), which is not statistically significant at the level of significance (0.05), which indicates that there is equality between the odd and even grades. Table (8) shows this.

Table 8: Shows the equivalence values between the odd and even number scores for the professional performance of art education teachers according to the cooperative learning strategy

S	Paragraphs	mean	STDEV	Calculated T-value	Tabular value	Significance level*
1	Individual paragraphs	131.61	12.32	0.196	2.15	0.05
2	Even paragraphs	132.42	13.76			

Then, the Pearson correlation coefficient was calculated between the two halves of the scale, and its calculated value was (0.717). Since the correlation coefficient used was for half of the test, it

was modified using the Spearman-Brown equation so that the reliability for the whole test was (0.835), and Table (9) shows this.

Table 9: Show the reliability coefficient is shown by the split-half method for the three domains and for the Measure of professional performance of art education teachers

S	The fields	Stability before correction	Stability after correction
1	Performance related to school administration	0.530	0.693
2	Teaching-related performance	0.336	0.503
3	Performance related to professional development	0.417	0.589
4	The scale as a whole	0.717	0.835

B - Internal Consistency Method: Cronbach's alpha: All questionnaires of the statistical analysis sample, amounting to (200) questionnaires, were subjected to analysis, and then the (Alpha) coefficient was used. The reliability coefficient

extracted in this way for the measure of the professional performance of teachers of art education reached an acceptable degree and is compatible with the psychological standards and Table (10). Shows that.

Table 10: Show the reliability coefficient is shown using Cronbach's alpha equation to measure the professional performance of art education teachers

S	Scale	Stability coefficient value
1	Professional performance of teachers	0,831

9. Statistical indicators

The statistical indicators that characterize the scale are useful in knowing the nature of the normal distribution, which can be identified through a group of indicators, including measures of central tendency, which are represented by the mean, standard deviation, median, and mode, and are significant when there is convergence between the values. Degrees of distribution (Al-Bayati and Athanasius, 1977: 167)^[5], and as shown in Table (11), skewness and kurtosis also represent two indicators of moderate distribution. The first indicates the degree of concentration of frequencies at different values of the distribution and the second indicates the extent of concentration of frequencies in a region of moderate distribution (Odeh and Al-Khalili, 1988: 81)^[15] which prompted the researcher to calculate the statistical indicators for the measure of professional performance of art education teachers, as shown in Table (11). The researcher was

asked, based on the results of the application, to find the distribution forms for each measure.

10. Description of the professional performance measure for art education teachers in its final form

The scale in its final form consists of (36) items, Appendix (3), distributed over three areas (performance related to school administration, performance related to teaching, performance related to professional development). Each area consists of (12) items, all of which were formulated in the form of declarative statements and placed in front of Each item has five alternatives (always applies to me, often applies to me, sometimes applies to me, rarely applies to me, never applies to me) and correction scores are given from (1-5) respectively, so the highest possible score for the respondent is (180) and the lowest is (180) degrees. His score is (36) and the hypothesized average of the scale is

(108) degrees. Whenever the respondent’s score is higher than the hypothesized average, this is an indication that he enjoys a percentage of professional performance, and whenever his score is lower than the hypothesized average, this is an indication of a low percentage of professional performance among art education teachers. Therefore, the researcher determined the levels of the scale for the sample members, who numbered (200) art education teachers. Therefore, these levels were determined

based on the true range of the scale and the fact that the scale consists of (36) items and that the answer alternatives are five, so the highest value that can be obtained the teacher grade is (180) grades, while the lowest grade that can be obtained is (36) grades. The upper value is then subtracted from the lower value and divided by the number of levels from which the length of the category is extracted. Accordingly, three levels have been determined as shown in Table (12).

Table 12: Shows the levels of the professional performance scale for art education teachers and the sample frequencies at each level

Scale	The lowest value that can be obtained by the sample in the scale	The highest value that can be obtained by the sample in the scale	The difference between the two values	Number of levels	Category length
Professional performance of teachers	36	180	144	3	48
Categories	Level	Iterations			
84 -36	Low	(20)			
132 - 84	Average	(35)			
180 -132	High	(145)			

Because the current research deals with the level of professional performance according to the cooperative learning strategy among art education teachers, the teachers were diagnosed according to the level of professional performance, and thus the number of teachers at the high level became (145) teachers whose grades ranged between (155-180) degrees, constituting a percentage of 5.72% of the research sample. As for the low-level individuals, their number became (20) teachers, whose grades ranged between (36-88) degrees, constituting 10% of the research sample. As for the rest of the sample members, they were present at the intermediate level, their number reached (35) and ranged their scores range between (116-134), and they constitute 5.17% of the research sample.

This goal was achieved through the procedures followed in constructing psychological measures, which were presented regarding this tool in the third chapter.

Identifying the level of professional performance according to the cooperative learning strategy among art education teachers in the preparatory stage

This goal was achieved by constructing a professional performance measure in accordance with the cooperative learning strategy for art education teachers on an applied research sample of (200) art education teachers. After processing the data statistically, the results of the research showed that art education teachers enjoy a high and moral degree through their possession of In general, for professional performance according to the cooperative learning strategy, and Table (13) shows this.

Results and Discussions

Building a professional performance measure according to the cooperative learning strategy for art education teachers-

Table 13: Shows the calculated and tabulated T-value for the significance of the difference between the mean and The hypothesized mean for a measure of professional performance among art education teachers

Variables	mean	STDEV	Hypothetical mean	t-value		df	The significance level is 0.05
				Calculated	Tabulation*		
Performance related to school administration	37.18	9.81	36	2.40	1.97	199	Sig.
Teaching-related performance	35.53	8.91	36	3.71			Sig.
Performance related to professional development	38,14	11,55	36	1.99			Sig.
The scale as a whole	110.86	21.19	108	2.699			Sig.

*The tabulated (t) value at degrees of freedom 200-1 = 199 and below the significance level (0.05) is equal to (1.97)

The results of the research showed in Table (13) that the mean for the first domain (performance related to school administration) was (18.37), with a standard deviation of (9.81), the calculated t-value was (2.40), and its hypothesized mean was (36). As for the domain the second (Performance related to teaching) reached an average of (35.53), with a standard deviation of (8.91) and the calculated t-value was (3.71), and its hypothesized average was also (36), and the third field (Performance related to professional development) reached an

average of (38, 14), its deviation is (11.55), its calculated T-value is (1.99), and its hypothesized mean is (36). As for the mean for the scale as a whole, it reached (110.86), its standard deviation reached (21.19), and the calculated T value for the scale reached (14.55). As a whole (2,699), the hypothetical average* for the scale was (108), and this mean falls within the average level of the professional performance scale according to the cooperative learning strategy for art education teachers. This indicates weak planning for implementing cooperative learning to some extent

and the need to enhance teachers' application of learning. When compared to the hypothesized mean of the scale and using the test of the significance of the difference between the two means using the equation of the T-test for one sample, it was found that the T-value calculated for the professional performance measure according to the cooperative learning strategy for teachers of art education and its fields is higher than the tabulated T-value, which indicates that the teachers of art education In the middle school stage, they have a statistically significant amount of the professional performance characteristic according to the cooperative learning strategy. The researcher attributes this result to the continuous monitoring and evaluation of the professional performance of art education teachers in accordance with the cooperative learning strategy by the school administration and the specialized supervisor to improve their performance, in addition to the presence of specific goals and principles for evaluating teachers' performance, stages, a specific timetable for its procedures and activities and its reliance on the professional standards of teachers. The availability of a plan for growth and improvement in performance. The researcher also attributes the performance related to teaching to be ranked first in the professional performance of art education teachers to the fact that the task of teaching is the first and basic task for teachers, towards which most of their efforts should be focused. As for the performance related to professional development occupying the third and last place. This may be due to the teacher being preoccupied with his teaching and administrative tasks at the expense of his professional growth, and thus the lack of time and effort available to him to pay attention to his professional growth. This is what was confirmed by (Sheikha, Shami, 2010)^[12]: "Professional performance is of great importance within any institution, as it is the means through which the institution is pushed to implement its plan with vitality and activity. It also makes supervisors follow up on the duties

and responsibilities of their subordinates on an ongoing basis, and pushes workers to work effectively and actively, in addition to because it represents the final output of all activities and work required to be accomplished according to the established system, whether at the manager or subordinate level, the organization will be more stable and distinguished." (Sheikha, Shami, 2010: 23) ^[12]. This result is consistent with (Al-Sammadi, 2010)^[6] "Cooperative learning provides cooperative structures and directs reinforcement and the reward system towards the group more than towards the students. Accordingly, we find that in the work of groups in order to ensure the achievement of the set goals and effective results, collective positive reinforcement must be provided more than Individual must because it is more successful in cooperative learning. Cooperative learning depends on the efforts of both the teacher and the student. Each of them has roles in the process of educational interaction, and each role is linked to achieving the desired goals of learning. As for this characteristic, we find that cooperative learning is not based on one party in the lesson, but rather there is integration between The teacher and the student both take their part in this strategy in order to achieve effective and successful classroom interaction." (Al-Sammadi, 2010: 239) ^[6]. This result agreed with the study (Hasnain, 2015), as the results of that study indicated that the research sample, who were teachers, possessed a degree of performance characteristic from the point of view of educational supervisors. Identifying statistically significant differences in professional performance according to the cooperative education strategy among art education teachers according to the variable years of service (less than 5 years, 5-10 years, more than 10 years). To determine the significance of the differences in the level of professional performance among art education teachers, means and standard deviations were calculated as shown in Table (14).

Table 14: Shows the means and standard deviations for the three variables (less than 5 years, 5-10 years, more than 10 years)

Variables	Number	mean	STDEV
Less than 5 years	67	108.76	29.02
5- 10 years	171	112.61	17.49
More than 10 years	162	111.04	19.23
Total	400	111.33	20.51

To identify the significance of the differences between the means of the three variables, one-way analysis of variance was used, and it became clear that the calculated F-value is (0.875) less

than the tabulated F-value (3.84) at two degrees of freedom (2 - 92) and a significance level (0.05), as shown in the table (15).

Table 15: Shows the results of the one-way analysis of variance to determine the significance of the differences in professional performance according to the cooperative learning strategy among art education teachers according to the variable of years of service

Source of variance	Sum of squares	df	Mean squares	F value		Statistical significance at 0.05
				Calculated	Tabulation	
Between groups	737.375	2	368.687	0.875	3.84	Non sig.
Within groups	167247.403	197	421.278			
Total	167984.777	199				

The statistical treatments in Table (15) above indicated that there are no statistically significant differences in professional performance according to the variable of years of service among

art education teachers. This can be attributed to the cumulative experiences that helped teachers achieve relative levels of professional performance according to the cooperative learning

strategy from Through their use of common methods in the education process, and the use of similar teaching methods, as well as the educational environment, a cooperative environment made it possible to reduce the differences between teachers in their professional performance in accordance with the cooperative learning strategy because they are from a single professional and cultural environment.

This result is consistent with the study (Ali, 2011), where its results indicated that there were no statistically significant differences in the research sample depending on the variable of years of service for art education teachers.

Conclusions

- The research measure prepared by the researcher (professional performance according to the cooperative learning strategy for art education teachers) is capable of revealing what it was prepared for.
- Cumulative experiences have helped art education teachers attain relative levels of professional performance in accordance with the cooperative education strategy.
- The educational environment is a cooperative environment that has enabled the reduction of differences between art education teachers in their professional performance in accordance with the cooperative education strategy.

Recommendations

- Expanding the educational environment, by preparing educational and teaching staff for the subject of art education who are aware of the materials and methods of the cooperative learning strategy under the supervision of a liberal and transparent educational specialist with more guidance and guidance.
- Art education teachers take into account the individual differences between students when they teach the subject of the art education lesson and deliver it to them and deal with them according to the cooperative learning strategy, while increasing the level of their performance and academic achievement.
- Holding training courses for all art education teachers in schools on mechanisms for implementing the cooperative learning strategy.
- Working to provide appropriate educational means and techniques for the art education subject in a manner consistent with the cooperative learning strategy.

Suggestions

1. Conducting a study that examines the relationship between professional performance according to the cooperative learning strategy and other variables such as (decision-making ability, ability to solve professional problems, conscientiousness) and other educational samples.
2. Conduct studies similar to the current research on different social and professional segments and other educational stages, such as the middle school and primary school, and compare them with the results of this research.

References

1. Al-Ghoul NFA. The degree of creative leadership practice among UNRWA school principals and its relationship to the job performance of teachers in Gaza Governorate [master's thesis]. Gaza: Islamic University; 2018.
2. Al-Sharif T. Leadership styles and their relationship to job performance from the point of view of employees in the Emirate of Mecca [master's thesis]. Riyadh: Naif Arab University for Security Sciences; 2004.
3. Al-Qasim MAK. The impact of the leadership styles of school principals.
4. Al-Imam MM, *et al.* Evaluation and Measurement. Baghdad: Dar Al-Hekma; 1990.
5. Al-Bayati ATA, Athanasius ZZ. Descriptive and inferential statistics in education and psychology. Baghdad: Al-Mustansiriya University; 1977.
6. Al-Sammadi MA. Teaching strategies between theory and practice. 1st ed. Amman: Dar Qandil; 2010.
7. Al-Rousan F. Modifying and Building Human Behavior. Amman: Dar Al-Fikr for Publishing and Distribution; 2000.
8. Al-Khafaf IA. Cooperative Learning. 1st ed. Jordan: Dar Al-Manhaj for Publishing and Distribution; 2014.
9. Hassanein M. The degree of educational supervisors' practice of change management and its relationship to the level of performance of their teachers in middle schools in the Gaza governorates [master's thesis]. Gaza: Islamic University; 2015.
10. Shehata H, Al-Najjar Z. Dictionary of Educational and Psychological Terms. Cairo: Egyptian Lebanese House; 2003.
11. Shami S. Organizational climate and its impact on employees' job performance, a case study at the University of Boumerdes [master's thesis, Algeria]. 2010.
12. Sheikha N. Human Resources Management, A Theoretical Framework and Practical Cases. Amman, Jordan: Dar Al Safaa for Publishing and Distribution; 2010.
13. Abdel Hadi N. In the field of educational measurement and evaluation and its uses in classroom teaching. 2nd ed. Amman, Jordan: Dar Wael; 2001.
14. Ali L. Attitudes of secondary education teachers towards cooperative learning/a field study in public schools in Damascus. Damascus University Journal. 2011;27(Suppl).
15. Odeh AS, Al-Khalili KY. Statistics for the Researcher in Education and Human Sciences. Amman: Dar Al-Fikr for Distribution and Publishing; 1988.
16. Farag S. Psychometrics. 3rd ed. Egypt: Anglo-Egyptian Library; 1997.
17. Qarsas AH. The role of the education inspector in developing the teacher's job performance. Generation Journal of Humanities and Social Sciences. 2019 ;(53).
18. Melhem SM. Research Methods in Education and Psychology. 1st ed. Amman: Dar Al-Maysara for Publishing, Distribution and Printing; 2000.
19. Lylee BJR, Bruce RE, Roger LD. The Psychology of thinking. Englewood Clifts, New Jersey: Prentice-Hall, Inc; 1971.

20. Nunnally JC. Introduction to psychological Measurement. New York: Grak Hill; 1981.

Creative Commons (CC) License

This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY 4.0) license. This license permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.