FINDING OUT THE EXTENT TO WHICH SCIENCE TEACHERS FOR THE FIRST INTERMEDIATE GRADE, PART TWO, ADHERE TO THE RULES OF BUILDING OBJECTIVE QUESTIONS

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A B S T R A C T	**K E Y W O R D S**
The current research aims to: Find out the extent to which science teachers for the first intermediate grade adhere to the rules of writing objective questions. The current research determines the following: 1- Science book for the first grade average .. 5th edition of the year 2021, the second part 2- The second semester of the academic year 2022-2023 3- A sample of science teachers in Karbala governorate center	

Introduction

For the first semester

For the evaluation a pivotal role in the educational process, based on its results, decisions and actions affecting the various aspects of this process are taken.

And why any educational system in any era is without a form of evaluation, as the Chinese knew the written exams and they were of a great degree of difficulty in order to choose the excellent category that was entrusted with high-ranking jobs, and the written exams were also used in Greece (Nassar, 2010, 38).)

and with The beginning of the twentieth century, the movement of tests began at the hands of Thorndike, methods of building tests developed, and objective tests appeared. (Abdul Salam et al. 1992, 18)

And Tests are among the most common measurement tools used in evaluating students, and the process of building and developing them has received great attention from educators because of the data they can provide that can be relied upon in making sound decisions that aim to improve the teaching and learning processes. The process of preparing tests is not easy. Not all papers are labeled with the word estimate a test the specifications of a good test apply to it, so many criticisms were directed against the tests when they are not a means to improve the teaching and learning process, but rather an authoritarian goal in itself that raises terror, anxiety and fear in the hearts of many students (Al-Sorti, 2009, 29)

And divided Written questions in terms of the form of the term to be used are divided into two main parts: essay questions and objective questions. Essay questions consist of a question or several questions that are directed to the student through the question paper. Answering them requires writing an essay, topic, or solving exercises. As for objective questions, answering them requires choosing one answer. Specific and includes, four types: true and false questions, multiple choice questions, pairing questions, and complement questions. (Hashem, 2006, 121)

and remain Objective tests are the best among the different types of evaluation in the opinion of many specialists due to practical considerations and the level of accuracy and honesty. The cost of correcting objective tests is relatively low and statistical concepts and processes can be applied to analyze their data and the possibility of measuring a large number of study objectives with a large number of questions during the short time of the test. (Al-Dosari 2001, 250)

Research problem and its importance:

A Objective questions have become dominant in exams prepared by teachers, but their frequent use in the daily evaluation of student achievement does not necessarily mean that these questions are written according to sound foundations and rules. It is true that such use gains teachers familiarity with objective tests and their uses, but their defects make them fall short of achieving their purposes in evaluation with a high level of efficiency and accuracy.((Al-Dosari, 2001, 240)

Several studies that analyzed the questions prepared by teachers (Al-Amir 2001, Al-Zahrani 2002, Al-Harthy 2007, and Al-Hamr 2012) indicated a significant deficiency in the level of these questions. The unclear paragraph, the textual transfer from the textbook, the alternatives are not logically arranged, the repetition of words in the alternatives, the correct answers are not distributed randomly The length, the proportion of the correct statements is less than 40% and more than 60%. The study of Al-Harthy 2007 and Al-Zahrani 2002 also indicates a low degree of teachers' possession of the cognitive competencies for preparing achievement tests.

Since multiple choice questions and true and false questions are the most common among the objective questions, this study comes to identify the degree of commitment of science teachers for the first intermediate grade to the rules of building objective questions, and the problem can be identified with the following question:

What is the degree of commitment of science teachers for the first intermediate grade to the rules of creating objective questions (multiple choice, true and false) from their point of view?

That is, are they committed to those correct rules that are agreed upon by those with experience and scientific specialization?

It is possible to benefit from the research in teachers' knowledge of the rules for constructing multiple choice and the rules for constructing true and false questions that should be taken into account when preparing tests.

It has also been shown how teachers need training on the rules of building questions and benefiting educational supervisors by providing assistance to the teacher in how to build objective questions in general.

Search goal:

The current research aims to find out the extent to which science teachers of the first intermediate grade adhere to the rules of building objective questions (multiple choice and true and false questions) from their point of view.

search limits :

Objectivity border Objective limits were limited to knowing the degree of commitment of science teachers for the first intermediate grade to the rules of constructing multiple choice questions and true and false questions. These two types were limited to being the most common among the types of objective questions used by teachers.

Temporal boundaries The research was applied to the study sample in the second semester of the academic year 2022-2023.

spatial boundaries The current study was limited to science teachers for the first intermediate grade in the center of Karbala Governorate.

Define terms

1-   Objective questions: - Defined by (Abu Allam 1987, 153) Objective questions: those questions whose grades can be assessed objectively, by which we mean that there is an agreement in the rulings if the objective question is corrected by a group of correctors, where everyone reaches the same grades without room for intervention Self judgments

And he defines them (Al-Zaher et al. 1991, 91): the questions in which the opinion of the self-corrector is not allowed to have any role in estimating the degree of the examinee, because the answer to all its paragraphs is completely specific and so that no two differ in correcting them.

Defines it (Nassar 2010, 234): Questions that are not affected by the subjectivity of the corrector and the circumstances of the correction, in the sense that if two or more correctors correct them independently, the score will not change.

The procedural definition of the researcher: These are the questions with a specific answer, the degree of which does not differ according to the person who corrected them.

2-   Criteria for constructing objective questions:

Known by Enas Sinan (2006, 19): The set of skills and knowledge necessary to build achievement tests that are supposed to be available in the teacher.

The procedural definition of the researcher: It is the foundations, principles and skills necessary to build objective questions, which should be available in the science teacher in general.

3-   Intermediate first: It is the first stage in intermediate or seventh studies in some arrangements in neighboring countries. At this stage, the student receives all kinds of knowledge and information.

Chapter II

Previous studies

1-   Qurashi Study (1999)

I aimedTo identify the availability of the necessary basic rules in building objective tests for mathematics teachers in the intermediate stage in the Kingdom of Saudi Arabia, Jeddah Governorate. A sample of 210 teachers representing the study population.

And he hasThe results of the study indicated the availability of only three rules out of the eleven rules related to constructing the right-false test, and the availability of five rules out of eighteen rules related to the construction of the multiple-choice test.

2-   Al-Zahrani Study (2001).

I aimed to detection on Possibility teachers the operation in area building the exams and their proficiency for practices the basic in Preparation the exams scholastic.And use researcher curriculum descriptive where situation a test objective from Type the choice from Multi category quarter to alternatives.

And he has indicated results the study on decline level Mastery and practice my teacher the sciences for the stage Medium for skills building the exams scholastic, and that level Mastery teachers from campaign BSC higher from level Mastery teachers from campaign diploma, as that level Mastery teachers with Experience short(Four Years Less)higher from level Mastery teachers with Experience Medium(5-10 Years)and that level Mastery teachers with Experience the middle(5 -10 top from level Mastery teachers (10Years), with Experience long(more from ten Years), and weakness Relationship associative between amount the information available I have the teacher, and degree practice it she has, And this Relationship indicate to that it whenever He was level Knowledge high above He was there practice actual for this Knowledge in building the exams.

3-   Zubaidi's study 2005

I aimed to evaluation Questions the exams final to my teacher mathematics for class the third average Governorate Al-Qunfudhah In the Kingdom of Saudi Arabia in a light Psychometric properties for testing the good and levels The cognitive domain The researcher used the descriptive analysis method and used a card to analyze a random sample of 18 tests, which represents 30% of the study population of 61 tests developed by 61 teachers.

And he hasThe results of the study indicated that teachers focus on essay questions in their questions, and do not pay attention to scientific steps in constructing school tests, and do not observe the logical sequence in questions from easy to difficult, and focus on the lower levels of thinking.

4-   Melani study 2002 AD:

It aimed to identify the degree of knowledge of mathematics teachers in the city of Makkah Al-Mukarramah with the rules of constructing achievement tests. The researcher used the descriptive approach, and the study tool was an objective test of the type of multiple choice (four alternatives). Holders of a master's degree are better than holders of other qualifications. Also, the teaching experience and the courses attended by the teacher in the field of measurement and evaluation did not have an important role in affecting the knowledge of teachers. The level of knowledge of secondary school teachers is better than the knowledge of middle school teachers, and there were no differences between the knowledge of teachers. Elementary school and middle school.

Chapter III

Search procedures

an offer researcher in this the chapter Curriculum search and his community And appointed him as well a tool the study And how build it and check fromValidity, reliability and statistical methods used

First: Research Methodology:

curriculumThe appropriate method for the study is the descriptive method. Where it relies on studying the phenomenon as it exists in reality and is concerned with describing it as an accurate description,

and expresses it qualitatively or quantitatively. Also, this approach is not limited to data collection and classification, but goes beyond that because it includes a degree of interpretation of this data (Obaidat et al. 2012, 180).

Second: the research community:

The research community consisted of male and female teachers of science for the first intermediate grade in the city center of Karbala, and those who continued to serve for the academic year 2022-2023.

Third: the research sample: The research sample consisted of 20 faculty members

Fourth: the search tool: The researcher adopted the tool that he prepared himself, based on previous studies, as the tool consisted of 22 paragraphs related to the rules for writing multiple-choice questions and 14 paragraphs for the rules for writing true and false questions.

Fifth: Honesty and constancy: For the purpose of verifying the validity of the research tool, the researcher relied on apparent honesty in that if he presented the questionnaire to a court sample of specialists in the field of psychology, methods of teaching science and methods of teaching social sciences, Appendix No. (2). The researcher took (80%) or more as a criterion for accepting the questionnaire items (Odeh 1998, 275), and all of them obtained this percentage and more.

As for the stability: The researcher relied on the method of re-testing the stability of the questionnaire on an exploratory sample of male and female teachers of science in the center of Karbala, numbering (10) other than the main sample, and by applying Pearson's correlation coefficient, the value of stability reached (0.83), which is a suitable value for research. (Back 1998, 345) and the questionnaire, in its final form, became Appendix No. (1).

Sixth: Research application: The researcher applied the questionnaire to the members of the basic sample of science teachers for the first intermediate grade on 3-4-2019. The researcher took into account the clarity of the questionnaire paragraphs by clarifying the unclear paragraphs of the target sample.

Seventh: Correction of the search tool: For the purpose of analyzing the data statistically, the response of the respondents to the paragraphs of the questionnaire was transformed into numbers that can be processed statistically. Where the alternatives were (high, medium, weak) and (3) were given to the alternative is high, (2) to the alternative is medium, and (1) to the alternative is weak, as the score of the total questionnaire became confined between (22-66) degrees in relation to the rules of writing multiple choice questions and (14-42) Regarding the rules for writing true and false questions.

Eighth: Statistical means:

The researcher used the following statistical methods:

1- Pearson correlation coefficient:

$$r = \frac{\sum xy - (\sum x)(\sum y)N}{\sqrt{/\sum x^2 - \frac{(\sum x)2}{n}} / /\sum y^2 - \frac{(\sum y)2}{n}}$$

R = correlation coefficient

N = the number of the sample

$\sum xy$ = The sum of the product of the opposite scores of the questionnaire for two time periods.

$(y\sum)(\sum x)$ = product of multiplying the total scores of the questionnaire in the first period by the total scores of the questionnaire in the second period.

$2X\sum$= the sum of the squared scores of the questionnaire in the first period

= square of the total scores of the questionnaire in the first period

$\sum y2$ = the sum of the squared scores of the questionnaire in the second period

= square of the total scores of the questionnaire in the second period

(The Narrator, 1989-443)

2- The weighted mean was used to extract the sharpness of the paragraph.

$$X = \frac{w1x1+w2x2+w3x3+w4x4+w5x5}{W1+w2+w3+w4+w5}$$

wherex = weighted mean

x = thousand valuesR by degree

w = paragraph repetition.

(Al-Jubouri, 1992, p. 16)

$$3 \text{ Paragraph Weight Percentage} = \frac{\text{Weighted mean (paragraph sharpness) x 100}}{\text{maximum degree}}$$

a To the maximum degree = the highest score in the triangular scale

(Al-Ahmad 2003: p. 168)

the fourth chapter

Results and discussion

The following is a presentation of the results of the research and it includes two tables. The first table is the response of the main sample to the rules for constructing multiple-choice questions, and the second table is the response of the main sample to the rules for building true-false questions. The researcher used the weighted mean to determine the severity of each paragraph and the percentage weight of the paragraph of the questionnaire paragraphs. The researcher took a degree of severity (2) or more, i.e. a weight percentile (66%) or more, for the accepted paragraph, then rearranged it again according to its severity, as shown in the following tables:

Table No. (1)

Paragraph sharpness, paragraph weight, and the new arrangement of the questionnaire paragraphs from the point of view of male and female teachers of science for the first intermediate grade. Rules for building multiple choice

original arrangement	Weight percent	its intensity	Paragraph	T
13	100%	3	beThe correct answer is Muslim	1
1	96.6%	2.9	The phrase measures an important learning outcome	2

10	96.6%	2.9	Clarity of the grammatical structure of the phrase	3
18	96.6%	2.9	In the alternatives, terminology familiar to learners is used	4
11	93%	2.8	The item entry matches the alternatives	5
14	93%	2.8	Delete the repeated parts in the alternatives and add them to the clause	6
17	93%	2.8	The alternatives are independent of each other	7
4	90%	2.7	The paragraph number writes a number, and the alternatives are letters	8
5	90%	2.7	Consolidation of the idea	9
12	90%	2.7	Distribute the correct answer among the alternatives randomly	10
16	90%	2.7	Arrange the alternatives logically whenever possible	11
9	86.6%	2.6	The item contains only the information required for the answer	12
21	86.6%	2.6	Adoption Distractions for errors arising from lack of information or misunderstanding so that they are attractive to students who lack sufficient information and skills to choose the correct answer.	13
2	80%	2.4	Avoid building the question on the basis of a trick or a puzzle to trap the student	14
19	80%	2.4	The number of alternatives is from 3-5, the best being 4	15
15	76.6%	2.3	Homogenous alternatives are used in terms of content, syntax, and length	16
20	73%	2.2	to avoid Use common determinants such as: All answers are correct /false, none of the above,...	17

3	70%	2.1	Placed The term is in the root and the definitions are in the alternatives when it comes By definition term	18
7	70%	2.1	to avoid Words commonly associated with true or false generalizations (never, always, only...)	19
8	70%	2.1	to avoid Negation as much as possible, and if it is used, the negation tool is distinguished by placing a bold line under it or writing it in a thick line	20
6	66%	2	Complete Indicate its complement at the end of the root phrase, when the root is in the form of an imperfect sentence	21
22	66%	2	The correct answer is Muslim	22

Table No. 2

The sharpness of the paragraph, the percentage weight of the paragraph, and the new arrangement of the paragraphs of the questionnaire from the point of view of male and female teachers of science for the first intermediate grade. Rules for building true and false questions.

real ranking	Weight percent	its intensity	Paragraph	T
1	100%	3	you measure The statement is a clear learning outcome	1
14	100%	3	The statement is formulated either absolutely true or absolutely false	2
5	100%	3	The phrase is formulated clear, concise, and in proper language	3
6	93%	2.8	The phrase revolves around a main and important idea	4
7	93%	2.8	Avoid using terms that denote generalization (always, never).	5
10	90%	2.7	Arrange the phrases randomly	6
9	86.6%	2.6	to avoid Use hints to help you answer	7
11	86.6%	2.6	The phrase that represents a particular point of view is assigned to its source.	8
3	83%	2.5	Avoid compound phrases	9

8	83%	2.5	to avoid Negative expressions, especially the negative twice, with a line under the negative phrase	10
4	80%	2.4	Balance true and false statements in terms of number and length of phrase	11
13	80%	2.4	Determine the places of the answer, for example, put brackets after the end of the phrase	12
2	73%	2.2	to avoid Transfer the phrase from the textbook to the text	13
12	70%	2.1	Avoid Phrases based on trick-or-treating	14

We note from the two tables mentioned that all the paragraphs, despite the different percentages, did not fall below the criterion set by the researcher, which is 66% or (2) as a weighted mean. The sample was based on multiple choice questions based on true and false questions, and the sample excelled in correct and false questions based on multiple choice questions. It is the duty of the teacher or school in science to be familiar with these rules and assets to achieve a balanced and accurate test that helps the student to answer accurately and does not distract his mind and distinguishes between students' levels and abilities.

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