

Research Article

The Level of Universities Students' Test Wiseness in Jordan during Distance Learning in Light of Some Variables

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This study aimed to determine the level of students' test wiseness during remote learning. The study sample included (391) students from Amman Arab University. A scale consisting of (28) items was deployed to the participants after assuring its validity and reliability. The results showed a high level of students' test wiseness. Moreover, there were no statistically significant differences at ($\alpha = 0.05$) between the arithmetic means of the total degree of test wiseness attributed to the study variables, while there were statistically significant differences at ($\alpha = 0.05$) between the means of the dimension "Using of Time" on favor of male students. In addition, the findings elucidated that there were statistically significant differences at ($\alpha = 0.05$) between the arithmetic means of the dimension "Avoidance of Error" attributed to faculty in favor of the humanities faculties. Finally, the results showed statistically significant differences at ($\alpha = 0.05$) between the arithmetic means of the dimension "Deductive Thinking" attributed to the academic program in favor of master and bachelor students.

1. Introduction

Education is a continuous process of learning that is the underpinning of a nation's progress. As a result, the quality and accuracy of every educational system's assessment and evaluation process is critical to its success. Measurement and assessment are essential components of the teaching process in order to attain the educational system's goals. As a result, tests are employed for a wide range of objectives, and their application areas are constantly growing. They are one of the most significant tools for assessing and evaluating students' abilities, as well as determining how far they have progressed.

Tests can explore whether the behavioral goals, the required educational outcomes, or activities the teacher performs in the classroom have all been fulfilled or not. In addition, tests can help raise the students' achievement levels. Therefore, it is necessary that these tests be characterized by high efficiency in the process of measurement and evalu-

ation, and this efficiency can be reached by preparing typical and correct tests [1–3].

Nowadays, the concept of tests is much different from what it was in the past, when it meant fear, anxiety, and tension for students. As of recently, all educational institutions have emphasized changing their concepts for the better in order to keep pace with the ongoing civilizational development and the great scientific and technical progress based on achieving successful educational outcomes, so that the test has become known as measuring and evaluating all the work carried out by the teacher for the sake of judgment, the level of students' achievement, their comprehension of what they receive, and their understanding of the topics they have studied [4–7].

2. Literature Review

In the light of distance learning due to the coronavirus pandemic, the need to use electronic tests, which imposed on

students the need to possess different skills and strategies that help them perform tests in an effective manner, taking advantage of the characteristics of the test items and procedures to obtain a high score [8, 9].

Moreover, the teaching process, tactics, instructional materials, and results verification all had to alter swiftly, which many instructors and students were unprepared for. The use of digital assets to help the learning process is referred to as e-learning. It is often referred to as "online learning," "distance learning," "open learning," or "blended learning" and refers to the use of computers or other electronic devices connected to a network to allow students to learn from any location and at any time [10–12].

Workers in the field of educational measurement and evaluation have been interested in the topic of test wiseness, as it is one of the important matters associated with the test, as [13] stated that test wiseness is a subject's ability to utilize the characteristics, formats, and test-taking situation to receive a high score. Test wiseness emanates from regular examination taking [14, 15]. Fleischer, Grunkorn, & Killeme (2017) defined test wiseness as a skill that allows the student to utilize flaws in test construction and make use of test clues. It is a mental activity undertaken by the student to raise his test score, despite the fact that this score does not reflect the precise knowledge he owns of the test content. It should be recognized that test wiseness is one of the sources of variance in test scores and one of the threats to the validity of the test, as it is an ability or group of cognitive capabilities that the student possesses; it also reduces test anxiety and develops student positive attitudes towards tests in general [16–18].

Multiple-choice tests are most susceptible to the influence of test wiseness. This may be particularly problematic for test developers with large groups of examinees for whom they are responsible or those who have to assess mastery of a great deal of information. Each multiple-choice item includes a stem and a variety of alternatives, some of which are distractors besides the correct answer, hence the clues that are more outstandingly seen by test takers. Basically, multiple-choice questions are usually difficult to construct, easy to mark, and likely to suffer from shortcomings, including test wiseness. Furthermore, students with test wiseness have learned to approach multiple-choice tests differently from essay or short-answer tests, as they may reach the correct answer by eliminating some distractors depending on their partial knowledge of the test content, or they may get clues from other test items that may lead them to answer the item correctly. Some students tend to use blind guessing, which has a probability equal to $(1/\text{number of alternatives})$ of choosing the correct answer [19, 20].

It is noteworthy to say that test wiseness alone will not be sufficient for the student to succeed on the test, without prior preparation and possessing the knowledge necessary to answer the test items correctly. Barnes and Fives (2000) suggest that these skills and strategies are not a substitute for good preparation for the test, but possessing such skills and strategies may help the student obtain a high score [21, 22].

There are several classifications of strategies and areas of test wiseness Nitko [23] classified them into three categories: strategies (time exploiting, avoiding errors, and guessing). Xu & Wu [24] classified them into three main strategies: some of them are used before starting the answer (such as: reading all the questions, then starting with the easiest question), some of which are used during the answer to the test (such as: time exploiting, avoiding guessing errors), and some of them are used after completing the answer to the test (such as: rereading all questions to make sure they are properly understood). Sarnacki (1979) categorized them into five strategies: (exploiting of time, avoiding errors, guessing, inference and deduction, and the use of nudges and cues).

Abu Hashim (2008) conducted a study aimed at revealing the effect of test wiseness skills on academic achievement. As he used strategies (preparation for the test, time management, dealing with the question paper, dealing with the answer sheet, reviewing the answer sheet) and applied his questionnaire to (345) high school students in Kuwait, the results showed the use of strategies for dealing with the answer sheet, questions, preparing for the test and reviewing with a greater degree, as well as the absence of differences depending on the variable of gender and specialization.

Hammad [25] carried out a study to investigate the relationship between test wiseness and achievement performance on a test according to the Rach model among students of the College of Education at Umm Al-Qura University. The study tool was applied to (211) female students. The results showed that there was no correlation between students' scores on the test wiseness scale and their performance.

Hammadneh [26] conducted a study aimed at identifying the degree to which Al al-Bayt University students use test wiseness strategies and the impact of the university level on the degree of using these strategies. He used his questionnaire that classified test wiseness strategies into the strategies used (before, during, and after completing the answer) applied to (244) male and female students. The results showed the use of all strategies for the wiseness of the test to a high degree. The strategy used after completing the answer was in the first place, followed by the strategy used during the answer, and in the last place, the strategies used before starting the answer, as it showed that there were no differences attributable to a variable.

Wadi [27] conducted a study aimed at customary wiseness skills among students of the college of Education Ibn Al-Haytham for Pure Sciences, applying a test wiseness scale of (60) items to (400) students. The results showed that the sample members possessed test wiseness skills and the contribution of wiseness skills, positive testing in academic achievement and the absence of statistically significant differences according to the gender variable, and the presence of significant differences between scientific departments.

Suleiman's [28] study aimed to reveal the extent to which Tabuk University students possess strategies for the wiseness of the test in light of some variables such as specialization, GPA, and academic level. It was applied to (672) students, and the results showed that the most commonly used strategy among students is the logical deduction strategy. Moreover,

the outcomes also revealed differences in the use of test wiseness strategies for the benefit of scientific disciplines and in favour of those with high achievement and higher academic levels.

Azmi (2016) also carried out a study aimed at identifying the relationship between test wiseness and anxiety among college students in Iran. A questionnaire was applied to (60) female students. The findings highlighted the existence of an inverse correlational relationship, statistically significant, between test anxiety and test wiseness.

The study by Gbore & Osakuade [29] sought to reveal the effectiveness of test wiseness in mathematics on anxiety. The study tools were applied to (120) high school students in Nigeria. The outcomes elucidated a positive effect of training on test wiseness in reducing the level of anxiety of the study sample. Demands from those who have received test wiseness training are less likely to be of concern.

Al-Shammari & Al-Saadi [30] conducted a study aimed at identifying the correlation between test wiseness and the effectiveness of the creative self among university students. The researchers used the [13] scale for test wiseness and a scale for creative self-activity. The sample consisted of (401) students from the University of Babylon. The researchers concluded that there is a high level of test wiseness and the effectiveness of the creative self. In addition, there was also a statistically significant difference between the specializations on the two variables in the area of the humanities specialization. Furthermore, the differences between the genders were only in the effectiveness of the creative self in the interests of males, while the link between them is very weak [31] carried out a study aimed at developing a scale for measuring students' test wiseness in senior secondary school examinations in Nigeria. The study sample consisted of 380 male and 370 female students, ranging from 10 to 23 years old. The data was analyzed using reliability analysis and exploratory factor analysis. Cronbach's coefficient Alpha, Spearman Brown's and Guttman's split-half coefficients were used to determine reliability of the scale. Interitem correlation of the scale was carried out. Reliability coefficients obtained were significant at $p < 0.05$, Cronbach's alpha, Spearman Brown split-half and Guttman coefficient. Finally, the study showed that the scale was reliable and valid for measuring the test wiseness of the study sample.

Asaad & Al-Shammari [32] carried out a study aimed at identifying test wiseness and its relationship to preoccupation with learning and psychological tension among graduate students at the University of Samarra, according to the variables of the department, gender, age, employee, or non-employee. The study was based on a sample of (75) students from Samarra University. The results of the research showed a good level of test wiseness, a medium level of learning preoccupation, and a low level of psychological tension among the study sample, as well as the absence of statistically significant differences in the study variables according to gender and age. The existence of a correlation between test wiseness strategies and both learning preoccupation and psychological stress.

Hasballah [33] attempted in his study to reveal the relationship of each of time management and test wiseness in

academic procrastination. The researcher used a time management scale, a test wiseness scale, and an academic procrastination scale. The tools were applied to a sample of 750 students of the college of education. The results showed a high level of time management and test wiseness, and a low level of academic procrastination among the study sample. The findings also revealed a statistically significant negative correlation between all time management skills, and test wiseness skills with academic procrastination except for the skill of smart guessing, which was statistically significant positive correlated with academic procrastination.

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Donner et al. [34] conducted a study to investigate the effects of test wiseness training in mathematics on adolescent secondary school students' test anxiety. The study sample consisted of (120) adolescent senior secondary schools in the USA. These participants were randomly assigned to experimental and control groups. The experimental group was made to undergo the testwisness training package in mathematics, while "placebo" was used on the control group. The results showed no significant difference in the test anxiety levels of the participants before exposure to treatments; however, test wiseness training in mathematics had a positive impact on the adolescent secondary school students' test anxiety levels. Adolescent students without test wiseness training in mathematics are more test anxious than adolescents with test wiseness training in mathematics. The study suggested that teachers be encouraged to add test wiseness instruction to their regular mathematics classes so that their students may become test wise in a testing situation.

2.1. Commenting on Previous Studies. By reviewing the previous studies, it can be noticed that all of them aimed to reveal the level of test wiseness in light of some variables. Different samples were used, such as school students and university students. Previous studies sought to examine the extent of using test wiseness and its impact on student achievement, while some studies are aimed at revealing the relationship between test wiseness and other variables such as anxiety and academic procrastination.

This study is aimed at finding out the extent to which students at Amman Arab University possess test-wiseness in light of distance learning, according to the variables: gender, academic program, and faculty of students. What distinguishes this study is that it was carried out during distance learning and the electronic test that the student performed through different platforms such as Moodle, Zoom, and Microsoft teams.

Tests are used in universities to evaluate learning and to determine the extent to which students have achieved the goals. However, test wiseness plays an important role in the differences between students' performance on tests, in addition to their abilities and their mastery of subject content. It was noted that some students claim in some courses—as they say—that they often lose many scores because of not reading the test instructions carefully, besides wasting time set for the test before completing all of its questions. Moreover, some students complain that they are not able to get high scores in tests despite their good preparation, while other students of lower level get higher scores despite their lack of preparation, because of their good level of test wisdom, which they gained from passing through test situations.

Tests are used in universities to evaluate learning and to determine the extent to which students have achieved their goals. However, test wiseness plays an important role in the differences between students' performances on tests, in addition to their abilities and their mastery of subject content.

The motivation behind this study was the researcher wanted to see why some students claim that they often lose many scores because of not reading the test instructions carefully, aside from wasting the time set for the test before completing all of its questions. Moreover, some students complain that they are not able to get high scores on tests despite their good preparation, while other students of lower levels get higher scores despite their lack of preparation, because of their good level of test wisdom, which they gained from passing through test situations. The researchers seek to spot signs of student use of the test strategies that hinder them from getting the right answer.

Finally, the purpose of this research was to provide answers to the following question.

RQ1: What is the level of students' test wiseness at Amman Arab University during distance learning?

RQ2: Are there statistically significant differences at ($\alpha = 0.05$) between the arithmetic means of students' test wiseness during distance learning according to the variables: (gender, academic program, and faculty)?

3. Methods

3.1. Methodology. The descriptive approach was used for its appropriateness for this study purpose; this research is restricted to the Amman Arab University.

3.2. Study Population and Sample. The study's population consisted of all students registered at Amman Arab University for the academic year (2020-2021), whose total number reached (2,981) according to the records of the Admission and Registration Department.

3.3. Collection of Data. The scale was distributed electronically through Google Forms to an available sample of students from all faculties of Amman Arab University through groups of the academic divisions. The study sample consisted of (391) students. The scale was deployed at last

summer semester of academic year (2020-2021) after the students finished their online exams, which had been conducted through the e-gate of the university.

Table 1 shows the distribution of the sample members according to the variables of the study.

3.4. Study Instrument. With reference to previous studies and the theoretical literature on the topic, the test wiseness scale developed by the researcher Hammadneh (2019) was used and consists of twenty-eight items that included four strategies for test wiseness: (avoiding errors, deductive thinking, guessing, and using of time). As the scale has acceptable psychometric properties, the researcher translated the original scale consisting of (22) items and added some items to it. Later, it was judged by professors of psychology and mental health at the Helwan University, where it settled in its final form on (28) items. The validity of the scale was verified using factor analysis, which resulted in the presence of four factors that represent the test wiseness strategies, which contributed to explaining (33%) of the total variance. The correction of its stability coefficient, corrected by the half-segmentation method, was achieved by Spearman Brown's equation (0.648) and Guttman's equation (0.685). Cronbach's alpha reliability coefficient, which reached (0.709).

3.5. Validity of the Study Instrument

(A) Content validity

To ensure the content validity of the study instrument, it was presented to a number of specialized arbitrators in the faculty of education at the Amman Arab University to determine the appropriateness of the items to measure each of the items that compose the scale. In addition, determining the appropriateness of the linguistic formulation of the items

(B) Self-validity

The self-validity of the study instrument was also calculated by calculating the square root of the reliability coefficient, and since the reliability coefficient of the scale reached (0.86), the self-validity coefficient is equal to (0.93) which is a high-validity coefficient

(C) Indicators of construct validity

Construct validity indicators were verified by computing the Pearson correlation coefficient between the items and the total score, as shown in the Table 2.

Table 2 showed that the values of the Pearson correlation coefficients were higher than (0.30), which indicates that the scale has suitable construct validity. Moreover, the Pearson correlation coefficients between the dimensions were extracted; the values ranged between 0.52 and 0.63 which indicates the construct validity of the scale.

3.6. Reliability of the Study Instrument. To verify the reliability of the scale, it was applied to an exploratory sample consisting of (30) male and female students from outside the

TABLE 1: Study sample according to the demographic variable.

Variable	No.
Male	142
Female	249
Total	391
Humanities faculties	284
Scientific faculties	107
Total	391
Diploma	80
Bachelor	77
Master	234
Total	391

TABLE 2: The values of Person correlation coefficients between items and the overall score.

Item	Correlation between item and dimension it belongs	Item	Correlation between item and total score
1	0.50**	15	**0.48
2	0.33*	16	**0.62
3	0.61**	17	0.54**
4	0.52**	18	0.70**
5	**0.56	19	*0.36
6	**0.46	20	*0.35
7	**0.57	21	*0.34
8	0.50**	22	*0.33
9	**0.45	23	**0.51
10	0.61**	24	0.44*
11	0.52**	25	0.48*
12	**0.42	26	**0.53
13	**0.47	27	**0.55
14	**0.72	28	**0.45

** sig ($\alpha = 0.01$) *sig ($\alpha = 0.05$).

study sample. The reliability coefficient was calculated by the method of internal consistency according to the Cronbach alpha equation for the tool as a whole and its dimensions. Table 2 below illustrates this.

Table 3 shows that Cronbach's alpha reliability coefficients were all above (0.78) and the total reliability coefficient (0.86), and the self-validity coefficients were high, and this is evidence that the tool has high reliability and validity, which are appropriate values for achieving the purposes of the study.

3.7. *The Cut Scores of the Scale.* The arithmetic means of the students' test wiseness are judged according to the following equation: (the highest value in the ranking – the lowest value)/3. Thus, the categories are as follows:

- (1-2.33) is low.
- (2.34-3.67) is moderate.
- (3.68-5) is high.

TABLE 3: Reliability coefficient cronbach alpha and self-validity coefficient for the test wiseness scale.

No.	Strategies	No. of items	Cronbach alpha	Validity coefficient
1	Avoiding error	8	0.82	0.91
2	Deductive thinking	9	0.78	0.88
3	Using of time	6	0.83	0.91
4	Guessing	5	0.84	0.92
	Total	28	0.86	0.93

3.8. Study Variables

3.8.1. *Independent Variables.* Gender (male, female), Academic Program (Diploma, Bachelor, Faculty (scientific, humanities)).

The dependent variable: the level of practice of experiential or strategic wiseness:

3.9. *Supplementary Materials and Statistical Analyses.* The statistical data used to support the findings of this study are included in the supplementary information files. The study instrument includes information of participants' responses to the study.

- (i) Arithmetic means, standard deviations
- (ii) Multiple analyses of variance (MANOVA).
- (iii) Post hoc comparison

4. Result

4.1. *Findings Related to the First Question, Which States: "What Is the Level of Students' Test Wiseness at Amman Arab University during Distance Learning?"* To answer this question, the arithmetic means and standard deviations of the test wiseness strategies were extracted, as Table 4 shows.

Table 4 display that the degree of practicing test wiseness strategies in light of distance education was high, with arithmetic means (4.10) and (0.60) standard deviation. In last place came the deductive thinking strategies, with an arithmetic mean of (3.86) and a standard deviation (0.73).

4.2. *Findings Related to the Second Study Question, Which States: "Are There Statistically Significant Differences at ($\alpha = 0.05$) between the Arithmetic Means of Students' Test Wiseness during Distance Learning According to the Variables: (Gender, Academic Program, and Faculty)?"* To answer this question, the arithmetic means and standard deviations were extracted, as Table 5 displays.

Based on Table 5, it is noted that there are apparent differences between the arithmetic means of the test wiseness strategies according to the categories of the study variables (gender, faculty, and academic program). To find out whether these differences are statistically significant at ($\alpha = 0.05$), multiple analysis of variance (MANOVA) was used, as shown in Table 6.

TABLE 4: Arithmetic means and standard deviations of the degree to which Amman Arab University students possess test wiseness strategies.

Serial	Strategy	Arithmetic mean	Standard deviation	Rank	Level
1	Avoiding error	4.10	.6000	1	High
2	Deductive thinking	3.86	.7300	4	High
3	Using of time	4.07	.6200	2	High
4	Guessing	4.05	.7700	3	High
Total		4.01	.6100		High

Table 6 depicts that there are no statistically significant differences between the arithmetic means of the test wiseness strategies attributable to gender, faculty, and academic program, on the total degree of the scale.

The results showed a significant difference according to gender on the dimension “using of time” on favor of male students. Also, significant differences existed between the means of the dimension “avoiding error” in favor of the humanities faculties.

To figure out which category of the academic programs the differences are attributed to, the Scheffe test was extracted for the dimension “deductive thinking,” as Table 7 shows.

When comparing those with master’s and bachelor’s degrees to those with diplomas, the disparities in the arithmetic means of the dimension “Deductive Thinking” are due to those with master’s and bachelor’s degrees.

5. Discussion

The result of the first question may be attributed to students’ awareness of test wiseness strategies and their ability to employ them, especially on online tests, taking into account the advanced scientific level of the members of the study sample as a whole and exposing them all to various experiences from the tests in the different stages of study during the school stages and the university stage. Moreover, part of the study sample are teachers and/or employee in education sector they have experience in preparing school tests. This result was in agreement with the Hammadana study (2011) as well as the studies of Asaad and Al-Shammari [32], Hasballah [33] and Wadi [27] which showed a high level of test wiseness among the study sample.

The findings of the second question may be explained by the many online tests that the students took in all the faculties and the good training they had on how to deal with such exams, which allowed them to manipulate their time, speed, and manner of answering questions in the test. They also developed their writing skills for the essay questions, learned to understand instructions quickly, how to eliminate incorrect alternatives, how to avoid examination malpractice, and how to use similar alternatives, stem cues, guessing strategies, content information, consistency in grammar, response set, and abstract foils.

TABLE 5: Arithmetic means and standard deviations of the test wiseness strategies according (gender, faculty, and the academic program).

Strategies	Variable	No.	Arithmetic means	Standard deviation
Avoiding error	Male	142	4.17	.530
	Female	249	4.06	.640
Deductive thinking	Male	142	3.90	.680
	Female	249	3.83	.750
Using of time	Male	142	4.17	.580
	Female	249	4.02	.630
Guessing	Male	142	4.07	.730
	Female	249	4.04	.800
Total	Male	142	4.06	.560
	Female	249	3.97	.630
Avoiding error	Humanities	284	4.12	.570
	Scientific	107	3.94	.780
Deductive thinking	Humanities	284	3.86	.710
	Scientific	107	3.80	.840
Using of time	Humanities	284	4.08	.600
	Scientific	107	3.98	.750
Guessing	Humanities	284	4.07	.750
	Scientific	107	3.90	.950
Total	Humanities	284	4.02	.580
	Scientific	107	3.90	.770
	Diploma	80	4.03	.500
Avoiding error	Bachelor	77	4.04	.590
	Master	234	4.15	.640
	Diploma	80	3.66	.640
Deductive thinking	Bachelor	77	3.86	.760
	Master	234	3.92	.730
	Diploma	80	3.96	.600
Using of time	Bachelor	77	4.00	.610
	Master	234	4.13	.620
	Diploma	80	3.99	.750
Guessing	Bachelor	77	4.03	.830
	Master	234	4.08	.760
	Diploma	80	3.89	.520
Total	Bachelor	77	3.97	.620
	Master	234	4.06	.630

This finding is also in line and consistent with the findings of the Al-Wadi [27] study and the Otmoun et al. [35] studies, which found that there were no differences in the level of test wiseness between males and females, while statistically significant differences were found between the arithmetic means at the level ($\alpha = 0.05$) in the dimension (exploiting time) attributed to the gender variable on favor of male students. It could be attributed to the difference in stress and anxiety levels, as well as the self-confidence that accompanies the tests between males and females, according to their psychological personality. Males are often less stressed and anxious

TABLE 6: (MANOVA) test results to examine the significance of the differences between the arithmetic means of test wiseness according to (gender, faculty, and academic program).

Variance source	Dependent variable	Sum of square	df	Mean square	F	Sig
Gender	Avoiding error	1.012	1	1.012	2.834	.0930
	Deductive thinking	.4010	1	.4010	.7730	.3800
	Using of time	1.847	1	1.847	4.941	.0270
	Guessing	.1010	1	.1010	.168	.6820
	Total degree	.7040	1	.7040	1.928	.1660
Faculty	Avoiding error	1.608	1	1.608	4.504	.0340
	Deductive thinking	.3780	1	.3780	.7280	.3940
	Time exploiting	.6710	1	.6710	1.794	.1810
	Guessing	1.250	1	1.250	2.083	.1500
	Total degree	.8740	1	.8740	2.394	.1230
Program	Avoiding error	.9180	2	.4590	1.286	.2780
	Deductive thinking	4.217	2	2.108	4.063	.0180
	Using of time	1.766	2	.8830	2.362	.0960
	Guessing	.4640	2	.2320	.3870	.6800
	Total degree	1.725	2	.8620	2.362	.0960
Error	Avoiding error	137.804	386	.3570		
	Deductive thinking	200.288	386	.5190		
	Using of time	144.284	386	.3740		
	Guessing	231.611	386	.6000		
	Total degree	140.946	386	.3650		
Total	Avoiding error	6716.328	391			
	Deductive thinking	6020.407	391			
	Using of time	6632.139	391			
	Guessing	6642.280	391			
	Total degree	6421.385	391			

TABLE 7: The results of the Scheffe test to examine the significance of the differences between the arithmetic means of the dimension “deductive thinking” according to the student’s academic program categories.

Strategies	Program	Arithmetic mean	Diploma	Bachelor	Master
Deductive thinking	Diploma	3.66	—	0.20-*	0.36-*
	Bachelor	3.86	—	—	0.06-
	Master	3.92	—	—	—

when they are more self-confident. The result agrees with the study of Al-Shammari and Al-Saadi [30], which showed a higher level of test wiseness among male students. Besides, the results revealed that there are statistically significant differences at the level of ($\alpha=0.05$) in the dimension (avoiding error) according to the faculty variable on favor of the humanities faculties. Hence, this result may be attributed to the nature of the courses that students of humanities faculties are subjected to in their academic careers, which provide them with experiences such as measurement, evaluation, and dealing with tests. This finding is relatively consistent with the results of the Al-Shammari and Al-Saadi [30] study, which exhibited the existence of differences in favor of human majors,

while it was incompatible with the results of the Sulaiman (2014) study, which showed differences in the level of test wiseness for the benefit of scientific faculties. The findings also displayed that there were statistically significant differences at the level of ($\alpha=0.05$) according to the academic program.

Moreover, the result that master’s students have more experience in dealing with tests is attributed to the fact that they are at a more elevated stage than the rest of the sample. The duration of study at the bachelor’s and master’s levels is greater than the diploma program. In fact, it takes four years for the bachelor’s phase and two years for the master’s phase, while the duration of the diploma study is one year. This means that undergraduate

and master's students are exposed to more testing experiences and acquire test wiseness skills at a higher level. In addition to the majority of the diploma, students are workers in the field of education who want to improve their career status. It is worth mentioning that their period of absence from school is rather an extended period compared to bachelor's and master's students, whose studies are often continuous. The results of this question are relatively in agreement with the results of Solomon's study (2014), which found differences in the use of test wiseness strategies in favor of students with higher academic levels.

6. Conclusion and Implications

Test wiseness is a multidimensional psychological construct that consists of mental activity in how to perform on the test, which is an acquired cognitive ability for a set of skills to benefit from the characteristics of the test situation, which the examinee exercises during the test to improve his degree, and therefore, it is a mental activity accompanied by a conscious understanding of the requirements of the test that requires skills to deal with its vocabulary. It leads to good performance in its results. Some study showed that student can be trained and prepared on how to enhance test wiseness and reducing the level of anxiety.

The test is one of the most important and most common classroom evaluation and measurement instruments. Moreover, the test is an organized way to determine the degree to which an individual possesses a specific trait through the answers to a sample of stimuli that represent the trait. The purpose of these stimuli is to measure some aspects of human ability that belong in some way to organized learning or training. The type of test and its characteristics, the student's personality traits and abilities, the nature of the educational situation, and the characteristics of the corrector's personality are some of the factors that affect the validity and reliability of the test.

In this study, it was found that the level of student test wiseness at Amman Arab University was high, which calls and motivates the faculty members to make more efforts to construct good tests that take into account the student's cognitive levels and are free from errors to be able to assess students' achievement well.

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

- (i) Conducting more studies on test wiseness relating it with other variables such as time management
- (ii) Comparing students' levels of wiseness according to public and private schools
- (iii) Encourage and train students to use test wiseness during tests
- (iv) Holding workshops for faculty members on how to build a good test-taking strategy, taking into account the high level of test wisdom among students at the university

Appendix

A. Test Wiseness Scale (TWS)

- (1) Before I start answering, read the test instructions carefully to determine exactly what is required
- (2) I read the question several times, to avoid making a mistake while answering it
- (3) I ask the teacher about any ambiguities in the test questions if I am permitted to do so
- (4) I make sure that I have answered all the questions before submitting the answers
- (5) I underline the important words or sentences in the question
- (6) I read all the alternatives carefully before choosing an answer
- (7) I read all the alternatives quickly choosing an answer
- (8) I read the vague terms carefully to determine what they mean
- (9) I answer the test questions as quickly as possible while being accurate in answering
- (10) I eliminate the wrong options first and then choose one of the remaining options
- (11) I review questions of similar content; perhaps one contains the answer to the other
- (12) I eliminated the "all of the above" alternative, if any, if I found conflicting options
- (13) If I am unsure of my answer, I choose the first one that comes to mind
- (14) If I am not sure that the answer is correct, I choose one of the alternatives that are similar
- (15) I eliminate options that are opposite in meaning
- (16) If I am unsure of the answer to a question, I choose the most general answer
- (17) If I do not know the answer, I choose the alternative that is more specific in its meaning
- (18) I answer the easy questions first and then move on to the hard questions
- (19) I answer the easy questions first and then move on to the one with high marks
- (20) I take time at the end of the test to review my answers
- (21) I allocate an appropriate time to answer each question
- (22) I make sure from time to time that I comply with the exam time

- (23) I do not resort to guessing, unless all attempts to answer the question have failed
- (24) I use guessing, if there is an answer that I can know from among the options
- (25) I use guessing, if there is an answer that I can know from among the options; I use guesswork, if time is running out
- (26) If I do not know the answer to the question, I leave this question unanswered
- (27) If I do not know the answer, I choose any random answer (A-B-C-D)

Data Availability

The underlying data supporting the findings of this study can be obtained by contacting the corresponding author directly.

Ethical Approval

Ethics approval was not required for this study.

Conflicts of Interest

The authors declared no potential conflicts of interests with respect to the research, authorship, and/or publication of this article.

Supplementary Materials

The statistical data used to support the findings of this study are included in the supplementary information files. The study instrument includes the information of participants' responses to the study. Section 3.8 describes these materials in detail (Supplementary Materials). (*Supplementary Materials*)

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