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## The Degree of Proficiency of the Students of the Physics Branch in the College of Basic Education for the Electronic Exam Using the Edmodo Platform and their Tendencies Towards it

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## Abstract:

Among the objectives of this paper is to identify the degree of proficiency of the students of the Physics Branch at the College of Basic Education for the electronic exam using a platform and their preferences for it, and in order to achieve the two goals of the Edmodo paper, which includes, and in order to achieve the two goals of the paper, the papers adopted the descriptive analytical approach, and the paper community consisted of (613) students from the students of the Department of Science In its two branches (Biology and Physics) in the College of Basic Education at the University of Maysan, the paper sample amounted to (170) male and female students from the students of the physics branch in its stages (second, third and fourth), where they were chosen in an intentional way, and by reviewing the literature and studies Previously, the two paperes prepared two paper tools, and the first tool for paper was (the electronic exam using the Edmodo platform) and it consisted of (40) paragraphs, and the second tool for the paper was represented by the (the propensity scale towards the electronic exam using the Edmodo platform), which consisted of (45) Paragraph, and the validity and reliability of the two tools were verified and applied to the selected sample. The results showed a statistically significant difference in the students' responses about the degree of their proficiency in the electronic exam using the Edmodo platform. This result is due to the availability of Sufficient experience and skill of some members of the paper sample from the students of the physics branch with modern electronic devices and means of communication, as well as the presence of a statistically significant difference in the

students' responses about their tendencies towards the electronic exam using the Edmodo platform. Modern technology among some members of the paper sample from the students of the physics branch to deal with modern electronic devices and means.

Keywords: electronic exam, Edmodo platform, Tendencies.

## First: Statement of the Problem:

There is no doubt that students form an important part of the basic foundation upon which the building and development of society rests, so the university must pay attention to them as they are the focus of the educational process, especially the level of their teaching and education, as it is measured how successful the university is in achieving its missions and the extent of what it achieves in The knowledge aspect, the level of learning, and their willingness to strive to approach success and good performance, so it has become a duty for universities to change their educational strategies by introducing the latest technologies based on development in the field of information and communication technology to contribute to urging the learner to rely on self and bear the responsibility of learning and the development of his ways of thinking and increase the amount of knowledge he has.

The world in general and education in particular has been affected by the Corona pandemic, so universities have become obligated to work on using e-learning to achieve the benefit for the students and to continue their scientific path, and from here there is necessary to study the reality of the application of the use of e-learning in educational institutions, which has become necessary in light of these circumstances. Circumstances and what characterizes our current era, which is characterized by amazing scientific developments and technological applications of scientific knowledge, and based on the foregoing, the paper conducted an exploratory study to find out the students' opinions regarding the electronic exam using the Edmodo platform, and another study to know the students' tendencies towards the Edmodo platform, and From here came the problem of the current paper represented by the following two questions:

1. What is the degree of proficiency of the students of the Physics Branch in the College of Basic Education for the electronic exam using the Edmodo platform?

2. What are the tendencies of the students of the Physics Branch in the College of Basic Education for the electronic exam using the Edmodo platform?

## Second:Importance of paper:

The present century has witnessed many changes in all areas of life, accompanied by a group of modern developments and new challenges. Accompanying these developments and challenges, crises appear, as crises are considered important and influential events in societies and are accompanied by fear of how to control them and from sudden changes of their

occurrence. The extent of its impact on the learner and society and the extent of its future impact and types of crises (social, health and economic crises), the most dangerous of which are health crises, which are called the epidemic. (Al-Shdifat, 2020, 186).

As the emerging (Corona epidemic) crisis emerged, a disease caused by a new strain of coronavirus that causes severe acute respiratory syndrome (Bender, 2020, 67), so universities turned to adopting e-learning in order to preserve the health and safety of their students, and to adopt platforms E-learning in education and exams, where the Edmodo platform is an effective tool in using technology instead of papers for examining students and following them up. Immediate answers by students by registering on this platform (Lotfi, 2019, 15), and in order for the teacher to know what the students like and what they do not like, he must study their tendencies and be aware of measuring tendencies to be able to help his students in Reaching a decision regarding their future educational plans, and previous studies have proven the importance of tendencies in pushing and motivating the learning process (Badawi, 2011, 101).

# Based on the foregoing, the importance of the current paper can be determined as follows:

1. The importance of e-learning as a modern and advanced system in line with the age of speed.

2. The importance of the Edmodo electronic educational platform as one of the most important educational platforms in the current century.

3. The importance of inclinations and their prominent role in increasing students' motivation towards studying.

4. The importance of the university stage as an advanced stage in study and education in terms of refining and building the student's personality and developing the level of thinking and culture.

# **Third: Paper Objectives:**

1. Identifying the degree of proficiency of the students of the Physics Branch in the College of Basic Education for the electronic exam using the Edmodo platform.

2. Identifying the tendencies of the students of the Physics Branch in the College of Basic Education for the electronic exam using the Edmodo platform.

## Fourth: Paper limits:

1. Human limits, which include students of the physics branch of the study stages (second, third, and fourth).

2. The time limits are represented in the academic year (2020-2021).

3. The spatial boundaries represented in the Physics Branch / Department of Science / College of Basic Education / Maysan University / Maysan Governorate / Iraq.

4. Scientific limits, which are represented in building two tools, the first to measure the electronic exam using the Edmodo platform, and the second to measure the tendency towards using the Edmodo platform.

## Fifth: Procedural definitions of search terms:

1. Proficiency is the achievement of students' performance of the skills specified for them through the use of the Edmodo platform easily and through the percentage of students' grades in the questionnaire prepared for this purpose.

2. The electronic exam is a set of various questions (multiple choice, true and false, matching, completing the blanks and others) using the Edmodo electronic educational platform.

3. The Edmodo platform is an electronic interactive learning platform approved by the Science Department at the College of Basic Education at the University of Maysan to conduct the monthly and final exams on it.

4. The tendency is the interest and desire of the students of the physics branch to take the electronic exam using the Edmodo platform and their demand for it, and it is measured by the degree that the students obtain on the slope scale prepared by the paper for the purposes of the current paper.

# Theoretical framework and previous studies:

# First, the theoretical framework:

# 1. Edmodo platform

Social networking sites via the Internet are one of the latest and most popular communications technology products, and these sites have brought about a great change in how to communicate and participate between people and communities, exchange messages, experiences, information, social discussions, and share photos and videos, and It became a world without borders that allowed everyone to express their opinions and see the opinions of others at any time and from anywhere, and it removed the difficulties and became a platform for the silent majority and a channel of communication (Al-Nasser, 2013, 33).

And the role of social networking sites is no longer limited to communicating with friends and exchanging social discussions, but its role has gone beyond that, as many companies and many project owners have begun to exploit these sites to promote their products and communicate with the target audience (Abu Arraj, 2015). 45).

On the educational level, universities and most educational institutions in different countries of the world use some electronic systems in order to create an interactive learning environment for the educational system. Among these electronic systems are the so-called Learning Management Systems (LMS), which are also called in many literatures virtual learning environments (VLE). It is also called electronic learning platforms (Machado, 2007, 12).

E-learning platforms are an integrated set of interactive services over the Internet that are not restricted by time or place and provide teachers, learners, parents and other participants in the educational field with the information, tools and resources necessary to support and enhance the educational and educational process (Hankins, 2015), 32), and through these electronic educational platforms, the teacher can design and build courses, and then students can enter the course that is designed to participate in various learning activities in these virtual environments so that the student is at the center of the learning process and participates positively and effectively.

A lot of paper has indicated that in addition to providing universities and various educational institutions with these different educational platforms, these educational platforms and electronic systems, but it was noted that social networking sites have also increased their use in classrooms, as many teachers and faculty members In universities and educational institutions they use it to take advantage of those tools and media in it to help achieve the goals of their educational lessons (Enriquez, 2014, 51), and among the examples of these social sites whose tools have been employed by faculty members (Facebook, Twitter, Google, blogs and others), but it is noticed from these sites that they are not dedicated to education and teaching, so specialists in designing such sites began to create sites and other social platforms that combine virtual learning environments and social networking sites, so that they are more specialized In the field of education and teaching, it provides the teacher and the student with the necessary tools to create an interactive learning environment that achieves the desired goals, and among the examples of these new educational social sites It is the Edmodo platform.

Edmodo is a free social learning platform that provides teachers and students with a secure virtual learning environment to communicate, collaborate, share educational content, participate in educational activities and discussions, in addition to homework, tests and the ability to track grades, the Edmodo platform combines the advantages of the Facebook network Facebook and the Blackboard Learning Management System, which uses Web (2.0) technology, and the number of its users is currently more than (47 million members), including teachers, students and parents, and thus it deserves the title of the first and largest social learning network in the world (Jabber, 2022, 174).

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The beginning of the establishment of the Edmodo platform was in Chicago, Illinois, USA, in (2008) and the idea came from (Jeff O'Hara & Nic Borg), who were working in the school district of Chicago schools, and they were seeing the extent to which students used social networking sites such as (Facebook). , Twitter and others) and the way they communicate with others, especially outside the classrooms, and they noticed the interruption of that communication between students as soon as they entered the classrooms of the school. In order to achieve harmonization between the school community and the community of students outside the school and to bridge the gap between how students live their lives and how they learn in school, the Edmodo platform was created to provide and integrate education in the twenty-first century environment (Edmodo.com).

Among the most important features of the Edmodo platform, in addition to being a free social learning platform for teachers, students and educational institutions, it has changed the way of teaching in the classroom and made it the chapter of the twenty-first century that depends on active learning, digital, interactive courses, social communication and increased interaction Between students and the use of smart devices, the Edmodo platform is also characterized by being a safe and closed environment between students, and teachers. Usage, because it is similar to Facebook, so it is easy and familiar to students, and setting up a new virtual classroom takes only seconds, and no private information is requested for students during registration except for the user name and password and does not require students to obtain a private email in advance. It is also characterized by monitoring grades, archiving messages, keeping them, and accessing them through smart devices or personal computers (Al-Qayed, 2015, 33).

#### **2. Tilt:**

Inclination can be considered a predisposition or ability to participate in a specific activity, and more specifically, inclination is a cognitive condition that includes cognitive awareness and emotional feeling together in a specific pattern of feelings, and these feelings can be either temporary or permanent, and this depends on how much and how the experience Which led to these feelings, and it is usually referred to the tendency as the ability of the individual to choose freely specific activities that provoke him with pleasant feelings such as reading in scientific fields or playing a certain sports game and the term tendency is a kind of related variables in which feelings may change regularly on the According to the phenomenon or thing associated with it, however, it is possible to distinguish between the verbal expression of the individual about his inclination towards a particular activity and his actual participation in this activity, as the individual can express his lack of inclination for music and with this he may usually play well on a musical instrument and similarly In many activities, the individual should reveal his inclinations in a particular activity that he performs, as the inclination requires a specific activity and participation in this activity. (Allam, 2000, 471).

Many psychologists view tendencies as a characteristic of personality, and many definitions of tendencies have been provided, including the definition of (Al-Zoubi, 2013), where he defined it as a general behavioral tendency of the individual that makes him gravitate towards a particular category of activity categories, and the tendency differs from The motive is that it is more stable and strong (Al-Zoubi, 2013, 126), and that the tendency in general is the attention and attention that the individual gives to a subject or activity in a way that he feels a degree of satisfaction in practicing this activity, and it differs from the occasional interests that occur And it disappears quickly and differs from the trend, as the tendency is related to what we like and prefer, while the trend is related to what we think (Zaytoun, 2001, 115).

Many studies and paper have shown that inclinations are one of the main determinants of learning, and tendencies can be direct or indirect, and direct tendencies include caring for people and seeing landscapes, while obtaining high degrees in academic achievement can be from indirect tendencies of what It can be achieved from self-affirmation, excellence, achieving the need for achievement and achieving social status, whether inside or outside the school, and the development of direct and close tendencies in general helps to achieve learning effectiveness with a better degree than the development of indirect and distant tendencies (Al-Sharqawi, 2012, 247).

#### Second: previous studies:

## 1. Study (Enriquez, 2014)

The study aimed to identify the use of Edmodo as a supportive and complementary tool for learning from the students' point of view in the curricula of the College of Social Sciences. A university student answered the questions of the questionnaire, then among these students (35) students participated in the discussions that took place through the university personal interview tool to share their perceptions and impressions about the use of the Edmodo platform, and the results were that the collaboration tools on the platform enable students to improve the quality of Their work is via the Internet, and these students receive the notes published on the platform and feedback from teachers and their fellow students. The study also indicated that the majority of university students participating in the study considered the platform's tools as effective complementary tools for their learning.

# 2. Study (Ali, 2015)

This study aimed to identify the perceptions of university students about the use of the Edmodo platform in language learning and their opinions about the possibility of using Edmodo tools as an alternative to the face-to-face discussions in English language lessons, and the study sample consisted of (24) male and female students in a technical university in Malaysia who used the Edmodo platform in previous courses, and to answer the study questions, the paper used the method of collecting qualitative data through the application of the group interview tool, and in general, this study showed that students have different

feelings and perceptions regarding their use of the platform in language classes English, and with regard to the possibility of replacing the discussion that takes place face to face with the discussion that takes place via Edmodo, the result was that it can never be a substitute for discussions that take place online, and this is due to the main and important points in the topics of the lessons that can be highlighted and explained, and They are easily understood when face-to-face discussion is used.

#### **Search procedures:**

#### First, the paper method:

The paper relied on the analytical descriptive method to achieve the two objectives of the paper, which is defined as "the organized scientific method that the paper adopts in his study of a particular social phenomenon according to certain paper steps by which the necessary data and information about the phenomenon are collected, organized and analyzed in order to reach its causes and Its causes and the factors that control it, thus drawing conclusions that can be generalized in the future" (Jandali, 2010, 199).

## Second: The paper community and its sample:

The paper community is defined as "all the elements and vocabulary of the problem or phenomenon under study" (Al-Jardi, 2009, 198), and defining the paper community is an important matter in educational paper and is important in choosing the sample, so the current paper community consists of all students of the Department of Science In the College of Basic Education at the University of Maysan for the academic year (2020-2021), the number is (613) male and female students. for the study" (Al-Nouh, 2004, 79), and the sample represents all the traits in the paper community, and these traits maintain their relationships with each other in the form they take in the original community (Al-Azzawi, 2008, 163), and after defining the paper community, the paper took a sample From the paper community in the intentional way, and it was represented by the students of the physics branch for the academic stages (second, third, and fourth), and their number was (170) male and female students.

## Third: the search tools:

For the purpose of achieving the two goals of the current paper, the paper must have two tools, the first to know the degree of mastery of the physics branch students in the College of Basic Education for the electronic exam using the Edmodo platform, and the second to know the tendencies of the physics branch students in the College of Basic Education for the electronic exam using the Edmodo platform, and the following Explanation for that:

## **1.** A questionnaire for the electronic exam using the Edmodo platform

The paper built a questionnaire to measure the degree of proficiency of the physics branch students in the College of Basic Education for the electronic exam using the Edmodo platform, and the questionnaire is "a tool for collecting data related to the subject of the study through a form that is filled out by the respondent" (Gharabeh, 2002, 71). The use of the questionnaire is to reach information, experiences, trends and opinions that cannot be accessed by traditional means, as it is the most appropriate tool for collecting data necessary to achieve the objectives of the paper (Abu Hawij, 2002, 252), and the paper prepared the questionnaire in its initial form after reviewing the literature And previous studies related to the topic of the current paper, as the construction of the tool requires the following steps:

#### a. select the target

The tool aimed to identify the degree of proficiency of the students of the Physics Branch in the College of Basic Education for the electronic exam using the Edmodo platform.

## **b.** Define tool areas

By briefing the paper on a set of literature and previous studies related to the subject of the paper, the paper were able to prepare the areas of the tool, and after taking the opinions of experts, arbitrators and specialists in the field of curricula and methods of teaching physics and computer science, the paper found that there is an agreement on defining areas The tool consists of eight areas (computer culture, the importance of the electronic exam using the Edmodo platform, the environment, educational materials and equipment, multimedia, the use of networks and the Internet, the design and management of the electronic exam, the skills of using the Edmodo platform, classroom interaction).

## c. Paragraph drafting

After defining the areas of the tool, and after reviewing the paper literature, previous studies and expert opinions, and based on what was mentioned in the theoretical aspects, (48) paragraphs were formulated in their initial form and distributed into eight areas.

## d. tool instructions

In order for the tool to be fully formulated in its initial form so as to serve as a guide to guide the students during their answers to the paragraphs of the tool, the paper prepared clear and understandable instructions that included that there is no correct answer and another as much as it expresses their opinion and there is no need to mention their names. The answers will be used for scientific paper purposes.

## e. correction tool

After the tool items were formulated, the paper used five response alternatives, graded from (Fully Agree, Agree, Somewhat Agree, Disagree, Completely Disagree) according to the five-

point Likert scale, and through the scores obtained by the paper can obtain The score of each respondent answered the tool and in this way the search tool was corrected.

#### Authenticity of the tool:

It is its ability to measure what it was developed for and the characteristic to be measured (Abd al-Rahman, 2007, 69), and in order to verify the validity of the tool, the two paper followed two methods:

## - Virtual validity

It is the general shape of the tool or its external framework in terms of objectivity and clarity of its paragraphs and instructions (Al-Mahasnah, 2013, 218), and the best way to calculate the apparent validity is to display the paragraphs of the tool before applying it to a group of arbitrators who are characterized by experience that enables them to judge the validity of the paragraphs of the tool In measuring the characteristic to be measured, as it makes the paper confident of their opinions and takes into account the provisions that most of them agree on or by a percentage of (80%) or more (Al-Kubaisi, 2010, 265), and the apparent validity of the questionnaire was confirmed by displaying the questionnaire in its initial form (48). A paragraph on a group of experts, arbitrators and specialists in the field of curricula and methods of teaching physics and computer science, whose number is (27) experts and arbitrators, to express their opinions in terms of the clarity of the questionnaire's paragraphs and their comprehensiveness of the content and the validity of each paragraph with the field to which it belongs and the validity of each A paragraph of the questionnaire for the purpose for which it was developed and any observations and modifications they deem appropriate, and the questionnaire was modified and revised according to their observations, where the paper collected the answers and were arranged and deleted from them to become (40) paragraphs according to the opinions of experts and arbitrators.

#### **Construction validity (internal consistency)**

The construct validity refers to the extent to which the tool measures the measured characteristic or characteristic, and there are several ways through which the construct validity can be reached, including finding the relationship between the degree of each of the paragraphs and the total degree of the tool, given that the total degree of the tool is a criterion for the validity of the tool (Majid, 2010)., 44), and this type of honesty depends in calculating the correlation coefficients between the degree of each paragraph and the total degree of the tool. Al-Dulaimi, 2005, 125), and the paper verified this through the procedures they carried out in finding the correlation coefficients.

## g. Exploratory application of the tool

After the paper made sure of the validity and stability of the tool, and for the purpose of ensuring the clarity of the instructions and the time taken in the answer and the linguistic formulation for the respondent, the paper applied the tool to an exploratory sample consisting of (66) male and female students from the total number of students in the paper community, and after completion From the answer, the results of the answer showed that the tool's instructions were clear and the paragraphs understood, then the answers were filled out in special forms for this purpose.

## NS. Statistical analysis of the paragraphs of the tool

The main purpose of the paragraph analysis is to identify the degree of strength of the paragraph that we choose from the paragraph analysis, as it helps in discovering errors, which will benefit in the long run to improve paragraphs and then prepare better tools in the future (Al-Dulaimi, 1997, 69), the degrees of the sample were divided after correction into two groups, a high group containing the highest (27%) of the students' answers and a lower group containing the lowest (27%) of the students' answers, as the paper used the two extreme samples method with (46) for each group, and the paper used several methods to analyze the paragraphs Statistically they are:

## Calculation of the discriminatory power of the vertebrae

The discriminatory power was calculated for each item of the tool by using the t-test for two independent samples, and all of them were statistically significant at a significance level of (0.01) and a degree of freedom (90), because it was higher than the scheduled t-value of (2,390).

The relationship of the paragraph's degree to the degree of the tool as a whole

The validity coefficient of the tool paragraphs was calculated by finding the relationship of each paragraph of the tool with the total score of the tool, and all values were statistically significant at the level of significance (0.01) and the degree of freedom (90), because it was higher than the scheduled value of (0.342).

The relationship of the degree of the paragraph with the degree of the field to which it belongs

Pearson's correlation coefficient was used to calculate the relationship between each student's score on the paragraph and his total score on the domain, and all correlation coefficients were statistically significant, because they are higher than the tabular value of (0.342) at the level of significance (0.01) and the degree of freedom (90).

## a. Constancy

Stability is one of the basic conditions that should be provided in the tools used in the studies, and to verify the stability of the tool, the paper calculated the stability coefficient of the tool using the (Alpha-Cronbach) equation, in order to find the tool's stability coefficient, where the stability coefficient calculated according to the aforementioned equation reached (91%), which is a high stability coefficient in light of the percentage determined by (Al-Nabhan, 2004, 237), where it is highly stable if the stability coefficient ranges between (80% - 95%).

## **b.** Final tool

In light of the procedures carried out by the paper to prepare the tool and by finding honesty and stability and in light of the opinions of experts and arbitrators, the tool consisted of (40) paragraphs equally distributed over eight areas, and with these procedures, the tool became ready for application in its final form.

#### c. Tool application

After the paper confirmed the validity and stability of the tool, the paper applied their paper tool represented by the questionnaire in its final form on the basic sample consisting of (170) male and female students from the physics branch of the study stages (second, third, fourth) in the Department of Science in the College of Basic Education at the University of Maysan for the academic year (2020-2021), in the form of an electronic link.

# 2. Determination of the tendency towards the electronic exam using the Edmodo platform

To achieve the two objectives of the current paper, the paper built a questionnaire to measure the degree of inclination towards the electronic exam using the Edmodo platform after reviewing some previous studies and some literature related to the topic of the current paper, where the paper prepared the questionnaire in its initial form, which consisted of (50) paragraphs, and The following illustrates the steps for constructing the inclinometer, as follows:

#### a. select the target

The tool aimed to identify the tendencies of students of the physics branch in the College of Basic Education for the electronic exam using the Edmodo platform.

#### b. Paragraph drafting

By reviewing previous studies related to the topic of the current paper, the paper built the paragraphs of the tendency scale and formulated them in an appropriate manner for the sample in terms of linguistic integrity, clarity and ease of paragraphs. Agree, somewhat agree, disagree, completely disagree), and in light of what was mentioned, 50 paragraphs were drafted in their initial form.

#### c. tool instructions

In order for the tool to be fully formulated in its initial form so as to serve as a guide to guide the students during their answers to the paragraphs of the tool, the paper prepared clear and understandable instructions that included that there is no correct answer and another as much as it expresses their opinion and there is no need to mention their names. The answers will be used for scientific paper purposes.

## **D.** correction tool

After the tool items were formulated, the paper used five response alternatives, graded from (Fully Agree, Agree, Somewhat Agree, Disagree, Completely Disagree) according to the fivepoint Likert scale, and through the scores obtained by the paper can obtain The score of each respondent answered the tool and in this way the search tool was corrected.

#### e. Authenticity of the tool

It is its ability to measure what it was developed for and the characteristic to be measured (Abd al-Rahman, 2007, 69), and in order to verify the validity of the tool, the two paper followed two methods:

#### - Virtual validity

The best way to measure the apparent validity is for a number of experts and specialists to estimate the extent to which the paragraphs of the scale represent the characteristic to be measured. About (the validity of the questionnaire's paragraphs, the soundness of the wording and installation, the extent to which the questionnaire paragraphs need to be modified, the degree of importance of each paragraph), and in light of those views, some paragraphs were deleted and excluded and others were modified, bringing the number of resolution paragraphs to (45) a paragraph.

## Construction validity (internal consistency)

Among the indicators of construct validity of the scale are the psychometric characteristics of its items, such as the item's ability to distinguish and its validity coefficient or its correlation with the test score, in addition to the fact that the reliability coefficient calculated by analysis of variance is another indicator of construct validity (Melhem, 2009, 273), and this was achieved through the procedures that The two paper found the correlation coefficients.

## And. Exploratory application of the tool

After the paper confirmed the validity and stability of the tool, and in order to know the positive and negative aspects that the paper might face during the final application of the

scale, and in order to identify the extent to which students responded and understood the paragraphs of the scale, the clarity of the instructions, the linguistic formulation of the scale and the time taken to answer, apply The paper measured the scale on an exploratory sample of (58) male and female students, as it was found that the paragraphs and instructions of the scale are clear to them.

g. Statistical analysis of the paragraphs of the tool

After correcting, the sample scores were divided into two groups, an upper group containing the highest (27%) of the students' answers and a lower group containing the lowest (27%) of the students' answers. The paper have several methods for statistical analysis of paragraphs, which are:

Calculation of the discriminatory power of the vertebrae

The discriminatory power was calculated for each of the scale items using the t-test for two independent samples, and all of them were statistically significant at a significance level of (0.01) and a degree of freedom (90), because it was higher than the scheduled t-value of (2,390).

The relationship of the paragraph's degree to the degree of the scale as a whole

The validity coefficient of the scale items was calculated by finding the relationship of each of the scale items with the total score of the scale, and all values were statistically significant at the significance level (0.01) and the degree of freedom (90), because it was higher than the tabular value of (0.342).

#### a. constancy

To verify the stability of the scale, the paper calculated the stability coefficient of the scale using the equation (Alpha - Cronbach), where the stability coefficient calculated according to the aforementioned equation was (89%), and it is a high stability coefficient in light of the percentage determined by (Al-Nabhan, 2004, 237). It has high stability if the stability coefficient ranges between (80% - 95%).

#### b. Final tool

In light of the procedures carried out by the paper to prepare the scale and by finding honesty and stability, and in light of the opinions of experts and arbitrators, the scale consisted of (45) items, and with these measures, the scale became ready for application in its final form.

#### c. tool application

After the paper confirmed the validity and stability of the tool, the paper applied their paper tool represented by the questionnaire in its final form on the basic sample consisting of (170) male and female students from the physics branch of the study stages (second, third, fourth) in the Department of Science in the College of Basic Education at the University of Maysan for the academic year (2020-2021), in the form of an electronic link.

Fourth: Statistical methods

To achieve the two objectives of the current paper, the paperers used the statistical program (SPSS) to analyze and process the data.

Search results and their interpretation

First: Presentation and interpretation of the results

1. The first goal (to identify the degree of proficiency of the physics branch students in the College of Basic Education for the electronic exam using the Edmodo platform).

For the purpose of identifying the degree of proficiency of the students of the Physics branch in the College of Basic Education for the electronic exam using the Edmodo platform, the paper applied the tool dedicated to this goal on the paper sample of (170) male and female students of the Physics branch in the Department of Science in the College of Basic Education at the University of Maysan for the year (2020-2021), and after extracting the results and tabulating the data, the paper calculated the arithmetic mean of the sample, which amounted to (122,95) and a standard deviation (4,24), and to verify the above goal, the paper used the T-test for one sample to identify the differences between the average of the general judgment and the hypothetical mean of the tool, as it was found that the calculated T-value is higher than the tabulated T-value with a degree of freedom (169) and at a significance level of (0.01), which means that there are statistically significant differences in the students' responses (the paper sample ) about the degree of their proficiency in the electronic exam using the Edmodo platform, in a statistically significant manner, as shown in Table (1).

## Table (1)

The result of the t-test for one sample of the electronic exam tool using the Edmodo platform

Level	Degree of	T value		standard	СЛЛА	
sign	free	scheduled	calculator	deviation	SMA	sample
0.01	169	2.35	14.34	4.24	122.95	170

The paper attribute this result to the availability of sufficient experience and skill among some members of the current paper sample from the students of the Physics Branch to deal with smart electronic devices and the speed of obtaining means of Internet communication for students.

2. The second goal (to identify the tendencies of the students of the physics branch in the College of Basic Education for the electronic exam using the Edmodo platform).

For the purpose of identifying the tendencies of the students of the Physics branch in the College of Basic Education for the electronic exam using the Edmodo platform, the paper applied the tool intended for this goal to the paper sample of (170) male and female students from the Physics branch in the Department of Science in the College of Basic Education at the University of Maysan for the year (2020-2021), and after extracting the results and tabulating the data, the paper calculated the arithmetic mean of the sample as it reached (134,60) and with a standard deviation of (6,31), and to verify the above goal, the paper used the T-test for one sample to identify the differences between the average of the general judgment and the hypothetical mean of the tool, as it was found that the calculated T-value is higher than the tabulated T-value with a degree of freedom (169) and at a significance level of (0.01), which means that there are statistically significant differences in the students' responses (the paper sample ) About the tendency towards the electronic exam using the Edmodo platform and in a statistically significant way as shown in Table (2).

#### Table (2)

The result of the t-test for one sample of the tool for tending to the electronic exam using the Edmodo platform

Level	Degree	T value		standard	CD I A	
sign	of free	scheduled	calculator	deviation	SMA	sample
0.01	169	2.35	24.27	6.31	134.60	170

The paper attribute this result to the availability of sufficient self-capabilities in dealing with modern technology among some members of the paper sample from the students of the physics branch to deal with electronic devices and means as one of the requirements of contemporary life among young people.

Second: the conclusions

1. The results showed that the level of mastery level of the physics branch students in the College of Basic Education for the electronic exam using the Edmodo platform was well.

2. The results showed a tendency among students of the physics branch towards the electronic exam using the Edmodo platform.

## **Third: Recommendations**

1. Holding training courses and workshops for students to familiarize them with electronic skills when using electronic educational platforms.

2. Providing educational equipment and materials to assist learning and electronic examination in universities.

3. Encouraging students to participate in various educational activities via the Internet.

Fourth: Suggestions

1. Conducting a comparative study between the Edmodo platform and other educational platforms.

2. Conducting a study on the difficulties and challenges that students face in using the Edmodo platform in education and exams.

3. Conducting a similar study for other educational platforms and in other Iraqi universities. **Sources** 

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درجة اتقان طلبة فرع الفيزياء في كلية التربية الأساسية للامتحان الالكتروني باستخدام منصة الادمودو و ميولهم نحوها رشا عبد الحسين صاحب عبد الحسن كلية التربية الاساسية / جامعة ميسان

المستخلص:

يهدف البحث الحالي التعرف على درجة اتقان طلبة فرع الفيزياء في كلية التربية الإساسية للامتحان الالكتروني باستخدام منصة الادمودو و ميولهم نحوها ، و من أجل تحقيق هدفيّ البحث اعتمدت الباحثة المنهج الوصفي التحليلي ، و تكون مجتمع البحث من (٦١٣) طالباً و طالبة من طلبة قسم العلوم بفر عيه (الاحياء و الفيزياء) في كلية التربية الإساسية في جامعة ميسان ، و بلغت عينة البحث (١٧٠) طالباً و طالبة من طلبة فرع الفيزياء بمراحله (الثانية و الثالثة و الرابعة) حيث تم اختيار هم بطريقة قصدية ، و من خلال الإطلاع على الادبيات و الدراسات السابقة ، قامت الباحثة بإعداد أداتي البحث ، و تمثلت الأداة الأولى للبحث بـ (الامتحان الالكتروني باستخدام منصة الادمودو) و تكونت من (٤٠) فقرة ، أما وقرة ، أما الثانية للبحث فتمثلت بـ (مقياس الميل نحو الامتحان الالكتروني باستخدام منصة الادمودو) و تكونت من (٤٠) فقرة ، أما وقرة ، و تم التحقق من صدق و ثبات الاداتين و تطبيقهما على العينة المختارة ، حيث أظهرت النتائج وجود فرق ذا دلالة إحصائية في استجابات الطلبة حول درجة اتقانهم للامتحان الالكتروني باستخدام منصة الادمودو) و تكونت من (٤٠) وقرة ، أما إحصائية في استجابات الطلبة حول درجة اتقانهم للامتحان الالكتروني باستخدام منصة الادمودو و معزى هذه النتيجة إلى ومائية في استجابات الطلبة حول درجة التقانية و تطبيقهما على العينية المختارة ، حيث أظهرت النتائج وجود فرق ذا دلالة وقر الخبرة و المهارة الكافية لدى بعض أفراد عينة البحث من طلبة فرع الفيزياء مع الاجهزة الالكترونية الحيثية و وسائل



منصة الادمودو و تعزى هذه إلى توفر الامكانيات الذاتية الكافية في التعامل مع التكنولوجيا الحديثة لدى بعض أفراد عينة البحث من طلبة فرع الفيزياء للتعامل مع الاجهزة و الوسائل الالكترونية الحديثة.

الكلمات المفتاحية: الامتحان الالكتروني ، منصبة الادمودو ، الميول.