Attitudes of Physics Students in the College of Basic Education towards the Use of an Open-Source E-Learning Management System (Moodle) and Its Relationship to Some Variables

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The aim of the current research is to identify the attitudes of physics students in the College of Basic Education towards the use of an open-source e-learning management system (Moodle) and its relationship with some variables, where the use of descriptive-analytical method and was applied scale trend survey consists of (30) paragraph according to the Likert scale of five, and applied to a component of the sample (60) male and female students from the Physics Branch in the Department of Science, The College of Basic Education has different levels of study, where the sample was randomly chosen, and the arithmetic mean, standard deviation and the relative importance of each paragraph of the trend scale were calculated, and the researcher reached results indicating that there are positive trends among physics branch students towards using a management system e-learning open-source (Moodle) in addition, the results also indicate that students need more training in the use of an open-source e-learning management system (Moodle).

Key words: Physics students, e-learning management system, Moodle
Research Methodology

First: the research problem:

Iraqi universities began building infrastructure to keep pace with developments in e-learning systems and introduce them in various forms at all educational levels to keep pace with this development and progress, and in light of those endeavors, acceptance and appropriate use of these developments does not lead to positive results without previous studies that determine the extent of the target group and accept the trends and their capacity to absorb and the ability to deal with them with ease and proficiency to reach the desired goal in the educational process, and by informing the researcher on previous studies that dealt with systems of e-learning in various forms of not find a study on finding trends of students in Iraqi universities towards the use of an open-source e-learning management system (Moodle). Therefore, the current research came to identify the attitudes of physics branch students in the College of Basic Education towards the use of an open-source e-learning management system) Moodle and its relationship to some variables, by answering the following two questions:

1. What are the attitudes of physics students in the College of Basic Education towards the use of an open-source e-learning management system (Moodle)?

2. What are the attitudes of physics students in the College of Basic Education towards the use of an open-source e-learning management system (Moodle) According to the variable (sex and stage of study and computer experience)?

Second: Research objectives:

The current research aims to know:

1. Attitudes of physics branch students in the College of Basic Education towards the use of an open-source e-learning management system (Moodle).
2. Attitudes of physics branch students in the College of Basic Education towards the use of an open-source e-learning management system (Moodle) According to the variable (gender, grade, and computer experience).

Third: The importance of research:

1. Keeping up with recent trends in the educational process and trying to activate and benefit from them.
2. Spreading a culture of using e-learning systems in learning among college students.
3. Highlighting the attitudes of physics students in the College of Basic Education towards the use of an open-source e-learning management system (Moodle) in learning.
4. Focusing on the positive aspects of university students' attitudes and working to make efforts to address the negative aspects, which are reflected in the development of their attitudes towards using the open-source e-learning management system (Moodle) to learn effectively.

Fourth: Research hypotheses:

1. What are the attitudes of physics students in the College of Basic Education towards the use of an open-source e-learning management system (Moodle)?

2. Is there a statistically significant difference between the attitudes of physics branch students in the College of Basic Education towards the use of an open-source e-learning management system (Moodle) according to the variable (gender, stage of the study, and computer experience)?

Fifth: Research limits:

1. Spatial boundaries were represented by the College of Basic Education at the University of Maysan in Iraq.

2. Human boundaries were represented by students of the Physics Branch in the Department of Science at the College of Basic Education at the University of Maysan at various levels of the Physics Branch.

3. The border semester consisted of the second academic year (2018-2019).

Sixth: Definition of search terms:

1. Direction:

He identified it (Nitko, 2001,450) as "a positive or negative feeling towards a specific topic or idea", while Abu Ward, 26,2006, has defined it as "a willingness and direction towards a specific topic and the response to this subject relates to an acceptable excuse or Rejection, "while the procedural definition of direction is" the degree of acceptance or rejection of responses of physics students in the College of Basic Education to paragraphs of students' attitudes towards the use of an open-source e-learning management system (Moodle).

2. An open-source e-learning management system (Moodle):

(Salloum, 111, 2011) defines it as "an electronic system for managing, documenting, tracking and preparing reports on the progress of academic courses or training programs, students or trainees, and providing the possibility of cooperative learning and training, and providing
participation communication between users, the teacher or the trainer and management it is a complete e-learning process", While Abdul Karim (67,2011) defined it as a program designed to help in managing, following up and providing educational activities and continuous learning. Procedural definition is an online e-learning management system designed to help professors and students interact in a variety of forms, in addition to activities that complement classroom teaching, and has multiple capabilities that a teacher can use, such as lecturing, testing, forums, and discussion.

Theoretical framework and previous studies

First: the theoretical framework:

1. Directions:

The issue of trends occupies special importance in behavioral sciences, because it represents the most important motivation for the behavior of the individual in terms of control or direction, because the direction does not go out of being an evaluation judgment for one of the topics that may be abstract such as (self, equality, justice, freedom ..... etc) or be Concrete, such as (modern technology tools), and the repeated use of the concept of trends is mainly due to its concept or a hypothetical formation that indicates a stable direction or a somewhat stable organization of the individual's feelings, knowledge, and willingness to do certain actions towards any subject and is represented in degrees of acceptance and rejection of this topic, Trends can be expressed orally or in terms of performance. Therefore, understanding the trends helps to understand the relationship between the individual and the social phenomena he suffers from (Darwish, 4.2009).

A. Views explaining trends:

Whereas, trends represent the product of a complex set of concepts, information, feelings, and sensations that generate individual tendency and the desire to respond to a specific topic in a way that explains the formation of trends based on the number of views, including:

B. Behavioral Watch

Those who have a behavioral viewpoint related to union adaptation (Pavlov) talk about teaching trends and their formation and say: The body tends to generalize the stimulus and link the natural stimulus to other stimuli close to it or similar to it, and then the organism responds in the same way to stimuli similar to natural stimuli, in (Skinner) The author of the procedural clause holds that the response of an organism that enhances the possibility of its recurrence and based on this theory, the trends in which the associated patterns of behavior increase the likelihood of retaining it more than that which does not reinforce (Melhem, 321, 2006).
C. Cognitive view:

It is assumed that those with theoretical knowledge (Piaget, Bruner, Ospel) interpreted the directions of Wereham that man is rational and logical in his interactions and interactions with events, things, and information, in situations and opinions and that one can be tempted to listen to a specific message, interact with its content and learn, and then represent his behavior On the path of understanding and persuasion, therefore, the awareness of knowledge is based on helping the student to reorganize his information about the direction and the restructuring associated with the organization of knowledge in the light of information and data on the subject of the emerging trend (Rotter, 2013,3).

The social view:

People with social theory in interpreting trends indicate a suggestion (suggestion) that it plays a major role in shaping attitudes toward views and ideas of specific people or people who trust or love them without scrutiny, discussion, or criticism of my mind, such as the direction toward the family, religion, home, home, etc., and group leadership To which the individual's prominent role in determining trends belongs, as is the family, school and audio-visual media of the most important factors and tools and a social viewpoint in shaping trends for the individual (Bandura, 2014, 149).

a. Interactive view (human):

The owners of interactive theory depend on the principles of education and education on the basis of direct experience, and it is considered one of the most views in explaining the formation of trends and their broad learning and the most used in areas of education and education depends on the principles and foundations of previous opinions (behavioral, cognitive and social) and merging them together within the framework of the human mass Interactive curve, the success of supporting this human view on the availability of different audio and visual media and the teacher's ability to employ it as it addresses more than one sense, and provides opportunities for direct or indirect interaction with the subject of direction (Zaghloul, 198, 2007).

B- Composition of directions:

Trends in an individual are created in three basic ways:

- Direct contact with the topic of direction:
Contacting any subject for guidance through direct experience leads to the formation of its direction. There are two types of direct experience:
Experience in the form of trauma or the suffering of prominent aspects, and many researchers believe that the experience of trauma with a subject can lead to the emergence of a trend towards it or a change in direction towards it, and there are many supporting examples of this, including religious transformations and neurological disorders resulting from trauma war. Strong feelings are generated among students and may be positive or negative.

- Direct experience in the form of frequent communication whose effects accumulate and this type of experience has been subjected to a lot of research, most of which focused on the impact of social interaction within the group in the emergence of the trends of group members. Exposure to social organizations includes all other aspects of life:

**A family organization that raises the child.**

The groups to which young people are exposed in his path towards adulthood, the most important of which is the group of friends and classmates.

Private organizations to which an individual is subject in special circumstances, such organizations are less common than previous organizations and only a small percentage of people are subjected to them (such as political detainees who are subject to long prison terms and who are subjected to brainwashing. Or like neurotic people who are treated with psychoanalysis).

**Media exposure:**

An individual can rely on himself only informing his information about things, people and systems, but he must rely on other sources to complete this information or verify its sincerity, as the child relies on his parents, a student of his teacher, and is religious on the religion of men, and we adopt all the collection of our information On many topics on media sources from the press, radio or other, the information that is sent to us all through a medium and not all through direct contact with the subject of direction and a way to act is language (Al-Ma’atāh 166, 2000-167).

**Trend components:**

A trend consists of three components that interact with each other, as follows:

**Emotional or emotional component:**

A person's feeling about an object or person affects, accepts or rejects the thing. This emotional component does not have to be logical.
Knowledge component:

It is the information and knowledge contained in a person's point of view with the direction towards an object or incident and the idea related to his position. The more accurate and correct information and facts about the subject and direction, the direction is based on sound and correct basis.

Behavioral or performance component:

It is the act performed by the individual and indicates his direction towards a specific thing, person, or thought, that is, it is a practical translation of the individual's attitudes toward things, people, and ideas (Al-Hilla, 267, 2001-268).

Stages of forming a trend:

A trend is nothing but a set of acquired tendencies or preparations that direct an individual's responses to the subject and are relatively constant and can be modified or changed, and during its formation, it passes through several stages as summarized (Mukhtar, 209, 2015) in three basic stages as follows:

Cognitive stage:

At this point, the individual realizes environmental stimuli and acts accordingly, gaining experiences and information that serve as his knowledge framework.

The evaluation stage:

At this point, the individual interacts with stimuli according to the cognitive framework that formed them.

Estimated stage:

At this stage, the individual issues the decision regarding the quality of his relationship with these stimuli and their components. If the decision is positive, then the individual has a positive attitude towards this issue, and if the decision is negative, then this means that it was a negative trend towards it.

Types of trend data:

There are many types of trends and their classifications according to many criteria upon which classification depends, and they can be classified in terms of:
General:

They are general trends that focus on general topics of concern to the whole society and qualitative trends that focus on topics of a specific and specific nature related to a specific group of people.

Positive and negative:

Positive trends emerge around an environmental or personal issue and get individual support and attitudes. Negative trends are those trends that arise around a specific topic that the individual does not support and does not agree with (Salah, 249, 2016).

Flexibility:

Solid trends remain constant among their followers and are difficult to change, such as those that arise around religious beliefs, and flexible trends that can be changed easily and often around superficial marginal issues, are not part of individual values and sculpture can alter the influence of cognitive development or individual experience.

General:

Public attitudes are announced by the individual and he talks about them openly in front of others without embarrassment, and they relate to their subject and accepted societal orientations, secrecy, and trends that their owners try to hide and cannot express in front of others. It is related to situations or topics that are not acceptable and prohibited by society.

Energy:

Strong trends over time as a result of an individual's adherence to its value in relation to it and the strength of the trend are closely related to the direction itself, for example, religious trends, and weak trends that are easy to abandon and subject to change and transformation, because they relate to secondary issues or approval and their value is weak for individuals (Nasreddin, 100, 2006).

Methods for measuring trends:

Measuring a trend means transforming it from a descriptive formula (with) or (against) to a quantitative formula on the basis of which individuals or groups can compare with each other (Mr. and Saad, 264, 2011), to measure the practical trends of planning advantages in many areas, including health Mental education, education, politics, media, administration, work, and knowledge of public opinion in peace and war, especially if we want to modify or change the group's attitudes toward a specific topic (Registrar and Others, 229, 2000), and it is recognized
that one of the most important conditions that measure The importance of the subject of the trend, the direction of its simplicity and its importance to the competitors (Al-Hamam, 83.2014), and it can be measured in the direction of more than one important method and measures of direction:

The comparative method of marriage:

It was designed in 1957 to measure the meaning of psychological concepts, and published its use to measure trends since (1967), a widespread of simplicity (Elias, 50.2005).

Boggarts method (social dimension scale):

It contains units or expressions that represent some real-life situations to express the extent of the social dimension or social distance to measure the position of an individual of a particular gender or people.

Tarston method:

It measures the trends towards a number of units, and the scale consists of a number of units or phrases, each with a special weight and a value that expresses its status in relation to the scale as a whole (Melhem, 363,2000).

Gitman method:

It consists of measuring the direction by giving the paragraphs and in front of them accepting or rejecting the response, and he must choose the appropriate answer (yes, no).

The Likert method or collective method estimation:

This method depends on the directions for measuring the ranks, and it is one of the common methods used in educational, psychological and social measurement and research, and because it does not require much effort and time in preparing them and leads to similar results because it does not depend on the evaluation of arbitrators, where a list containing phrases or paragraphs is presented to the person. It refers to his disagreement in varying degrees that reflect the intensity of his direction, and uses a stepwise scale, either triple, five, or more, preferably not more than five so that the individual can move between them and choose his degree of approval accurately, and sees (Allam, 54 0,2006) that the sides The positive aspects of this method are:

All paragraphs measure the same scale.

- Provide an opportunity for individuals to express their responses through multiple alternatives in each paragraph.
Lack of effort and time to prepare consumers compared to other standards.

Avoid the difficulty resulting from presenting the paragraphs to a large number of arbitrators and the ease of analyzing their paragraphs statistically.

The researcher can prepare this standard in his field of specialization.

2. E-learning management systems:

All educational institutions seek to apply and use modern e-learning systems to achieve positive results for the teaching and learning process, and in light of the keenness of university educational institutions to contribute to building a knowledge society, and to provide integrated e-learning that responds to the requirements and needs of the labor market according to a successful strategy. Increasing the efficiency and productivity of graduates of educational institutions with high quality and in response to achieve this goal, it was necessary to use advanced and distinctive e-learning management effective systems to achieve better learning.

In light of the previous situation and in order to upgrade the university education sector, which represents the top of the educational pyramid and one of the most important cells of society that affects it and is affected by it, positively or negatively, it has become a duty of societies to develop their educational systems and to move away from traditional rigid stereotypes and think about new patterns, innovative formulas and modern methods that are compatible With the needs of the development process so that it can develop the university education sector and solve the problems and issues that afflict it, e-learning is one of the modern educational systems that respond to the development needs in society (Siam, 192,2013).

With the development of e-learning, learning management systems have become a very reliable means of teaching and training, whether in university education or anything else, such as learning management systems and content management programs for the field of e-learning in educational institutions and learners' training is a catalyst for both the teacher and learner to use the Internet in the educational process, These systems are designed to help teachers use the Internet to teach and communicate with learners in an easy way without the need for deep knowledge of programming methods (Abdul Majeed, 2013).

Based on the foregoing, university professors must use technological innovations to keep abreast of the latest technological developments used in the entire educational process and to transfer what they have learned to students more effectively.

Types of e-learning management systems:

E-learning management systems include two types as identified by study (Zazaa, 2012) which are:
Open source e-learning management systems:

They are the systems that are used for free, and no party has the right to sell them, because they are subject to development and modification by many interested parties and examples of this type (Moodle and Ilias).

Learning management systems, closed or commercial electronic source:

These systems are owned and developed by the profit company and allow use only with licenses and examples of this type (Blackboard, Webct).

E-learning management system (Moodle):

It is an alternative electronic environment to the traditional learning environment based on building interactive, synchronous and asynchronous methods between the learner and the teacher and between the learners and some of them via the Internet, in order to address the shortcomings in the traditional learning environments and employ modern technological methods to enrich the educational process (Ayyad, 188, 2008).

The open-source e-learning management system (MoodleAn) is an integrated software system responsible for managing the electronic learning process, as this system (Martin Doughamas) was designed to assist teachers in providing educational courses online while ensuring the content is built interactively and in addition to developing the content of these courses Continuously as the first version of it was launched on (August 20, 2002), but for the time being, the company (Moodle HQ) is leading this project, and the Australian company consists of (50) developers and financially supported through a network of (48) around The world, as programmers contributed to the development of open-source programs in this system (Jones, 2017, 56).

Second: Previous studies:

1. Study (Al-Arman, 2009):

The study aimed to know the effect of using e-learning systems on achieving a sample consisting of (14) students who studied the medical rehabilitation course using the (Moodle) program after applying the pre and post-test of the experimental group. The results showed that there are statistically significant differences between the students 'scores in the pre and post-test in favor of the post-test.
2. Study (Abdel-Aty 2010):

The study aimed to reveal the impact of the use of electronic courses on collecting a sample of (34) students from educational technology students, and the researcher designed the decision on the Moodle system, where he studied the electronic experimental group and the control group. He studied the usual schedule of his image, and after the results of the post-test, the results showed that there is a statistically significant difference between the averages of the students’ scores for the experimental groups, the control group, and the experimental group.

3. Study (Dahlan, 2012):

The study aimed to identify the effectiveness of the system-enhanced program (MoodleIn) which provides basic education students with daily planning skills, and the researcher applied a post-achievement test to the research sample consisting of (60) students, divided into two experimental and two arbitrators. The results showed statistically significant differences between the average score for students of the experimental and control groups and in favor of the experimental group.

Research procedures

First: Research methodology:

Follow the current research using a descriptive survey method, which is concerned with presenting the measured phenomenon as it is, as this approach is suitable for the goals and purposes of the current research and its variables.

Second: The Research Society:

The research community consisted of all students of the Physics Branch of the Department of Science in the College of Basic Education for the academic year (2018-2019) and they numbered (123) students (57) students and (66) students. Female students in the physics branch.

Third: The research sample:

The research sample consisted of (60) male and female students from the physics branch, who were randomly chosen for the academic year (2018-2019), and the sample was distributed according to the research variables as shown in Table (1):
Table 1. Frequencies and percentages according to search variables

<table>
<thead>
<tr>
<th>variable</th>
<th>percentage</th>
<th>Repetition</th>
<th>Categories</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td>% 47</td>
<td>28</td>
<td>Mention</td>
</tr>
<tr>
<td></td>
<td>% 53</td>
<td>32</td>
<td>female</td>
</tr>
<tr>
<td>Educational level</td>
<td>% 45</td>
<td>27</td>
<td>The second of</td>
</tr>
<tr>
<td></td>
<td>% 55</td>
<td>33</td>
<td>Third of</td>
</tr>
<tr>
<td>Computer Experience</td>
<td>% 52</td>
<td>31</td>
<td>They have computer experience</td>
</tr>
<tr>
<td></td>
<td>% 48</td>
<td>29</td>
<td>They have no computer experience</td>
</tr>
</tbody>
</table>

Fourth: The research tool:

The researcher prepared a questionnaire to measure the attitudes of physics branch students towards using the open source e-learning management system (Moodle) and its relationship to some variables after reviewing previous research and studies, where the questionnaire consisted of two parts, the first part included general information about the research sample that included (gender, school stage, computer experience, (while the second part included the trend scale which is of (30) items distributed to the five-Likert scale, was prepared paragraphs of the scale and presented to the arbitrators to take advantage of their views and comments and taking them, and after the amendments were distributed questionnaires on an exploratory sample of (40) students and students from non-research sample, for the purpose of extracting Validity and reliability of the research tool, to be applied to the research sample in its final form.

Fifth: The research tool is truthful:

To ensure the sincerity of the research tool, it was presented to a number of arbitrators with the aim of the suitability of the paragraphs for the purpose for which it was developed and the clarity of the paragraph and the integrity of its formulation, and the arbitrators expressed a set of opinions and observations and were taken and appropriate amendments were made, so that the tool is in its final form.

Sixth: The stability of the research tool:

To make sure the stability search tool has been verified in a way that re-testing, and by re-applied two weeks after a group of students from non-research sample and the adult population (40) students and students of students of physics branch, where the value of consistency using the Pearson correlation coefficient, (0.946), which is a strong direct
correlation coefficient, and the Alpha Cronbach equation was used, which reached \( 0.934 \) which is a high stability coefficient.

Seventh: Statistical Treatment:

The statistical program was used) SPSS (To statistically process the data.

**Research results, discussion, recommendations and proposals**

First: search results:

1. What are the attitudes of physics students in the College of Basic Education towards the use of an open source e-learning management system) Moodle)

To answer this question, arithmetic averages and standard deviations have been extracted from the attitudes of physics branch students in the College of Basic Education towards the use of an open source e-learning management system) Moodle , (And as shown in Table:(2)
Table(2) Arithmetic averages and standard deviations of physics branch students’ directions in the College of Basic Education towards the use of an open source e-learning management system (Moodle).

<table>
<thead>
<tr>
<th>Rank</th>
<th>the level</th>
<th>standard deviation</th>
<th>SMA</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>High</td>
<td>0.71</td>
<td>4.12</td>
<td>1</td>
</tr>
<tr>
<td>14</td>
<td>High</td>
<td>0.96</td>
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</tr>
<tr>
<td>2</td>
<td>High</td>
<td>0.83</td>
<td>4.43</td>
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</tr>
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<td>9</td>
<td>High</td>
<td>1.04</td>
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<td>4</td>
</tr>
<tr>
<td>20</td>
<td>High</td>
<td>1.09</td>
<td>3.49</td>
<td>5</td>
</tr>
<tr>
<td>23</td>
<td>Low</td>
<td>1.11</td>
<td>2.41</td>
<td>6</td>
</tr>
<tr>
<td>4</td>
<td>High</td>
<td>0.65</td>
<td>4.21</td>
<td>7</td>
</tr>
<tr>
<td>19</td>
<td>High</td>
<td>1.05</td>
<td>3.68</td>
<td>8</td>
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<tr>
<td>24</td>
<td>Low</td>
<td>1.45</td>
<td>2.33</td>
<td>9</td>
</tr>
<tr>
<td>29</td>
<td>Low</td>
<td>0.67</td>
<td>1.98</td>
<td>10</td>
</tr>
<tr>
<td>1</td>
<td>High</td>
<td>0.56</td>
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<td>17</td>
<td>High</td>
<td>1.06</td>
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<tr>
<td>13</td>
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<td>0.76</td>
<td>3.94</td>
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<td>5</td>
<td>High</td>
<td>1.22</td>
<td>4.45</td>
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</tr>
<tr>
<td>10</td>
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<td>1.02</td>
<td>4.03</td>
<td>15</td>
</tr>
<tr>
<td>26</td>
<td>Low</td>
<td>0.41</td>
<td>2.02</td>
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</tr>
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<td>18</td>
<td>High</td>
<td>0.98</td>
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<td>17</td>
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<td>25</td>
<td>Low</td>
<td>0.60</td>
<td>2.11</td>
<td>18</td>
</tr>
<tr>
<td>22</td>
<td>Average</td>
<td>1.90</td>
<td>3</td>
<td>19</td>
</tr>
<tr>
<td>15th</td>
<td>High</td>
<td>1.45</td>
<td>3.86</td>
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</tr>
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<td>16</td>
<td>High</td>
<td>1.13</td>
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<tr>
<td>28</td>
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<td>0.55</td>
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<td>22</td>
</tr>
<tr>
<td>21</td>
<td>Average</td>
<td>1.35</td>
<td>3.1</td>
<td>23</td>
</tr>
<tr>
<td>3</td>
<td>High</td>
<td>1.65</td>
<td>4.32</td>
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</tr>
<tr>
<td>11</td>
<td>High</td>
<td>0.52</td>
<td>3.99</td>
<td>25</td>
</tr>
<tr>
<td>30</td>
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<td>1.08</td>
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<td>8</td>
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<td>1.65</td>
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<td>27</td>
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<td>12</td>
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<td>1.29</td>
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<td>7</td>
<td>High</td>
<td>15.1</td>
<td>09.4</td>
<td>30</td>
</tr>
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</table>

The scale as a whole: 3, 432 \( \pm 1.29 \)
It is clear from Table (2) that the arithmetic averages ranged between (1.92 - 4.50), where paragraph (11), which states "Using the MoodleIt System in e-learning" came in first place with an Arithmetic Average (4). Then, paragraph (3) came, which states that "it helps to use the system (Moodle (keeping pace with the development of electronic courses") in the second place with an average of (4, 43), while paragraph (24) states that "Moodle (With great flexibility in managing e-courses “in third place with an average of 4 (32)”, while paragraph (7) states that “it is easy to use the Moodle system to exchange files between colleagues.” Came in at fourth place with an average of (4, 21), and the fifth arrangement was for Paragraph (14), which states "Use a system that helps (Moodle) receive immediate reactions" at a rate of (4, 14), while Paragraph (26) came in last, which states: "The use of the (Moodle) system is stressful education" and the mean (1, 92), and the mean for the scale as a whole is (3, 432) with a high estimate level.

2. What are the attitudes of physics students in the College of Basic Education toward the use of an open source e-learning management system (Moodle) according to the variable (gender, stage of study, and computer experience)?

To answer this question, arithmetic averages and standard deviations were calculated from the attitudes of physics branch students in the College of Basic Education towards the use of an open source e-learning management system (Moodle) according to the variable (gender and school stage) and computer experience), and as shown in Table 3:

<table>
<thead>
<tr>
<th>variable</th>
<th>Categories</th>
<th>standard deviation</th>
<th>SMA</th>
<th>the number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td>Mention</td>
<td>0.49</td>
<td>2.91</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>female</td>
<td>0.43</td>
<td>2.99</td>
<td>32</td>
</tr>
<tr>
<td>Educational level</td>
<td>The second of</td>
<td>0.46</td>
<td>2.99</td>
<td>27</td>
</tr>
<tr>
<td></td>
<td>Third of</td>
<td>0.44</td>
<td>2.93</td>
<td>33</td>
</tr>
<tr>
<td>Computer Experience</td>
<td>They have computer experience</td>
<td>0.48</td>
<td>2.95</td>
<td>31</td>
</tr>
<tr>
<td></td>
<td>They have no computer experience</td>
<td>0.36</td>
<td>2.83</td>
<td>29</td>
</tr>
</tbody>
</table>
Table (3) shows an apparent difference in arithmetic averages and standard deviations of the physics branch students' directions in the College of Basic Education towards the use of an open source e-learning management system (Moodle) (According to the variable (sex and school stage and computer experience), and to demonstrate the significance of statistical differences between the arithmetic averages were used analysis of variance triple, as shown in Table 4:

Table (4) Analysis of the triple variance of the impact of gender, study level and computer experience on the attitudes of physics branch students in the College of Basic Education towards the use of an open source e-learning management system (Moodle).

<table>
<thead>
<tr>
<th>Source of contrast</th>
<th>Value</th>
<th>Average squares</th>
<th>Degrees of freedom</th>
<th>Sum of squares</th>
<th>Statistical significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td>2,833</td>
<td>0,597</td>
<td>1</td>
<td>0.588</td>
<td>0.01</td>
</tr>
<tr>
<td>Educational level</td>
<td>2,809</td>
<td>0,178</td>
<td>1</td>
<td>0.345</td>
<td></td>
</tr>
<tr>
<td>Computer Experience</td>
<td>2,815</td>
<td>0,179</td>
<td>1</td>
<td>0.512</td>
<td></td>
</tr>
<tr>
<td>The error</td>
<td></td>
<td>57</td>
<td>167 , 23</td>
<td>59</td>
<td>561 , 24</td>
</tr>
<tr>
<td>Total summation</td>
<td></td>
<td></td>
<td>59</td>
<td>561 , 24</td>
<td></td>
</tr>
</tbody>
</table>

There is a difference of statistical significance at the level of significance (0.01) due to the influence of sex, where the value reached (2, 833). To show statistically significant differences between the arithmetic averages, dimensional comparisons of the healing method were used in favor of the female sex.

- There are statistically significant differences at the level (0.01) as a result of the effect of the study phase that reached the alpha (value 2, 809) and the indication of marital differences between the arithmetic means of the statistical function, as background comparisons were used until Ge Ge Hevah and in favor of the second stage.
- There is a difference of statistical significance at the level of significance (.01) as a result of the effect of the computing experiment leading to alpha (value 2, 815) and the indication of marital differences and the statistical function between the arithmetic averages. Back Haifa Wissal Road who have computer experience.

Second: Discussing the research results:

Regarding the first question, "What are the attitudes of physics students in the College of Basic Education towards the use of an open source e-learning management system (Moodle)"? The
results showed that the level of attitudes of physics branch students in the College of Basic Education towards the use of an open source e-learning management system (Moodle) was high, as the arithmetic average of the scale as a whole (3.432), and most of the paragraphs came at a high level, ranged arithmetic average between (1.92 - 4.50). This result is attributed to what is included in the Moodle open source learning management system (among the advantages that make it supportive of the educational environment in which it is implemented, as an open source Moodle helps the student's attention) Increase their motivation to learn, renew, and developments in the teaching methods used, violate the routine and turn around in addition to this opportunity to interact between students and professors, increase knowledge and information related to the course for students and professors, develop creativity skills, solve problems and make decisions for both parties, as well as raise the role of the professor in that Be active, positive and active in the educational process.

As for the second question, "Is there a statistically significant difference between the attitudes of physics branch students in the College of Basic Education towards the use of an open source e-learning management system (Moodle) according to the variable (gender, stage of study and computer experience)?" And the results there is a statistically significant difference when The level of significance showed (0.01) due to the influence of sex, and reached the value of alpha (2, 833) and the statement of marital differences is statistically significant between the use of mathematical averages in the background comparisons of the method of Haifa and in favor of the gender of the female, there is also a difference of statistical significance at the level (0.01) due to the effect The study phase that reached the alpha (value 2, 809) and the statement of marital differences is statistically significant between the arithmetic averages. The background comparisons of the Eve method were used in favor of the second stage, and there is also a statistically significant difference at the level of significance (0.01) due to the effect of computer experience, Where the value reached (2, 815), and to show the statistically significant differences between the arithmetic averages. Dimensional comparisons were used in a cognitive manner in favor of those with computer experience.

**Third: Recommendations:**

1. The necessity of using the (Moodle) system in teaching and education because of its positive communication with students and students' communication with each other.
2. The necessity of using the Moodle system in teaching and education because of its importance in focusing on the student, which makes him retain the academic subject for a long time.
3. Activate the electronic courses on the (Moodle) system in the scientific departments, colleges and universities that do not use this system.
4. Work to establish training courses for students who did not take courses in the use of the (Moodle) system.
Fourth: Suggestions:

1. Study the effect of the Moodle system on other variables.
2. Conducting a comparative study between the use of the (Moodle) system in the colleges of the University of Maysan and its colleges and other Iraqi universities.
3. Conducting a study on system implementation obstacles (middle school and middle school) and how to reduce them.

REFERENCES

First: Arab sources:

Abdul Karim Salwa Al-Saeed (2011): The role of e-learning in improving the quality of digital content for academic programs (an evaluation study of the application of the model program in the Department of Library and Information Science at King Abdulaziz University). College of Arts and Social Sciences at Sultan Qaboos University), paper presented to the second international conference on e-learning and distance education, the National Center for e-learning and distance education, Riyadh, Saudi Arabia.
Abdul Majeed, Ahmad Muhammad (2013): Using the e-learning management system (BlackboardIn) in training teachers of teachers at the Faculty of Education at King Khalid University to develop electronic communication and production of digital educational materials, Journal of International Educational Specialization, Volume (2), No. (11) Nov.
Al-Arman, Abdullah Muhammad (2009): The effect of using e-learning on the achievement of students of the biomedical devices course at Palestine Polytechnic University, published doctoral thesis, Faculty of Education, Ain Shams University, Cairo, Egypt.

Ayyad, Samir Abdullah (2008): Employing virtual learning environments in building electronic courses in the blackboard system in university education, college of education, Al-Azhar University, Egypt.

Dahlan, Othman Mazen (2012): Effectiveness of a program reinforced with the (Moodle) system to provide basic education students with Al-Azhar University with daily planning skills and their attitudes toward it, published Master Thesis, College of Education, Al-Azhar University, Gaza, Palestine.


Siyam, Muhammad Hassan (2013): Applications of virtual e-learning and training in virtual electronic universities, the Syrian virtual university model in e-learning and training (experience of reality and development prospects), Journal of the Federation of Arab Universities for Education. Psychology, Volume (11), No. (4), Syria.

Zaitoun, Hassan Hussein (2015): Teaching design (a systematic view), second floor, Dar Al Alam Al-Qutub, Cairo, Egypt.
Zaza, Mohamed Ibrahim (2012): Blackboard E-Learning Management System (Blackboard), paper presented to the International E-Learning Conference in the Arab World, Cairo, Egypt

Second : Foreign sources: