The effectiveness of some e-blogging patterns on developing the informational awareness for the educational technology innovations and the King Abdul-Aziz University postgraduate students' attitudes towards it.

Ashraf A. Zeidan[1,2] ; Waleed S. Alhalafawy[1,3]; Marwa Z. Tawfiq[3] and Wael R. Abdelhameed[2]

[1]Department of Education Technology, Faculty of Education, King Abdulaziz University, Jeddah, KSA.
[2]Department of Education Technology, Faculty of Education, Helwan University, Cairo, Egypt.
[3]Department of Education Technology, Faculty of Education, Ain Shams University, Cairo, Egypt.
azeidan@kau.edu.sa; welhlafawy@kau.edu.sa

Abstract: This research uses some of the electronic macro and Micro-blogging (EMACB) and (EMICB) to develop the informational awareness of the educational technology innovations (EDUTI) and the king Abdul-Aziz University postgraduate students' attitudes towards it. A two-Group experimental design was used: the control group (CG) which studies through the traditional activities and lectures (TRAC and LEC) and the experimental group (EXP-G) studies through the traditional lectures with (EMACB) and (EMICB) . The research sample consists of (60) students who are using The Internet and the e-blogging (EB) applications Perfectly,divided randomly into two equal groups. The research depended on two Tools : A cognitive achievement test to measure (EDUTI) and an attitude scale to measure the students' attitudes towards it. T-Test was used to compare between the two groups and to determine the significance of the differences. Findings revealed the effectiveness of the e-blogging systems on developing (EDUTI) and also on developing the students' attitudes towards it as a learning Style.
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1. Introduction

Before web 2.0, web 1.0 was prevailed over the world. Web 1.0 generally indicates to static web pages, which are hardly to be updated or to allow users to participate in the content. Web 1.5 indicates to dynamic web pages, which generate the content automatically through databases by content management systems (CMS). On contrary with web 1.0, web 1.5 allowed users to participate in the content. After that, web 2.0 has been prevailed, and in fact, it is more than dynamic web pages. Web 2.0 offers a large social network, which depends basically on users. Web 2.0 aims to transform the internet to a social system, which is more dynamically. This transformation changes the consumer learner to be a learner producer. In web 2.0, the user has become the responsible for the content. Also, web 2.0 focuses more on the content and the learner participation in the content production process, this responsibility gives the user the opportunity to be creative, which couldn't find in the real world (Rehman et al., 2013; Meethongjan et al., 2013).

During short time, web 2.0 has succeeded to bring more and more learners thanks to its advantages - including but not limit- the learner participation in building the educational content; whereas the learner is the major player in content building process (Haron et al., 2013). Web 2.0 applications help - by its various tools - in introducing various contents as well as they have a fast and easy performance through an easy user interface. it allows the learners to interact among each other and has real-time calling tools to inform the learner about the new published news, "in addition to what mentioned above, people generally like the power of say as well as they like the power of know and that what web 2.0 offers. Web 2.0 tools allow to the user to express his thoughts and to know about the new ideas and opinions of others." Anderson says (Paul, 2007; Al-halafawy and Tawfiq, 2014; Saba et al., 2014; Lung et al., 2014).

The e-blogging (EB) are the most important applications of Web 2.0, these applications allow the learners to have the opportunity of sharing and interaction about the educational content through allowing the learner to add various articles and comments (Selamat et al., 2010; Ahmad et al., 2014). We can say that by using it, science does not need devoted servants to publish the necessary educational materials. The e-blogging applications (EBAPP) allow the teacher to publish all what he desires on web 2.0 servers without needing for external sources. Also, web 2.0 applications are easy to use, which means that the teacher doesn't need to wait long time to take a specialized course to know how to use these applications. In addition, the teacher can edit any contents he wants through any connected computer without limits. Finally, (EBAPP) are various, which

gives the teacher freedom to choose the competent tools that works perfectly with various activities. (Gonzalez and Louis, 2008; Harouni et al., 2014; Younus et al., 2015)

What makes (EB) applications perfect for education and learning that they allow the learner to transfer from being a searcher for information to be creative in rebuilding the content that becomes more interactive from many aspects. We can say that (EB) applications have made the internet transfer from a passive publication phase to an active participation phase. This transformation has made the internet one of the largest knowledge depositories; where the learner can find most of information he looks for (Thompson and John, 2008; Jokisalo and Riu, 2009).

(EBAPP) are varied including micro-blogging (MICB) and macro-blogging (MACB). Each one of them has its distinctive characteristics, Where (MICB) only allows the learner to write about (140) letters, he cannot cross it to express his opinion about the educational subjects, while we find that macro-blogging allows the learner to use hundreds of letters which maybe extent to be complete articles to express his point of view about the educational subjects. (Kargar *et al.,* 2008; Luo and Gao and 2012)

Every pattern of (EB) has its unique characteristics. (MICB) helps to write the main idea in few words meanwhile (MACB) unleashes the learner; so he can write his different ideas and express his ideas in hundreds or maybe thousands of words. The advantages of every (EB) pattern in the educational situations must be searched.

Hereinafter, we are going to do in this research.

Table (1) blew shows the models of (EB) which are available via web Applications.

Table (1): Models of (MACB) and (MICB)

Serial no.	Blog application	Model of e-blogging	Function
1	Macro-blog(MACB)	Bloger	This platform allows users to have their own pages online. User writes long posts (articles). The articles are often text content which maybe supported by images, videos or any type of information. The posts are shown in chronology order. (http://www.blogger.com)
2	Micro-blog (MICB)	Twitter	This platform provides micro-blog services. Users can post small posts (tweets) about any subject with maximum 140 letters for every post. Users can send these tweets directly through tweeter application, SMS or instant chat application. (http://www.Twitter.com)

Taking into consideration the low level of the informational awareness for some postgraduate students about the innovations of the educational technologies that may be used in the different educational situations, which also can be used as an approach to develop the reality of education itself; so this research tries to use the macro-blogging and micro-blogging tools to develop an educational environment, which can be used to develop the informational awareness about the innovations of the educational technologies and develop the attitudes towards them, too.

2. Literature Review:

Web blogging (WB) consists of two words "Web + Log", which means Web register or log, it is abbreviated as blog. It is a "contents are updated constantly, and these contents have a chronological order" (Efimova and Fiedler, 2004), any web user can own his blog in few simple steps whether this blog is a macro-blog or micro-blog. The user can edit the varied contents, which he desires to publish and share them, so he is called a "blogger". Consequently, blogging is considered as an explicit expression of knowledge in terms of "posts or tweets" showing concepts and meanings that a blogger believes. (Yang, *et al.*, 2007, Therefore, we can say that "blogging" is a technology allows to share knowledge among learners and empowers them to publish their ideas as notes or diaries online without needing to know programming nor an advanced language". The e-blogging applications allow the learner to write his opinion and comments about the available data online (Gassmann *et al.,* 2010).

Blogging has characteristics, which help to use in the educational process, hereinafter some of them:

1- The learner freedom to review the previous posts by reverse recalling feature.

2- The abundance of rich links about one subject or one category external and internal.

3- The learner freedom about what he is reading or sharing.

4- Interaction among the bloggers whether through blogs or other connection tools.

5- Easy fast feedback systems among the bloggers.

6- Registering messages and comments by date and time.

According to technological view, (EB) is "a double system web application" but at the same time, "it is a new social model for building knowledge". Therefore, "(EB) is a technology used to build knowledge in a social framework. This model consists of three main characteristics as the following (Freire,2008; Rehman et al., 2011):

1- Technology: (EB) depends on "Pulling" the information from the learners instead of "Pushing" it to them, which turns learning from the normal model of traditional hierarchical gates to provide a non linear creative content.

2- Knowledge: (EB) challenges the strict laws of the intellectual property which don't encourage creativity. E-blogging systems use open source programs which allow access to varied contents. These contents are constantly updated, which leads to access the highest quality and larger quantity of contents and creative knowledge.

3- Users: the learner has been turned from a costumer of information to be an active organized user. The user creates new knowledge from the available contents through e-blogging systems.

Success of blogs is depended on three values, as the following (Boyle *et al.,* 2009; Saba et al., 2010):

1- The content value: by determining the patterns of information which a learner contributes in the e-blogging systems and determining the size of published texts and the way contents are organized.

2- The technology value: by determining the tools of publishing and storing information as well as searching and restoring it. Also, these tools offer users a sort of familiarity with internet usage.

3- The social values: by determining the number of the learner repeated posts and the accessibility to the blogging server and the membership in the blogging society.

We can outline some advantages of (EB) as the following (Kargar *et al.,* 2008; Al-Ameen et al., 2015):

1- Understandability: the macro-blogging information and contents should be clear, unambiguous and easy to understand.

2- Information: the sources of macro-blogging are reliable.

3- Re-representation: the macro-blogging information elements are shown and viewed in the same way in all pages, presentation is stable.

4- Completeness: Information and contents cover the e-blogging system subjects deeply and in circumlocution without providing non-valuable information.

5- Chronological order: the accessibility to information and content is easy as the chronological order is updated instantly.

6- Credibility: published information is true.

7- Unity: every page of the macro-blogging should focus on a unique case.

8- Availability: the macro-blogging systems make the accessibility to information easy and it allows calling information easily.

9- Referentiality: the macro-blogging systems indicate to varied information about the blogger.

10- The short time of accessibility: the accessibility to the first participation of the learner only needs short time.

2.1. Blogging patterns:

2.1.1. Micro-blogging (MICB):

(MICB) is one of the modern Web 2.0 technologies which allows the user to express his opinion in few letters about 140 letters as maximum. This pushes the learner to focus on the main information and to re-think about what he is writing since he only has few words to express his thought. Micro-blogging helps to give instant small updates for the learner and gives him more loyalty to the society. (Luo and Gao 2012).

(MICB) basically depends on a specific number of letters which are used by the learner to deliver a specific message. Micro-blogging services often offer about from 140 to 200 letters to be used to deliver the messages. This gives the users two lines of information to give instant updates. Also, it makes learner more loyal to his society. Twitter site is one of the main sites that offer micro-blogging services.

(MICB) has many advantages that encourage us to use in the educational situation, hereinafter some of them (Grosseck and Holotescu, 2008):

1.Collaborative writing: (MICB) encourages people to write as a type of entertainment, which pushes the learner to write varied posts about varied subjects.

2.Encouraging learner response: the teacher may use (MICB) to ask questions or give notes to learning groups about the educational subject or activities.

3.Project management: (MICB) helps the teacher to manage his project through blogging servers, which provides the learners with varied information.

4.Opinion assessment tool: (MICB) may be used in many of the academic situations whether to discuss a subject or to vote about an idea.

5.Provide a platform for beyond knowledge: Micro-blogging enriches the learner's thinking skills about what he is learning, which gives him better understanding and better ability to save.

6.Working as a conference or a part of workshop: (MICB) allows to whom cannot attend to an activity to express and share the opinions and ideas with others through blogging servers about the conference or workshop events and activities.

(MICB) is a server which we can use in the varied educational situations specially the situations of collaborative education. Instant short messages can be sent through (MICB) server to all participants. The messages show thoughts and opinions of users, which helps to develop the learners' thoughts and attitudes. (MICB) servers allow the participants to search in all messages were sent to the server. In addition, it allows creating sub-groups that may share messages only among them. (Holotescu and Grosseck, 2009)

Usages of (MICB) in the educational situations may help to enrich the traditional education environments as well as it may use to develop the learner skills and to motivate the learners who do not participate in the educational sessions. Micro-blogging may allow a learner to connect their learning to the diary situations, which they face out of the educational environment. This connection urges the active learning processes. (MICB) helps to maintain instant connection to the learning events and it can be used as an educational center. (Luo and Gao, 2012).

2.1.2. Macro-Blogging (MACB):

There is a difficulty to define (MACB) in short sentences because of its multiple aims. We can indicate to it in brief, as "a website called a blog, updated instantly and consists of posts ordered in a reverse chronological order, and allows the learner to write varied articles and the participants can comment on them" (Efimova and Fiedler, 2004).

(MACB) is a web application works through CMS. The simple form of it is a web page that contains articles dated and ordered chronologically. Also, it has a tool to archive old entries; every entry has an instant URL that can't be changed from the time of publishing, which allows the reader to review it later even if it wasn't available on the front blog page.

According to the previous definitions, (MACB) may be extent to be a complete article without a maximum limit of letters for what the learner desires to express, unlike (MICB) which has (140) letters as maximum and may extent to (200) letters in some applications, this advantage makes (MACB) go towards deep processing about the subjects, unlike (MICB) which focuses on the main thoughts and items.

(MACB) is based on three technological components; these components may be categorized to three main groups as the following:

1- Writing and publishing tools: they are a management system that depends on a database which allows users to enter texts and other multimedia through prepared templates. Also, the tools allow formatting the multimedia shown on the blog in addition to the learners' chronological posts order and categorizing their posts to be easy to access.

2- Reading blog\ collecting news tools: Macro-blogging servers do not depend only on the normal HTML to read and browse the blog, but also they depend on programming languages like XML which provides a tool like RSS which provides fast instant briefs for what was newly added to the blog without needing to browse all pages of the blog.

3- Searching and tracking tools: Macro-blogging servers provide searching tools inside the blog content. Also, it allows tracking links among the different blogs.

(MACB) can support the educational situations through:

1- Supporting connection processes whether inside or outside classrooms, also, it provides an open space to share knowledge and thoughts and to support the student's learning motivation.

2- Facilitating taking and publishing notes in any place on the blog and collecting comments on them, too.

3- Teaching the same curriculum in different ways. The learners can use it as a depository to the curriculum and it allows the students to share the digital learning units.

4- Improving the teacher's standard thinking, creative thinking, associative thinking and intuitive thinking skills, also, it encourages the teachers to use critical and analytical thinking.

5- Giving the learner the sense of having a private area to publish and express his opinion, in addition, it supports individuals to share their real experiences, it pushes the students for responding to the contained ideas and for supporting them with new ideas, and finally it provides a mixture of individuals and groups interactions in the same specialization.

2.1.3. The informational awareness of the educational technology innovations:

According to comprehensive development concepts, which aim to develop human conditions; awareness is the real entry to prepare the individual abilities, to gain some skills, to develop his feeling for freedom and develop his self-esteem up to gain the human perfection. In general, awareness has a group of aspects. These aspects consist the main definition of awareness, as the following:

1- Knowledge and information acquisition that represents the knowledge aspect.

2- Behavior and performance acquisition that represents the skill aspect.

3- Recognizing the meaning of knowledge and having a positive attitude towards the knowledge that represents the emotional aspect.

According to the comprehensive concept; the informational awareness which is connected to modern technologies means, understanding, recognizing, experimenting and use all modern discoveries and

innovations including devices and programs. These technologies may be involved in the educational process to develop the learner and teacher abilities, and to help them to interact with the educational process and solve problems. Also, it aims to improve the educational process effectiveness to keep up with fast the scientific growth and the technological developments. Above all, this guides the individual behavior to be interested in technologies.

The importance of the informational awareness comes from his ability to decrease technophobia, in addition to, its importance to support the individual's skills in using, designing and producing the technology. Also, the technological awareness helps to change the individual behavior to be a technology producer instead of a technology consumer. In addition, it prepares the individual instantly to work in professions connected to technology. The technological awareness reflects the high rate of technology usage in our life activities.

2.1.4. The attitudes towards of the educational technology innovations:

An attitude means a group of acceptance and rejection responses concerning a specific discussed matter. Therefore, the attitude contains readiness of the individual to respond intuitively without thinking or hesitation towards a specific matter. This matter usually is related to internal feelings. Therefore, the response belongs to the individual's emotional structure.

Attitudes are distinguished from other psychological variables acquired and taught by the surrounding environment. Attitudes are not hereditary; also they are various and differ according to the renewable variables. They are developed in the individual by the social situations and variables. They can be changed or modified, although they belong to the psychological stability. Finally, the learners' attitudes consist of the previous experiences. The individual's attitudes are connected to the current behavior and the future prediction.

The leak of user's faith in the educational values of the innovations comes from his unawareness about these values and that he has not had the opportunity to use or train on it during preparing to be a teacher. The researchers see that using social media in training the teacher affects on their attitudes. Change of attitudes towards technology reflects positively on usage of technology in teachers' professional growth, also it affects on their ways of teaching during the different educational situations (Sulong et al., 2010).

Without any doubt, the varied characteristics of the e-blogging which focus on the availability of the social connection and interaction, the accessibility to friends, instant updates of the content, improvement of writing skills and the availability of the active educational environment, all of this may help the learner to acquire positive attitude towards e-blogging. (Kayri and Çakır, 2009)

It is important to reconsider that, the success of a modern applied technology depends significantly on the user's attitudes towards this technology. These attitudes affect mainly on the effectiveness of any modern technology system, therefore, the success or failure of any electronic training system to achieve its purpose, depends significantly on trainees' attitudes. The attitudes may be the main reason to support or resist the technology renewal. Resisting of the technology renewal leads to resist using technology in the educational process in general. For these reasons, it is important to know the teacher's attitudes towards these modern systems.

2.2. Theoretical Framework:

The usage of e-blogging (EB) in education depends on many theories. The Constructive theory principles support the use of (MACB) and (MICB) applications. These applications aim - in their own structures - to find a type of social interaction among learners and to show current changes in learning society continuously. This helps to build a learner's cumulative knowledge which is the main purpose of the structural theory that considers knowledge is a result of social interaction among learners. (Witts, 2007)

Also, (EB) is related to the social learning theory (Vygotsky), which sees that learning is happens through participating with others, and the learners' interactions with others who have more knowledge or more abilities affect on their way of thinking and how they understand the different situations. "Vygotsky" considers that the learner learns when he receives insinuations, guide information and thinking aids more than if he was left alone to discover and learn the new concept or knowledge. Therefore, the social learning theory is a basis to understand how the e-blogging can be used to help and support the learner socially and continuously. The learner can acquire knowledge if he is helped to build a structure to put the new information, especially if it comes in social context.

Also, there is a clear connection between blogging and the motivation theory that focuses on three motivations as: self-motivations, a society commitment motivation and the external motivation; these motivations encourage learner to participate in varied training processes, which come along with what the e-blogging applications do. (EB) applications can develop the learner's self-motivations through giving him varied opportunities to share his thoughts and participation on the technology platform which he can reach any time. This availability gives the learner the sense of enjoyment. Also, (EB) application can

develop the learner's special motivation of the society commitment; as it gives him the opportunity to do his commitments towards his society, which connects to the collaborative content of the blog. Sharing the content with others helps the users to develop their abilities. Finally (EB) applications develop the external motivations; these motivations focus on the learner's self-development and developing his skills and ability. The availability of the platform that has varied multimedia and files can help the learner to use and interact individually or collaboratively without limits, this helps the learner to develop himself, because of the availability of these education means. (Nov and Ye, 2008)

3. Hypotheses:

The research has also hypothesized the following:

1. There's a statistically significant difference at the level of (0.05) between the mean scores of the control group individuals who use (TRAC and LEC) and the mean scores of the experimental group individuals who use (LEC, EMACB and EMICB), in the post-test of the informational awareness due to the original effect of (EB) system.
2. There's a statistically significant difference at the level of (0.05) between the mean scores of the control group individuals who use (TRAC and LEC) and the mean scores of the experimental group individuals who use (LEC, EMACB and EMICB) in the post-attitudes scale towards the innovations of the educational technologies due to the original effect of the (EB) system.

4. Methodology:

4.1. Design:

This research belongs to the quasi-experimental researches to measure the effect of an independent variable on some dependent variables. The researchers used a tow-group experimental design, which has a control group and an experimental one. The experimental group studies by the traditional lectures with the e-blogging systems (LEC, EMACB and EMICB), while the control group studies only by the traditional Activities and lectures (TRAC and LEC), Table (2) shows the experimental design of the research.

Table (2): The experimental design of the research

Groups of the research	Independent variable	dependent variables
(EXP-G)	(LEC, EMACB and EMICB)	Info-awareness for innovations. attitudes towards innovations
(CG)	(TRAC and LEC)	

4.2. Sample:

The sample consists of (60) postgraduate students of the faculty of education - king Abdul-Aziz university. They were chosen among (90) students participated in a questionnaire about the usage of the (EB) applications. Questionnaire showed that the students have (EB) applications skills (both (MACB and MICB). Students were divided into the experimental group (EXP-G) and the control one (CG) , (30) students for each.

4.3. Tools:

1- A cognitive achievement test to measure the informational awareness about some of the innovations of the educational technologies - mobile learning, virtual museums, social media, virtual reality. The test consists of (60) items divided into two types of questions, right or wrong questions and multiple choice questions.

2- An attitude scale towards the innovations of the educational technologies; consists of (40) items, divided into two headlines: the importance of the innovations of the educational technologies, and the obstacles of the innovations of the educational technologies usage.

4.4. The statistical method :

According to the experimental design of the research, T- test was used for the following reasons:

1- To ensure the equality of the both groups in the pre-test for the achievement test and the pre-attitudes scale towards the innovations of the educational technologies.

2- To compare between the control group and the experiential one in the post-test for the achievement test and the post-attitudes scale towards the innovations of the educational technologies.

4.5. Procedures:

4.5.1. The Analysis Phase:

In this phase, the learners' characteristics were determined, and the e-blogging applications were defined. Also, the general purposes of the system were defined which focused on developing the informational awareness and the attitude towards the innovations of the educational technologies.

4.5.2. The Design Phase:

This phase focused on defining the procedural purposes, the appropriate content to these purposes and the strategies and activities which will be used, and contributing them across a structural map for (MACB) and (MICB) systems, finally designing the (EB) tools as the following:

- Creating an account on Twitter under the name of "Tec.innovations" available at: https://twitter.com/tec.innovations

- Creating an account on Blogger under the name of "the technological innovations" available at: http://waelramdan.blogspot.com/2012/01/blog-post.html
- Both accounts were configured based on their special settings to allow the students to post and share according to the instructions declared on each of the front blog.

The rules of (EB) on each blog were prepared to achieve the purposes of the research. The researchers prepared some posts about the innovation topic then allowed the students to participate, some of these posts were pictures of some innovations to urge students to participate and comment.

4.5.3. The Development Phase:

This phase focused on developing each account (MACB and MICB), also producing the digital text of the digital content, and some pictures of the innovations of the educational technologies. In addition to the technical and educational review processes for the blogging system components.

4.5.4. The Implementation Phase:

During this phase, the pre-test and the pre-attitude scale were applied. A meeting with the students was held to explain the nature of the experiment, and then MACB and MICB processes were activated. The connection and the interaction among the learners were done. The students were encouraged to write posts, in addition to watching the varied posts and giving the feedback. Finally, the post-test and the post-attitude scale were applied. The findings were collected to be analyzed.

5. Findings:

5.1. The findings of the informational awareness for the innovations of the educational technologies:

To examine the first hypothesis concerning to compare between (EXP-G) which used (EB) in addition to the traditional lectures and (CG) which used only the traditional lectures, and this related to the learner's cognitive achievement for some of the informational awareness; T-Test was used to define significantly the difference between them. Table (3)

Table presents descriptive statistics of the results of the experimental and control groups and Table (4) shows the significance of differences between the average scores for the two experimental and control group.

Table (3): the mean, the standard deviation and "T" value of the informational awareness for the innovations

Group	Number	Means	Std.Dev	T	df	Sig.
CG (TRAC and LEC)	30	29.22	1.33	18.66	58	Sig. at (0.05)
(EXP-G) (LEC and EB)	30	38.7	2.29			

The findings in table (3) indicate that there is a statistically difference at the level of (0.05) between the mean scores of (EXP-G), which used web blogging in addition to the traditional lectures, and (CG) in favor of the experimental group; whereas the mean scores of (EXP-G) is (28.07) while the mean scores of the (CG) is (29.22) and T value is (18.66).

5.2. The findings of the attitude scale towards the innovations of the educational technologies:

To examine the second hypothesis concerning to compare the experimental group, which used the e-blogging in addition to the traditional lectures, and the control group which used only the traditional lectures related to the learners' attitude towards the innovations of the educational technologies, T-Test was used to define significantly the difference between them. Table (4) shows the T value for the both groups, the experimental group and the control one.

The findings in table (4) indicate that there is a statistically difference at the level of (0.05) between the mean scores of (EXP-G), which used the e-blogging in addition to the traditional lectures, and (CG) in favor of the experimental group; whereas the mean scores (EXP-G) is (116.22) while the mean scores of (CG) is (88.20) and T value is (19.55).

Table (4): the mean, the standard deviation and "T" value for attitude scale

Group	Number	Means	Std.Dev	T	df	Sig.
CG (TRAC and LEC)	30	88.20	4.52	19.55	58	Sig. at (0.05)
(EXP-G) (LEC and EB)	30	116.22	3.88			

6. Discussion:

The effectiveness of the e-blogging on developing the informational awareness for the innovations of the educational technologies:

This result, which indicates to the effectiveness of (EB) on developing the informational awareness for the innovations of the educational technologies, is due to the large social interactions on (EB) applications. Most of these interactions connected to build and participate in special contents concerning to the technological innovations, which the system aimed to develop the awareness. This reflected significantly to develop the informational awareness of the research sample. Also, the learners participated in reading and writing many articles about the innovations, this led to develop the learners' awareness about these innovations. Also, tweets played a great role in confirming some positive aspects and the main information concerning to these innovations. All of these played a part in developing the informational awareness. Also, the open discussions

which were held through blogging systems played a part in developing the learners' awareness.

In order to the scientific theories, the researchers related this finding to the e-blogging system designed on the principles of the constrictive theory which considers that knowledge cannot be taught negatively but it is built positively through the interaction between another experts with peers. In addition, learning through constrictive environments is a cumulative active integrated contemplative purpose-oriented process. Therefore, (EB) offers varied opportunities of learning depending on a type of social interaction and the connection among learners. It gives longer time for interaction which reflected on increasing of the awareness rates, also, it reflected on the learners' motivations, self-commitments and their social commitments to participate in building the collective awareness as the motivation theory indicates.

6.2. As to the effectiveness of the e-blogging on developing the attitudes towards the innovations of the educational technologies:

This result, which indicates to the effectiveness of (EB) systems on developing the learners' attitudes towards the innovations of the educational technologies, is due to (EB) system that gives a great role to the learners to build the learning content. In addition, the learner is the major player in building the learning content and subjects. The e-blogging system allows the learner to express his opinion and comment on the content as he likes. The availability of the social connection and interaction, the easy accessibility to friends, the instant content updates and watching the learners' results in the real-time all of these features helped in creating the learner's positive attitudes towards the innovations of the educational technologies. Considering that, the system has a major help in developing the learners' awareness about the technological innovations. Therefore, it helps in developing the learners' attitudes towards the innovations of the educational technologies.

Also, this result may be interpreted in the light of the principles of the motivation theory which indicate that the learner's positive attitudes towards the innovation of the educational technologies based on a group of motivations like: self-motivations depended on the personal-enjoyment; as (MACB and MICB) applications offered varied processes to produce and edit the content. In addition, these applications allow the learner to express his thoughts and contributions comfortably, which generated a feeling of self-enjoyment. Self-enjoyment created positive attitudes towards the technological innovations which the learner learns about. Also, the e-blogging systems give the learner the opportunity to do his educational society commitments. In fact, the learner could build and develop contents with the other learners. Also, (EB) systems offers a group of external motivations which made the learner feel that he could develop himself professionally, and this reflected positively on his attitudes towards the innovations of the educational technologies

7. Conclusion:

The findings of this research confirmed the effectiveness of (MACB and MICB) systems on developing the learners' informational awareness and on developing the positive attitudes towards some subjects they study, especially when (EB) systems are mixed with the traditional lectures. The mixture creates a system that has the advantages of the traditional education and (EB) applications. Also, it helps to avoid all the obstacles and problems facing the regular education environments. However, the researchers suggest that the future trends related to the e-blogging patterns studies should be related deeply to studying the relationship between the blogging patterns and a varied number of learners' learning styles in different grade levels.

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