Developing E-commerce knowledge and Emotional intelligence using Microlearning

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Abstract

E-commerce design withiest an important requirement of the labor market and one of the knowledge that must be available to graduates of commercial technical secondary education, as it helped to provide a lot of job opportunities, reduce the unemployment rate, double productivity rates, and made an important role for its workers in the field of development, and since micro-learning plays an important role in teaching and learning, as it turned from extended learning to micro-learning, where learning content is provided in small units over time and as needed, as well as learning and application What is learned in small and focused steps, concentrated learning (3-5 minutes), and due to the lack of e-commerce knowledge in commercial secondary education courses, appropriate research tools have been prepared for first-year commercial secondary students, which were represented in building a list of e-commerce knowledge, the knowledge test, the emotional intelligence scale, and the researchers in this research followed the semi-experimental design with one experimental group, With the application of before and after the research tools, a study sample was formed from (30) students from the first grade of commercial secondary school at Badr Commercial Secondary Mixed School, and the tools were applied over a period of three months, the results of the study proved the effectiveness of microlearning in developing e-commerce knowledge and emotional intelligence.

Keywords: E-commerce knowledge, emotional intelligence, microlearning, commercial technical secondary schools

1. INTRODUCTION AND BACKGROUND TO THE STUDY:

At the beginning of the early seventies of the last century, the emergence of e-commerce applications began, the most famous of which is the application of electronic money transfers Electronic Fund Transfers, but the extent of this application did not exceed giant commercial institutions and some small companies, and then came the electronic data exchange (EDI), which expanded the application of e-commerce from just financial transactions to other transactions, and caused an increase in companies contributing to this technology from financial institutions to factories, retailers and service institutions And others, such as buying and selling shares and travel tickets on the Internet and on private networks (Al-Attar, 2021, p. 9).

The term e-commerce refers to commerce via the Internet, and we use it in various activities of our daily lives and is closely related to what we are going through in our time of revolution in the field of information technology and benefited us a lot in the Corona crisis, through which all medical products were marketed, achieved safety, and limited mixing between people.

 The Organization for Economic Cooperation and Development (OECD) defined e-commerce as: It includes all forms of commercial information that take place between companies or individuals, which are based on the electronic exchange of data, whether written, visual or audio, in addition to including the implications of the process of exchanging data and commercial information electronically, and the extent of its impact on institutions and processes that support and govern various business activities (Al-Ashrah, Malika, 2018, p. 6).

It was defined (Al-Salamouni, 2014, p. 36) as: a pattern of trade exchange of goods, services and information through networks and other technological means, whether delivered via the network or in the traditional way, and the use of its tools to place advertisements, establish relationships with customers and negotiate with them, in order to achieve their happiness and satisfaction with the possibility of collective interaction with other customers, and thus successfully conclude deals, follow up the payment of financial obligations electronically, deliver goods and provide after-sales services.

 As noted by (Laudon & Trever, 2020, p. 10) e-commerce has supported and helped businesses (especially those with a narrow scope such as small businesses) reach and establish a wider presence in the market by providing cheaper and more efficient distribution channels for their products or services. From clothes and coffee makers to toothpaste and even toys right from the comfort of their homes.

(Hanafi, 2022, p. 3) defined e-commerce as the process of buying, selling, or exchanging products, services, or information via a computer, while e-business represents a broader definition that includes not only the purchase and sale of goods and services, but also customer service, cooperation with business partners, and conducting electronic transactions within an organization.

    From the above, the researchers believes that there is no specific definition agreed upon for e-commerce, but there are various and multiple definitions, and through the previous definitions we conclude that e-commerce represents "an activity of commercial activities that are based on electronic interaction between the parties to

the interaction, through electronic means of communication that act as a medium for the offering, sale and distribution of various goods and services, and payment through electronic payment tools.

Microlearning is one of the recent trends in the use of technology in education, so The eLearning Guild, an organization that pays great attention to e-learning environments by organizing specialized conferences in the field: By preparing its conference in 2019 under the title (Micro-Learning and Training Summit), it explained that it still needs a lot of studies and research that may help draw a clear picture of the extent of its educational contributions, and the positive effects it may provide to the elements of the training environment in general, and the trainer and trainee in particular, They are the elements of the educational process (Abdel Hamid et al., 2023, p. 261).

(Scaglione 2019, p. 17) stated that there are many reasons that led to the spread of microlearning, the most important of which is that micro education represents the best solution for developing digital content in a short time and at a lower cost to the teacher and the learner, and the development and spread of mobile devices, laptops, smartphones, and other tablets contributed to the use of microlearning.

(Zaher, 2021, p. 165) indicates that microlearning is a learning strategy that uses software, networks, tools, and technological devices, and includes the production and delivery of short, focused and student-led educational clips under the guidance of faculty members, designed to meet students' needs and achieve specific learning outcomes interactively in appropriate and short time.

While (Taylor, Hung, 2022, p. 3) explained that microlearning through which the content of learning is divided into small, focused, and interesting parts that increase students' motivation to learn.

(Betty Ogange, Sanjaya Mishra, 2021, pp. 11-14) summarizes the benefits of microlearning in: Easy access from all mobile devices at any time, from anywhere, Shortened learning time and therefore less effort for the learner, increasing his attention and motivation to learn, Providing small structured contents and updating them continuously, employing many strategies and tools that help better learning such as: competitions, video clips, line drawings, animations, interactive games, and others, Meeting the needs of the learner Diverse, related to the cognitive, skill and emotional aspects, Bridging the information gaps of individuals quickly, the freedom of the learner, and his reliance on self-directional learning, helps the learner's independence, and increases his self-confidence, increases the learner's interaction with the learning content, and the ease of understanding, practice and retention, the possibility of using it individually or cooperatively between colleagues, enhances cooperation between learning and life, the possibility of using it in electronic and blended learning environments, and the possibility of developing and updating it easily, and easily.

Technical education in Egypt is one of the main tools to achieve comprehensive development programs, but it is considered the locomotive of development, and an important pillar of the education system, as it seeks with its various types to prepare the skilled workforce necessary to serve the economic and social development plans of the state, as it flows directly into the labor market, and the main problem that the

system suffers from Education, general and university, is the abundance of information and the magnitude of the books taught by the learner, and is required to understand and absorb, without benefit, and microlearning is the appropriate solution to this problem, as it is presented to learners in the form of short units, of 3-5 minutes, focused on one concept or specific skill, which facilitates learning for learners, and saves effort, time and money, and therefore microlearning is the future of learning in the world, and by studying the current reality of commercial technical education courses shows Lack of e-commerce-related knowledge necessary to develop the e-commerce knowledge necessary for graduates of commercial technical secondary schools to meet the challenges and requirements of the labor market.

The researchers believes that the current research seeks to overcome the challenges facing technical education by providing high-quality education at the level of the teacher and curricula and keeping pace with teaching and learning systems to international standards, this research is going in the same direction through the use of micro-learning as it represents the future of teaching and learning in the world because of its advantages and benefits to the learner; An ideal solution to eliminate unemployment because of the multiple and diverse jobs it provides.

2. PROBLEM OF THE STUDY

From the above, the problem of the current research is limited to the lack of current curricula to meet the demands and needs of the labor market, modern technological developments, and the lack of e-commerce knowledge in the curricula of commercial secondary schools.

3. QUESTIONS OF THE STUDY

What is the effectiveness of microlearning in developing e-commerce knowledge and emotional intelligence among commercial high school students?

The following questions arise from it:

1- What e-commerce knowledge is needed for commercial high school students?

2- What is the current reality of e-commerce knowledge in commercial secondary education curricula?

3- What is the effectiveness of microlearning in developing e-commerce knowledge as a whole among commercial high school students?

4- What is the effectiveness of distance microlearning in developing emotional intelligence as a whole among commercial high school students?

4. SIGNIFICANCE OF THE STUDY

The present study is significant as it attempts to:

1. Provide a list of e-commerce knowledge to be developed among commercial high school students.

2. Designing a learning environment based on micro-learning based on educational technology innovations and various digital activities to achieve e-commerce knowledge among commercial high school students.

3. The current study can contribute to providing the field of commercial science education with a list of e-commerce knowledge to use in training learners to successfully engage in e-commerce.

4. Current research introduces a scale of emotional intelligence.
5. The current study can contribute to the development of an important area of multiple intelligence by providing a measure of emotional intelligence to identify students 'attitudes towards e-commerce.

5. TOOLS OF THE STUDY:

The following tools have been prepared and presented to a group of arbitrators in the field of curricula and methods of teaching commercial sciences, educational technology, and psychology:

1- A test to measure students re e-commerce knowledge.

2- Emotional intelligence scale to measure the level of emotional intelligence in e-commerce knowledge.

3- Designing a learning environment based on micro-learning based on educational technology innovations and various digital activities to achieve e-commerce knowledge among commercial high school students.

6. METHODOLOGY OF THE STUDY

The current research aimed to design a learning of micro-learning based on educational technology innovations and various digital activities and measure their effectiveness in developing e-commerce knowledge and emotional intelligence among commercial secondary school students, and to achieve the research goal, the researchers followed the mixed research approach, which combines quantitative and qualitative interpretation of data and includes: Using the descriptive approach: To set up an e-commerce knowledge list And the scale of emotional intelligence necessary for students of commercial technical secondary schools by referring to previous research and studies that dealt with e-commerce knowledge, the use of the job analysis approach by analyzing the functions related to the field of study (e-commerce) through three main methods (office method, field method, arbitrators team method), The use of the ethnographic approach: through the use of the case study method Case Study, the use of the quasi-experimental method: Quasi-Experimental Metholodgy to identify the effectiveness of the independent variable, which is microlearning, in the development of e-commerce knowledge.

The current research relied on providing micro-learning content in multiple ways to display content, including electronic games, interactive videos, interactive digital activities, interactive infographics, audio clips, educational blogs, interactive e-books, cartoon videos, educational platforms, simple texts, and images, and they will be available and available to students anytime and anywhere.

The following table shows the experimental design of the study.

Table (1) Experimental Design of Research

Pre-Assessment	Experiment	Post-Assessment
1- Pain Knowing Test. 2-Emotional intelligence scale.	Micro-learning Experimental treatment	1- Knowledge test. 2- Emotional intelligence scale.

To answer the first question: What e-commerce knowledge is needed for business high school students?

The researchers prepared a list of e-commerce knowledge and the aim of the e-commerce knowledge list was to determine the e-commerce knowledge that must be available to commercial technical secondary school students by determining the degree of importance of each skill, an initial list of e-commerce knowledge was prepared through the study and analysis of research and studies that dealt with E-commerce and meeting some academic specialists in the field of e-commerce, the initial list was prepared in the form of a questionnaire that did e-commerce as shown in the following table:

Table (2) Initial List knowledge E-Commerce

soap opera	Main knowledge	Sub-knowledge
1	Ecommerce Basics	20
2	Consumer behavior and principles of e-marketing	18
3	E-Commerce Infrastructure	13
4	E-Business Security Systems	13
5	E-Business & E-Auctions	11
Total	(5)	(75)

The researchers have prepared a questionnaire that includes the previous knowledge as follows:

- Classification of e-commerce into (5) key knowledge.
- Classification of sub-knowledge into (75) AD sub-knowledge.
- This questionnaire includes an ascending grading scale that starts from unimportant to extremely important.
- The gradient degrees of importance from (0-4) are as follows:

Not important (0), somewhat important (1), task (2), very important (3), very important (4).

- The arbitrators were asked to mark () in front of each knowledge to determine the necessity of its importance to commercial high school students. An example of this was given at the beginning of the questionnaire.
- The questionnaire includes an open-ended question about "other acquaintances" that you would like to add.

The main objective of the questionnaire is to collect information and data on e-commerce knowledge and then build a final list of knowledge that must be available to students of commercial technical secondary schools, so the questionnaire was presented to a group of arbitrators, who are a group of faculty members in the field of curricula and methods of teaching commercial sciences, a group of mentors and teachers of commercial subjects , a group of workers in the field of E-commerce.

To ensure the stability of the questionnaire, it was distributed to a sample that included (20) professors in the field of curricula and teaching methods, some commercial science mentors and some workers in the field of e-commerce in the first week of August 2021, then the questionnaire was collected, and after (25) days it was distributed again to the same sample and after unloading the responses to the

first and second applications , the correlation coefficient was calculated using the statistical package SPSS V 21 and the correlation coefficient = (0. (92) Approximately, this percentage indicates the stability of the questionnaire in the future and the obtaining of reliable results.

The questionnaire was applied to a sample of (25) professors of curricula and methods of teaching commercial sciences, mentors and teachers of commercial sciences, and workers in the field of e-commerce.

The average degree of importance for each knowledge was calculated and then the percentage of the average degree of importance was determined, and by noting the average degree of importance and the percentage of the initial e-commerce knowledge list, we find a high percentage of the importance of the knowledge contained in the list , whether main or sub-list, where the importance of any main knowledge was not less than (95%) and any sub-knowledge was not less than (90%) None of the arbitrators added any main or sub-knowledge to the list of knowledge and this indicates that the list includes all e-commerce knowledge.

By summarizing the results of the application, the e-commerce knowledge necessary for commercial high school students to reach the final list of e-commerce knowledge was identified, which consisted of (5) main knowledge and (75) sub-knowledge.

To answer the second question, what is the current reality, why is e-commerce in commercial secondary education curricula?

The researchers took the following steps:

1- Analyzing the content of commercial education curricula in commercial technical secondary schools to determine the aspects of learning associated with the knowledge of e-commerce included in them:

Analysis sample: Commercial education curricula in commercial technical secondary schools, specifically the marketing course for commercial technical secondary school students in the three grades, after preparing the e-commerce knowledge list.

In this study, the list of knowledge and skills for marketing courses for commercial technical secondary school students in the three grades was used as a unit analysis tool, where the list of knowledge included (51) main knowledge**,** (220) sub-knowledge, and the list of skills included (3) main skills, (9) sub-skills.

To ensure the objectivity of the analysis, the researchers analyzed the marketing courses for the three grades of commercial technical secondary education twice by the researchers with an interval of (25) days in order to reduce the percentage of remembering the results of the first analysis of the courses, and after completing the second analysis, the researchers calculated the stability using the following equation (Holsty):

C.R= $\dfrac{2M}{M1+M2}$

Whereas:

C.R is the equation for stability.

M: The number of categories agreed upon in the two analyses.

M1: the number of categories resulting from the first analysis.

M2: the number of classes resulting from the second analysis.

The following table shows the researcher's findings.

Table (3) Content Analysis Results

Categories	First analysis	Second analysis	Iterations agreed in the analysis	constancy
Knowledge	271	270	260	96%
Skills	12	10	10	91%
Total	283	280	270	96%

It is clear from the previous table that the content analysis has a high degree of stability.

To verify the validity of the analysis of the content of the courses, another colleague analyzed the same content at the same time as the researchers, and then the coefficient of agreement between the two analyzes was calculated using the following equation

Table (4) Coefficient of Agreement and Difference for Content Analysis

Analysis Categories	The researcher's first analysis	The second analysis is another researcher	Agreed iterations in both analysis processes	Points of difference	Compact coefficient
Knowledge	271	270	260	11	96%
Skills	12	10	10	2	83%
Total	283	280	270	13	95%

It is clear from the previous table that the content analysis has a high degree of honesty and by studying and comparing the content of marketing courses for the three grades of commercial technical secondary schools with the final list of the e-commerce that was reached, it became clear as follows: The marketing content for the three grades of commercial technical secondary schools does not include the main knowledge that must be available in e-commerce knowledge (basics of e-commerce. Consumer behavior and e-marketing - e-commerce infrastructure - e-business and e-auctions) Based on the analysis of the content of marketing courses for the three grades of commercial technical secondary schools, it is clear that the inadequacy of commercial curricula and the lack of knowledge of e-commerce are evident.

To verify the validity of the following hypothesis, which states that: There is no statistically significant difference at the level of?

(0.05≥ α) Among **the average scores of the experimental group students in the pre- and post-applications of the knowledge test as a whole among commercial secondary school students.** The researchers designed a test consisting of (4) questions with a total of (61) single, the total scores scheduled for the test (80) degrees, as well as the researchers provided a list of e-commerce knowledge such as (the emergence of e-commerce - e-commerce tools - consumer behavior), and the researchers used the T test for the associated groups Paired-Samples T Test To detect the difference between the two measurements (using SPSS v.21), scale the ETA square "η^2" to determine the size of the independent variable on the dependent variable.

Preparing the emotional intelligence scale for e-commerce knowledge for first-year commercial secondary students, after reviewing the following measures:

- Shot Modified Scale of Emotional Intelligence prepared by (Nicolas Schott, John Malouf, Navgot Polar) translated by: Mahmoud Ali Moussa in 2011.
- Emotional Intelligence Scale for University Students prepared by (Samia Al-Ansari, Helmy Al-Fil, 2009).
- Emotional Intelligence Scale prepared by (Mr. Salamouni, 2005).
- Modified emotional intelligence scale for secondary students, prepared by (Nabil Zayed, 2009).

The researchers was able to benefit from the aforementioned measures in the preparation of the current scale has consisted of the scale in its initial form of (58) phrases distributed on five dimensions:

1- Emotional knowledge.

2- Emotion management.

3- Regulation of emotions.

4 – Empathy.

5- Social communication.

The aim of the scale is to determine the levels of emotional intelligence in the knowledge of e-commerce among students of commercial technical secondary schools in the light of some behavioral goals expected of learners, and to verify the sincerity of the arbitrators, the researchers presented the emotional intelligence scale to a group of arbitrators specialized in the field of psychology, mental health and psychological counseling, and asked them to express an opinion on the appropriateness of phrases for first-year commercial secondary students, as well as determine the extent to which each phrase belongs to the dimension under which it falls, and make observations On its wording, has been retained on the phrases that got an agreement rate of more than 90% and modify the wording of some other phrases that the arbitrators asked to amend, and thus became the scale in its final form consisting of (58) phrase**, and the following specifications of the Emotional intelligence scale:**

Table (5) Specifications of the Emotional Intelligence Scale for E-Commerce Knowledge

Dimension	Phrases	Number	Its numbers	Total
Emotional knowledge	Positive phrases	9	1-2-3-4-5-8-9-10-12	9
	Negative statements	3	6-7-11	3
Emotion Management	Positive phrases	9	14-15-16-17-18-19-20-21-22	9
	Negative statements	3	13-23-24	3
Emotion regulation	Positive phrases	9	25-26-28-30-31-32-33-35-36	9
	Negative statements	3	27-29-34	3
empathy	Positive phrases	10	37-38-39-41-42-43-44-45-46-47	10
	Negative statements	1	40	1
Social Media	Positive phrases	9	49-50-51-52-54-55-56-57-58	9
	Negative statements	2	48- 53	2
Total		58	-------------	58

The exploratory experiment of the emotional intelligence scale the researchers experimented with the emotional intelligence scale on another sample of the research sample, but it is from the same original community and the number (30) students of the first grade of commercial secondary school and the goal of conducting the exploratory experiment of the scale to:

- Calculate the stability of the emotional intelligence scale.
- Determine the appropriate time for the emotional intelligence scale.
- Internal honesty of the emotional intelligence scale.

From the results of the exploratory experiment, it was possible to determine the following:

- Time of the Emotional Intelligence Scale:

To determine the appropriate time for the emotional intelligence scale, the time it took students to answer the statements of the scale was recorded, and the average time of the students' response to it was calculated, as it amounted to (30) minutes, and thus the total time for the application of the emotional intelligence scale is (30) minutes, and this was done.

3- Preparing the emotional intelligence scale in its final form:

After completing the preparation of the emotional intelligence scale for e-commerce knowledge and ensuring its truthfulness and calculating its stability, the emotional intelligence scale in its final form became composed of five dimensions, (58) phrases and is applicable to measure the level of emotional intelligence for first-year commercial technical secondary students in e-commerce knowledge.

To verify the validity of the following hypothesis, which states that: There is no statistically significant difference at the level of (0.05≥ α) between the average scores of the **experimental group students on the pre- and post-applications of the emotional intelligence scale as a whole**, the researchers designed a scale consisting of (5) main dimensions with a total of (58) statements, the total scores prescribed for the scale (290) degrees .

7. RESULTS

According to what was presented in the previous methodology of designing the knowledge test, designing the emotional intelligence scale, verifying its truthfulness and the stability of the tools, and using the mixed approach after conducting experimental treatment and applying the knowledge test and the emotional intelligence scale, the research results in their entirety indicate the effectiveness of using microlearning in developing e-commerce knowledge and emotional intelligence, as shown in the following tables:

Table (6) the value of "T" and its statistical significance for the difference between the average scores of the experimental group students in the pre- and post-applications to test knowledge related to e-commerce competencies as a whole.

The Collection	volume Sample	Arithmetic mean	Standard deviation	degree Freedom	Significance level	value "T"	Significance At level (0.05)
Experimental Tribalism Experimental dimensionally	30 30	11.1 75.2	3.9 1.3	29	0.0001	87.9	Statistically significant

The results of Table No. (6) Indicate that the difference between the average scores of the experimental group students before and after the knowledge test related to e-commerce competencies as a whole is a statistically significant difference at the level of (0.05) in favor of the post-application, where the calculated value of "T" was statistically significant at the level of significance (0.05).

Accordingly, the **first** zero hypotheses of the research hypotheses **was rejected**, which states: **"There is no statistically significant difference at the level** of **(0.05≥ α) between the average scores of the experimental group students in the pre- and post-applications of the knowledge test as a whole among commercial secondary school students."**

From the above, it is clear that the independent variable (distance micro-learning) has a significant effect on the dependent variable (knowledge associated with e-commerce competencies as a whole), but it does not indicate the size of the effect or the degree of the relationship between the two variables, and to find the strength of the   relationship between the two variables (independent and dependent), the value of (d) was calculated and was (32.65), and this value > (0.8), which indicates the strength of the impact of the independent variable (distance micro-learning). on the dependent variable (knowledge associated with e-commerce competencies as a whole), and this shows the effectiveness of using the proposed strategy from an applied point of view.
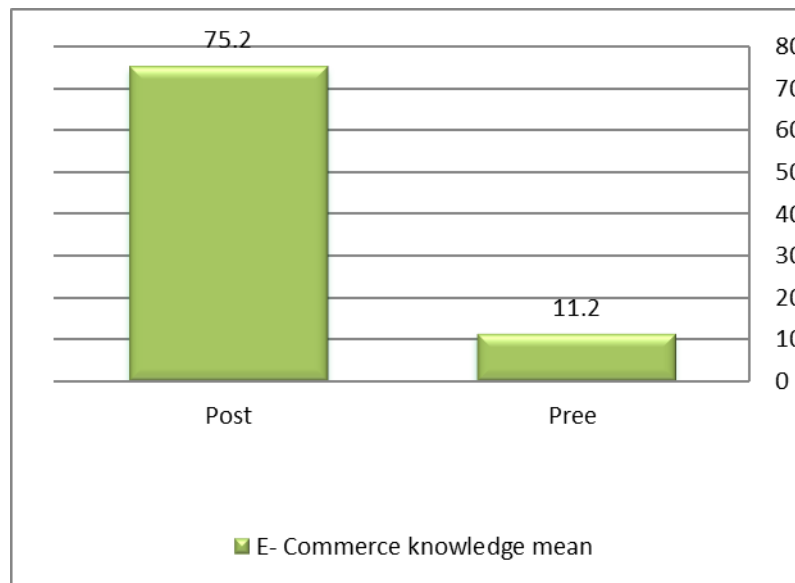
Figure (1): Graphical representation of the experimental group students'
mean scores in the pre- and post-administrations of the total e-commerce Knowledge test:

From (t), and, it is clear that the independent variable (distance micro-learning) has a significant effect on the dependent variable (emotional intelligence), but it does not indicate the size of the effect or the degree of the relationship between the two variables, and to find the strength of the relationship between the two variables (independent and dependent), the value of (d) was calculated and was (40.55), and this value > (0.8), which indicates the strength of the impact of the independent variable (distance micro-learning) on the dependent variable (emotional intelligence), This shows the practical impact of the use of the proposed strategy.
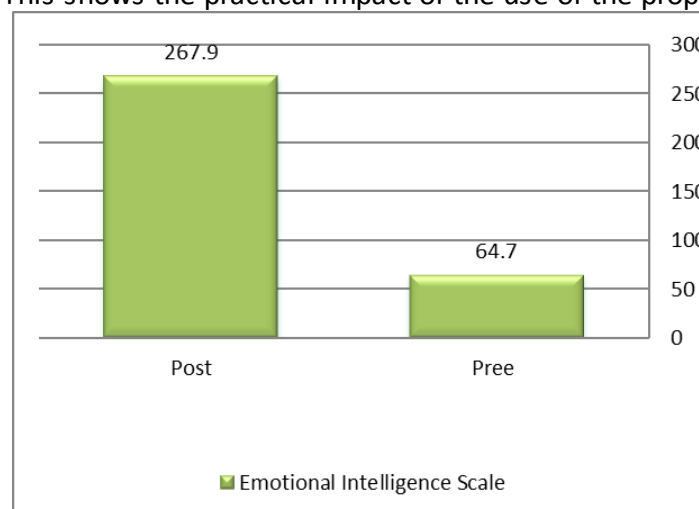
Figure (2): Graphical representation of the experimental group students' mean scores in the pre- and post-administrations of the emotional intelligence scale.

8. DISCUSSION OF THE RESULTS

By comparing the averages of the experimental group students' scores in the pre- and post-applications of the e-commerce knowledge test and the emotional intelligence scale, it was noted that the dimensional averages are higher than the

tribal averages, that the value of (T) is statistically significant at the level of significance (0.05) in e-commerce knowledge as a whole as well as the emotional intelligence scale as a whole. The hypothesis was therefore rejected.

By analyzing previous research results, previous results can be interpreted as follows:

The previous result can be interpreted as follows:

1- Using remote microlearning in presenting knowledge related to e-commerce competencies in an attractive and interesting way, as knowledge was presented in the form of interactive videos, interactive presentations, infographics, cartoon videos, interactive E-books with audio recording, interactive participatory presentations, cartoon videos, animated cartoon videos, chat cards.

2- Positive and effective participation of students among themselves as well as between them and the researchers and their constant interaction during the application of the content.

3- Continuous structural evaluation of students.

4- Students' sense of their future need for emotional intelligence in the future.

5- Positive and effective participation of students among themselves as well as between them and the researchers and their constant interaction during the application of the content.

6- The result of this research is consistent with the results of the study of: (Zaghloul, 2013), (Mahariq, 2019), (Abu Khatwa, 2020), (Ammar, 2022).

Thus, it can be said through the results of the current research, as well as the results of previous studies, that distance microlearning is one of the good entrances and effective foundations in the development of knowledge related to the competencies of e-commerce as a whole, as well as in the development of emotional intelligence.

9. RECOMMENDATIONS OF THE STUDY:

1- Developing the teaching and learning of commercial sciences to meet the requirements of the labor market and in line with Egypt's Vision 2030 and the requirements of the digital age, digital culture, and modern trends of technology.

2- Training teachers of commercial sciences on the use of modern technological means, teaching, and distance learning in commercial science courses.

3- The need to move towards the development of the emotional aspect, especially the emotional intelligence of students, and to train teachers of commercial sciences to design and use various psychological measures.

4 - Directing attention towards micro-learning because of the importance of preparing educational programs.

10. CONCLUSION OF THE STUDY:

Microlearning is a type of e-learning, but it differs from it in that it is short learning compared to traditional e-learning, microlearning usually focuses on one educational goal, provides the necessary time for learning, microlearning is a daily learning method that allows the learner to learn at anytime and anywhere provided that the Internet exists, and it is interactive learning centered on the learner.

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APPENDICES

APPENDIX (1)   INITIAL LIST OF E-COMMERCE Knowledge

Main knowledge	Sub-knowledge
1- E-commerce basics	1/1: Prepare a report on the emergence of e-commerce.
	1/2: defines the concept of e-commerce.
	1/3: Defines the dimensions of e-commerce.
	1/4: Distinguish between traditional commerce and e-commerce.
	1/5: Enumerates the characteristics of e-commerce.
	1/6: Illustrates the multiple scientific nature of e-commerce.
	1/7: Distinguish between types of e-commerce.
	1/8: Defines the constituents of e-commerce.
	1/9: Illustrates e-commerce tools.
	1/10: Mentions the risks and challenges of e-commerce.
	1/11: Defines the benefits of e-commerce.
	1/12: Prepare a memorandum on the features and structure of e-commerce in Egypt.
	1/13: Prepare a report on Egyptian efforts to promote e-commerce.
	14.1 Identifies the obstacles to e-commerce according to their importance.
	1/15: Figure out why he studies e-commerce.
	1/16: Distinguish between the concept of e-business and e-commerce.
	1/17: Identifies the stages of transformation to e-commerce.
	1/18: Sets out the protective requirements for maintaining e-commerce.
	1/19: Arrive at the basic principles governing the success of e-commerce.
	1/20: Specifies the general requirements for an e-commerce application.
2- Consumer behavior and e-marketing	2/1: defines the concept of consumer behavior.
	2/2: Distinguish between different types of consumer behavior.
	2/3: Identifies factors affecting consumer behavior.
	2/4: Comes up with the steps to make a purchase decision by the consumer.
	2/5: Defines the characteristics of the Internet consumer.
	2/6: Illustrates the concept of an e-commerce business model.
	2/7: Distinguish between different e-commerce business models.
	2/8: Illustrates the purchase decision form via the web.
	2/9: Understands customer's requirements.
	2/10: Prepare a memorandum on ways to serve the customer in e-commerce.
	2/11: Illustrates the stages of marketing research in e-commerce.
	2/12: Defines the concept of e-marketing.
	2/13: Distinguish between e-marketing business models.
	2/14: Identifies critical success factors for e-marketing.
	2/15: Distinguish between types of online advertising mediums.
	2/16: Illustrates the features of media and the Internet.
	2/17: Identifies deficiencies in the media and the Internet.
	2/18: Distinguish between ways to attract customers.
3-E-commerce infrastructure	3/1: Prepare a note on the origin and history of the Internet.
	3/2: Clarifies the concept of the Internet.
	3/3: Distinguish between different generations of the Internet.
	3/4: Defines the concept of search engines.
	3/5: Recognizes the domain name.
	3/6: Defines the concept of client/server computing.
	3/7: Prepare a note on the advantages of the Internet and the Web.
	3/8: Specifies the requirements for an Internet connection.
	3/9: Defines the concept of cloud computing.

	3/10: Prepare a report on the characteristics of cloud computing.
	3/11: Learn about different cloud computing services.
	3/12: Comes up with the advantages of cloud computing.
	3/13: Prepare a note on the disadvantages of cloud computing.
4- Security systems for e-business	4.1 Defines the concept of information security.
	4/2: Illustrates the stages of development of the concept of information security.
	4/3: Defines the components of an information security system.
	4/4: Mentions information security elements.
	4/5: Distinguish between methods of breaching information security.
	4/6: Identifies areas of information security penetration.
	4/7: Reaches information security objectives.
	4/8: Distinguish between different types of information security threats.
	4/9: Recognize the security risks of electronic money.
	4/10: Mentions the concept of network protection.
	4/11: defines the concept of encryption.
	4/12: Identifies different encryption systems.
	4/13: Distinguish between different methods of encryption.
5- E-business and e-auctions	5/1: Defines the characteristics of e-business between works.
	5/2: Distinguish between business models and business.
	5/3: The concept of the meaning of supply chain is defined.
	5/4: Distinguish between different supply chain models.
	5/5: Defines the concept of an electronic auction.
	5/6: Distinguish between the different types of electronic auction.
	5/7: Specifies the advantages and disadvantages of an online auction.
	5/8: Understands the experience of eBay, the largest online auction site.
	5/9: Defines the concept of an electronic catalog.
	5/10: Defines the requirements for building an electronic catalog.
	5/11: Finds the advantages and disadvantages of marketing with electronic catalogs.

APPENDIX (2)   Emotional Intelligence Scale for E-Commerce Knowledge

M	Ferry	I strongly agree	I agree	neutral	Dismissive	Strongly Refusing
The first dimension: emotional knowledge						
1	I use my positive emotions to manage my job tasks.					
2	I can express my positive feelings most of the time.					
3	I don't give any attention to negative emotions.					
4	I can cope with my negative emotions when making my own decision.					
5	I consider myself responsible for my feelings.					
6	I'm overwhelmed by a bad mood.					
7	I can easily express my negative feelings.					
8	My feelings are sensitive while doing certain job tasks.					
9	My feelings help me change my life.					
10	I realize that I have tender feelings.					
11	My negative feelings guide me in how to deal with others.					
12	My success in my work depends on how much effort goes in.					
The second dimension: emotion management						
13	My negative feelings are part of my personal life.					
14	My sincere feelings help me succeed at work.					
15	I can easily ignore my negative emotions.					
16	I stay calm under any pressure I get at work.					
17	I can control my negative thinking.					
18	I can easily turn my negative emotions into positive.					
19	I can control my emotions when faced with any risks.					

20	My feelings help me make important decisions in my career.					
21	I remain hopeful and optimistic in the face of the difficulties of work.					
22	I have emotional stability in communicating with others.					
23	I can't easily call positive emotions like fun and humor.					
24	I find it difficult to face life's struggles and feelings of anxiety.					
The third dimension: the regulation of emotions						
25	I try to be innovative with business challenges.					
26	I am calm when doing whatever work I do.					
27	I can't get things done with high energy and concentration.					
28	I can successfully carry out the tasks assigned to me at work despite obstacles and pressures.					
29	In the presence of stress, I rarely feel tired.					
30	I can get you busy doing my job against the odds.					
31	I can reward myself after any disturbing event.					
32	I am patient when I am not achieving good results in my work.					
33	I enjoy doing boring work.					
34	I can't contain the feelings of stress that are hindering my work.					
35	I like to develop my practical abilities.					
36	I can focus my attention on the work required of me.					
The Fourth Dimension: Empathy						
37	I am sensitive to the needs of others.					
38	I listen to other people's problems.					
39	I find my happiness in helping others.					

40	I can't easily understand the feelings of others.					
41	I can deal with the emotions of others.					
42	I can feel the feelings of the congregation that they do not disclose.					
43	I am good at listening in solving problems with others.					
44	I can understand the emotions of others from the tone of their voices.					
45	I am in tune with the feelings of others.					
46	I have the ability to recognize other people's emotions from their facial expressions.					
47	My intense sense of other people's feelings makes me pity them.					
The fifth dimension: social communication						
48	I always get angry if people harass me with their questions.					
49	I don't have a hard time talking to strangers.					
50	I consider myself trusted by others.					
51	I can lead a team.					
52	I am familiar with the social cues that come from others.					
53	I hurt others when I am under work pressure.					
54	I respond to the desires and emotions of others.					
55	When I get angry, I don't show any anger.					
56	I love teamwork with others.					
57	People see me as active towards other people's feelings.					
58	I have a strong influence on others.					