Probing the Effect of Information and Communication Technology- aided Collaborative Learning on English as a Foreign Language Students Historical Literacy

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Abstract

The effectiveness of ICT in education is determined not just by the technology's features and functions, but also by the pedagogical method applied. In this regard, the current study aims to demonstrate the impact of ICT-aided collaborative learning as a teaching strategy on EFL students' American civilization/history literacy in higher education. A one-group quasi-experimental design was conducted with a sample of (30) third-year undergraduate students at the department of English at M'sila University, Algeria. To investigate the impact of this method on the students' performance in civilization, they received a pre and post-test based on Bloom's taxonomy targeting three levels: knowledge, comprehension, and analysis. The findings of the study revealed a positive impact of the ICT-aided collaborative learning method on students' civilization knowledge and comprehension, but no effect on their level of analysis and evaluation. Finally, to ensure the effectiveness of supporting ICTs with collaborative learning in teaching civilization/history a variety of well-designed tasks is recommended to target different cognitive processes.

Keywords: Collaborative learning; ict-assisted learning; efl classroom; civilization/history; higher education

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1. INTRODUCTION

In such a world where the rapid spread of networking technologies has radically changed the nature of life and work, as well as that of knowledge and communities, it has become a necessity to rethink the fundamental axioms that determine expectations and behaviors in daily life in general and education in particular. The level of interactivity and exposure to new modalities of learning, in terms of quality and quantity, needs special attention to the different contributing factors in the teaching/learning process, such as the type of content to be delivered, the objectives assigned behind such content, the student's proficiency, and the nature of the classroom, whether as a "place" or "activity," because poor implementation will attenuate students' achievement (Haddad & Jurich, 2002). From this perspective, Jonassen et al. (2003) believe that learning does not take place better or faster simply by replacing one instructional medium with another. However, the effective use of technology in education requires thought, experimentation, and a willingness to spend the time needed to develop and refine strategies until they are proven to be effective.

Accordingly, the successful and fruitful integration of information and communication technology (ICT) into education requires a deep rethinking of a supporting pedagogical method in which learning is enhanced together with the exploration of new ways of teaching. One such pedagogical approach can be the use of the collaborative learning method (CLM). This method is student-centered and is based on the instructional use of small groups in which students work collaboratively and interact with each other to perform task-oriented activities designed by the teacher (Johnson et al., 1994).

In the realm of EFL in higher education in general, and specifically in the teaching of Civilization (American/British) in the English department at M'sila University in Algeria, despite the proposed reforms that encourage the integration of new technologies into the teaching/learning processes, the traditional way of teaching still prevails. Moreover, research in this area consistently points out the necessity of preparing technology to be used as a tool rather than as an end in and of itself, a tool whose main purpose is to help students be active learners and learn in a more efficient manner. I. e., current pedagogy must endow students with greater freedom to expand their thinking beyond conventional models, and collaborative learning methods are likely to generate small learning contexts that meet this

objective. In this regard, there is a need to investigate the impact of ICT instructional integration when coupled with collaborative learning as a supporting pedagogical approach in civilization/history teaching.

In subsequent sections, we provide the theoretical underpinning for integrating ICT in teaching, collaborative learning, and their combinations, as well as different research studies undertaken in this setting. Then, the experimental study that was conducted aimed to demonstrate the effect of combining ICT with collaborative learning on the students' achievement in civilization/history

2. Theoretical background

It is hardly surprising that, throughout the last two decades, research on the use of ICT in education has focused on the technology's potential to improve social interaction among students and between teachers and students (Chou & Min, 2009). Learning settings were reconstructed as a result of ICT, which offered new modes of learning and instruction, as well as expanded communication and collaboration opportunities.

When it comes to teaching civilization/history, Haydn (2003, p. 1) points out that "Over the past several years, ICT has developed an increasingly high profile as an issue in the teaching of history, and in education generally." According to Hayden (2003), ICT attributes can enable history students to access materials and engage in activities that allow them to make connections between substantive or subject-content knowledge and their knowledge and understanding of the nature of historical knowledge. This type of knowledge, according to Hayden, helps them understand what facts are, the processes used to establish the validity of claims, and how historians attempt to get at "the truth."

Making ICT an inseparable element of teaching any aspect of the curriculum, including history, is critical. More support for this view comes from Smith (2006, p. 81), who confirms that "the demand that ICT should be incorporated into all areas of the curriculum seems to be irresistible and, indeed, as time passes, gathers pace still further. This insistence applies to the teaching of history equally as to other disciplines". He further argues that integrating technology into the class would boost history teaching. Smith (2006) contends, in his own words:

The use of ICT needs to be seen as an integral part of the whole

> package of skills and strategies which can be deployed to enhance teaching and learning in history, rather than, as is perhaps more often the case, a discreet area of experience or expertise which can be 'ticked off' as part of the satisfaction of external standards. (p. 81)

Similarly, Counsell and Haydn (2003) recommend that ICT should be an integral part of teaching history, which is an intellectual and creative endeavor that requires a teacher to be both motivated and inspirational to be successful. As O'Hara & O'Hara (2001, p. 104) recommend, "Teachers should make good use of ICT in history through the introduction of both history software (CD-ROM, historical stimulation) and open-ended packages." Incorporating ICT into history or civilization teaching isn't a magical instrument, as Cuban (1986) contends, but it might be advantageous.

Many research studies in this field have revealed, for instance, that instructors who utilize video as a teaching aid in the classroom reap various benefits, including helping students retain more information, become more interested in reading, and improve their literacy skills (Moreno & Valdez, 2007). Another example is the PowerPoint application, which has been widely used in the classroom to help students study more effectively. It's a device that allows instructors to offer lectures in a more dynamic style than merely lecturing and writing on the whiteboard (Brock & Joglekar, 2011). Intriguingly, it may be argued that ICT gives history lectures a new appearance and enriches them, but it should also be noted that history promotes ICT learning. Hoodless (2008) maintains that history assists students to acquire skills in all ICT areas.

However, the success of integrating ICT into education is determined not just by the technology's characteristics and roles but also by the educational method applied (Lehtinen, 2003; Leidner & Jarvenpaa, 1995). I. e., in addition to technological considerations, social and cognitive aspects of learning must be considered in one pedagogical approach (Garrison et al., 2000). One such pedagogical approach can be the collaborative learning method. Collaborative learning, according to Yaverbaum and Ocker (1998), is based on the social constructivist learning approach and is founded on the belief that teaching's function is not to transfer information from the instructor to the student, but rather to help the learner construct his own knowledge. It is student-centered and based on the instructional use of small groups in which students work collaboratively and

interact with each other to perform task-oriented activities designed by the teacher (Johnson, Johnson & Holubc, 1994). Furthermore, this method emphasizes two basic principles: "positive interdependence" and "individual accountability." Positive interdependence means that team members rely on each other to succeed (Johnson et al. 1998). Individual responsibility is the process of establishing whether each member of a group has achieved the group's goals.

Cohen (1994) mentions some strategies that guarantee positive interdependence, such as presenting challenging tasks that stimulate learners' intrinsic motivation and collaborative skills and assigning the group clear and measurable tasks. Johnson et al. (1998) stress the small group size to guarantee individual accountability, which allows the researchers to observe each group member, keep track of students' contributions to the group's work, and evaluate both the quality and quantity of individual contributions.

In terms of ICT and collaborative learning relationships, a diverse research community of social scientists, computer scientists, psychologists, sociologists, linguists, anthropologists, and information systems managers have contributed to bringing to light a multidisciplinary research area that examines the impact of ICT in education, which is computer-supported collaborative learning (CSCL).

Although no single or unified definition of CSCL exists in the literature, Dillenbourg (1999) defines CSCL as a situation in which two or more individuals use technology to study something together. Piki (2008) goes on to define each phrase independently, stating that "two or more individuals" might be considered a small group, a class, or a community of learners. "Learning" might refer to taking a class, reading a book or course material, engaging in problem-solving exercises, or gaining knowledge from lifelong job experience. "Together" can refer to a variety of interactions, including face-to-face or computer-mediated communication (CMC); synchronous or asynchronous; regular or infrequent; cooperative or collaborative. "Technology", according to him, may refer to any system, application, or tool that supports communication, such as e-mails, audio and video conferencing, knowledge repositories, social software (blogs, forums, wikis), shared online applications, virtual reality systems, and other examples. In another definition by Alsancak and Altun (2011, a CSCL context is the one within which students conduct their studies by interacting with each other using computers and/or other technologies for a common purpose, such as a given task, group project, or

intergroup competition.

Spiro et al. (1988) propose a kind of instruction through cognitive flexibility theory, which advocates the coupling of collaborative learning and technology-based. It is based on three major tenets. Firstly, providing students with multiple representations of content. Secondly, emphasis should be placed on knowledge construction (instead of the transmission of information). Thirdly, high interconnectedness among knowledge sources. Moreover, they believe that digital video presentations can accelerate the learning process and can afford a variety of representations. According to them, students need to be able to apply multiple perspectives, multiple knowledge sources, and multiple points of view". And they add that in a field such as history, where multiple perspectives and even competing contexts and facts are frequent, cognitive flexibility helps students get an in-depth understanding.

From a cognitive/psychological standpoint, this teaching method was said to have a positive impact on students' learning and academic achievement, as well as increase their awareness of the course and help them develop their learning skills (Watson, Dubrovskiy & Peters, 2020; Wu, 2003). Also, it can help students improve their critical thinking skills by examining, reflecting, and arguing for or against various points of view (Fung, 2004), as well as their creativity and higher- level reasoning (Alavi & Leidner, 2001). Other research studies conducted by Huang, Su, Yang & Liou (2017), Lin (2013), and Watson, Dubrovskiy & Peters (2020) corroborate this finding and confirm the effectiveness of this method in different disciplines.

From the social standpoint, this environment can be said to provide a variety of options (Kynigos, Dimaraki & Trouki, 2007). In this vein, Andres (2002) claims that combining the classroom environment and the internet in collaborative learning can help students become active learners who can configure information rather than passively receiving it, and if it is well structured, it can create a high level of motivation that cannot be achieved in a traditional classroom setting. According to Stacey (1999), it promotes positive changes in interpersonal attitudes, encourages student participation and a sense of community, and helps students improve their communication and listening skills while also allowing them to learn from peers from a variety of cultural, intellectual, and professional backgrounds. Other advantages of this method, according to Şenel (2010), include access to resources, multiple forms of feedback (such as peer and instructor perspectives), and the

establishment of intra-group and inter-group communication.

In a study conducted in a CSCL context, Scellens and Valcke (2000; 2002) attempt to determine the impact of students' individual characteristics (i.e., positive attitude toward collaborative learning; deep, surface, or strategic learning style; participation level), group characteristics (i.e., activity level) and task characteristics (i.e., task complexity) on two dependent variables, namely levels of knowledge construction and study performance. The obtained results point to the impact of task complexity and confirm other research findings that a task should be in the learner's zone of proximal development.

Van Keer and Valcke (2004a; 2004b) conduct another study with 230 students studying psychology and educational sciences. They participated in 23 asynchronous discussion groups as a formal part of their curriculum. The study's group size was kept constant at 10 per group, and the goal was to see how task structure (global vs. pre-structured) and involvement levels (three levels, depending on the number of contributions noticed in group discussions) affected knowledge building. They analyzed the transcripts of eight discussion groups. The findings show that the discussions were very task-oriented. Knowledge construction is substantially greater in discussions in more actively involved groups (representing the highest level of engagement). The results also suggest that task organization has a major influence, and that higher degrees of knowledge construction are facilitated by more complicated activities.

In fact, several studies in the literature found that the CSCL method was successful in academic attainment when conducted with diverse sample groups in various disciplines. However, few studies, if any, have focused on the impact of collaboration in a technology-based learning environment on students' civilization or history performance and the nature and quality of knowledge construction.

Based on a review of the literature, including previous research studies on implementing CSCL in EFL teaching in higher education in different disciplines, the current research paper introduces a teaching method that concerns history in the HE EFL classroom. It differs from traditional teaching in that the student actively participates in the elaboration and construction of his/her historical knowledge using ICTs. This research aims to test the efficacy of incorporating ICTs into history/civilization learning when combined with a collaborative learning strategy that immerses students in a small learning community.

2.1. Research Question

In the current research a main research question is addressed:

- Is there a significant impact of the implementation of the ICT in a collaborative learning context on students' history/civilization literacy?

2.2. The Hypothesis

This experimental study takes the following null hypothesis as a basis for its analysis:

- There is no statically significant difference in students' civilization/history literacy levels before and after the implementation of the ICTs in a collaborative learning context.

3. Method

To find answer to the research question, the researchers used a one-group quasi-experimental pre and post-test design with one independent variable that is ICT-aided collaborative learning and one dependent variable that is the participants' civilization/ history performance and knowledge construction. The experimental group got a pre–test evaluating the dependent variable, and then treatment sessions based on the use of ICT combined with collaborative learning activities, and finally a post–test to measure any changes between the groups' performances.

3.1. The participants

The current study was conducted with a random sample (30) third year undergraduate students from the department of English at M'sila University, Algeria. They studied the American civilization as part of their official curriculum. In addition, a group of three experienced Civilization/history teachers from the same department contributed in the test development by evaluating its validity and reliability.

3.2. Tools

The researchers utilized a quasi-experimental research method in which participants were given a pre-test and a post-test of civilization knowledge after studying American civilization/history lectures utilizing ICT coupled with a collaborative learning method. Researchers developed the civilization knowledge test (CKT) that was utilized as a pre and post-test. It was aimed at testing specific levels of civilization/history. Referring to a wide range of literature about history learning and the major levels that are generally targeted to evaluate the students' performance, the researchers developed the CKT based on the revised version of

Bloom's taxonomy of learning, which, according to Anderson and Krathwohl (2001), is a system that classified levels of cognitive functioning and provided a sense of structure for the various mental processes we experience.

Accordingly, the set of selected test questions covered three major levels: knowledge (remembering), comprehension, and analysis levels of the taxonomy. The test comprised three sections with five items each, for a total of 15 items. The first section was intended to examine the knowledge (remembering) level. It incorporated five items that asked the respondents either to provide a detailed definition or to match the correct propositions. The second section covered the comprehension level using five true-or-false statements. The third section included five items, including MCQ, combining, comparing, and analysis items.

Reliability and validity, being two of the most important key factors required for effective testing, were highly taken into consideration when developing, conducting and scoring the CKT. A test is said to be reliable if it measures consistently in terms of the same student performance and same scoring across different raters. On account of this, the researchers were keen to ensure the achievement of both reliability types: test takers performance reliability and rater reliability.

Test takers performance reliability was examined using the test re-test technique so that the pilot sample did take the test in two different occasions, then by means of Pearson correlation coefficient concordance between different test performances was measured. Table 01 below is the summary of statistical analysis of test performance reliability.

Table 1. Test performance Reliability Analysis

		Performance 2
Performance 1	Pearson Correlation	.991**
	Sig. (2-tailed)	.000
	N	30

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

From table 01, high level of performance reliability is found. The value of r=0.99, that is almost close to 1, indicates a very strong positive statistically significant correlation, at the level of α=0.01, between test takers first test performance and the second performance.

In fact, many factors can influence the test takers achievement including, for instance; the context, the clearness of instructions, and the timing. To increase the reliability of achievement, certain measures were taken including:

- Ensuring test clear instructions by means of clear language and familiar types of questions formats
- Ensuring the timing by setting enough time, to test takers to finish the test. A one hour and a half was considered as an enough time to take the test.
- Ensuring the context by putting test takers in familiar test taking environment to avoid the influence of extraneous variables that may affect the writing performance of the students including confusion, misunderstandings, stress and anxiety.

Raters' reliability that is about the consistency with which participants' writings are rated was achieved through the use of a predetermined rating score that all raters agreed on and through the inter-rater reliability, or the extent to which two or more raters agree on one scoring. Inter-rater reliability was measured using intra-class correlation coefficient (ICC) that is aimed at finding out the concordance between the two test raters rating the same students. Table 03 displays the values of ICC of average measures that is an index for the reliability of different raters averaged together. As the values of ICC is (0.962) for average measures, which is more than 0.7, we can say that this is a clear evidence that there exists an excellent agreement between the raters of this study.

Table 2. Intra-class Correlation Coefficient of Test Raters

	Intra-class Correlation [b]	95% Confidence Interval		F Test with True Value 0			
		Lower Bound	Upper Bound	Value	df1	df2	Sig
Average Measures	.962	.996	.999	562.208	29	29	.000

The CKT validity, or the extent to which it tests what it is designed to test, was examined using face and content validity by consulting three third year civilisation teachers in the English language department at M'sila University in order to ascertain the relevance of the test contents and to the assessment criteria used in the measurement of students' performance. The civilisation teacher's comments helped to replace, modify and sometimes delete items until the CKT was accomplished in its final version.

3.2.1. Scoring

It is worth considering that both the pre-test and the post-test were corrected congruently where every correct answer received one point (1/1). Overall, the tests contained 15 items, rendering the full mark fifteen points out of fifteen (15/15). However, the absence of any of the expected answer resulted in marks loss**.**

3.3. The procedure

The experimental work took place in the second semester of the academic year after having been instructed traditionally in the first semester. Firstly, the students received a pre-test to evaluate the three targeted levels (knowledge, comprehension, and analysis). Then they got six treatment sessions as part of their official civilization curriculum. At the beginning of each intervention session, the teacher introduced the target chapter briefly to the whole group of participants, who simultaneously took notes and made remarks. The teacher then divided them into five small groups of six students each, who convened in front of the computers to view a video that covered one segment from the chapter in detail, and they took notes. After that, they were asked to sit around a table and discuss the subject of the segment they just watched, as well as explain concepts, policies, political issues, historical occurrences, and so on. Then, group members had to generate a summary in PowerPoint format out of the details they watched, the notes they took, and the newly gained ideas and concepts from the group discussions. This summary was then transferred to the central computer to be introduced to the entire class groups. After they had participated in six treatment sessions, the participants took a post-test cognitive skill-based test that was adapted from the revised version of the Bloom taxonomy by focusing on three main levels involved in civilization learning: knowledge (remembering), comprehension, and critical thinking (analysis and evaluation).

4. Results

The data obtained from the CKT test were described and compared using both descriptive and inferential statistical measures with the help of the SPSS software, version 20. The First set of descriptive statistics used in the analysis were the measure of central tendency; including Mean($\bar{x}$) and the standard deviation (Std) to describe participants' scores in CKT. The second set of statistical tools was the paired samples T-test used to examine the difference in participants performance in the pre and post-tests.

4.1. Difference in Civilization Knowledge Test Performance

The paired samples T-test analysis was conducted with CKT pre- and post-performances. The test results, as displayed in table 4 below, indicate a mean difference of 3.06 and a T value T=6.06 . This difference is statistically significant as confirmed by the significance level $\alpha=0.00$ ($p<0.05$) at the df=24. Thus, the existence of statistical significance implies the rejection of the main null hypothesis and the acceptance of the alternative one which states that there is a statistically significant difference in students' performance in the pre- and post CKT test which is explained by the significant impact of the implementation of ICTs in a collaborative learning context.

Table 3. Paired samples T test of the CKT

Paired Samples Test							
		Paired Differences			t	df	Sig. (2-tailed)
		Mean	Std. D	Std. Error Mean			
CKT	Final pre-test – final post-test	-3,06	2,47	,50	-6,06	24	,000

To examine the difference direction, the means of the two tests were compared. Graphical representation of the tests' mean difference in figure 2 clearly affirms the increase in students' performance in the post test. This confirms the significant impact of the suggested teaching intervention on improving students' levels of civilisation learning that, apparently, has progressed in the post test with a mean difference of M=3.06.

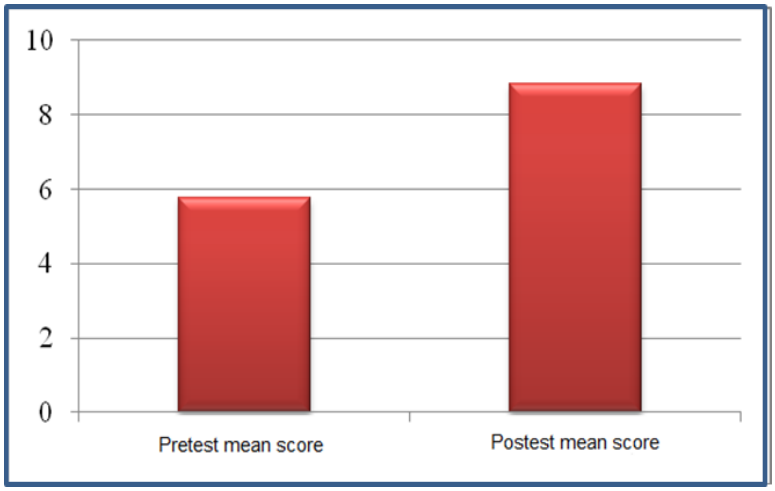

Fig. 1. Mean difference in students CKT

To further examine the impact of the intervention on students' learning levels, paired samples T-test analysis was conducted for each of the test's three sections; knowledge, comprehension, and analysis and evaluation. Detailed difference analysis of the CKT sections is summarized in the table 4 below.

Table 04.Paired samples T test of the CKT test sections

Paired Samples Test							
		Paired Differences			t	df	Sig. (2-tailed)
		Mean	Std. D	Std. Error Mean			
Remembering	pre - post	-2,35	1,17	,23	-9,81	24	,000
Comprehension	pre - post	-1,12	1,29	,26	-4,25	24	,000
Analysis and Evaluation	pre - post	,41	1,38	,28	1,47	24	,153

Apparently, the only insignificant difference, as indicated in table 5, is the one in third level in the CKT, analysis and evaluation, for which the sig (2tailed) α=0.153, $p > 0.05$ at df=24. In the other two sections, remembering as well as comprehension, statistically significant differences in performance are detected, with T values, respectively; T= 9.81 at the p level 0.00 ($p<0.05$), df=24, T=4.25 at the p level 0.00 ($p<0.05$), df=24. The statistical significance detected in the two sections of remembering and comprehension indicates the rejection of the null hypothesis and the acceptance of the alternative hypothesis confirming the impact

of the implementation of ICTs in a collaborative learning environment. While the absence of statistical significance in the last section of analysis and evaluation implies the acceptance of the null hypothesis that confirms the no impact of the use of ICTs. Thus, this finding unquestionably implies that the suggested teaching method has a direct impact on enhancing students' remembering, and comprehension skills vis-à-vis civilization learning. Meanwhile, it has no impact on their analysis and evaluation skills

To further understand the direction of the statistically significant differences, the means of the two tests sections were compared and graphically represented in figure 2 below.

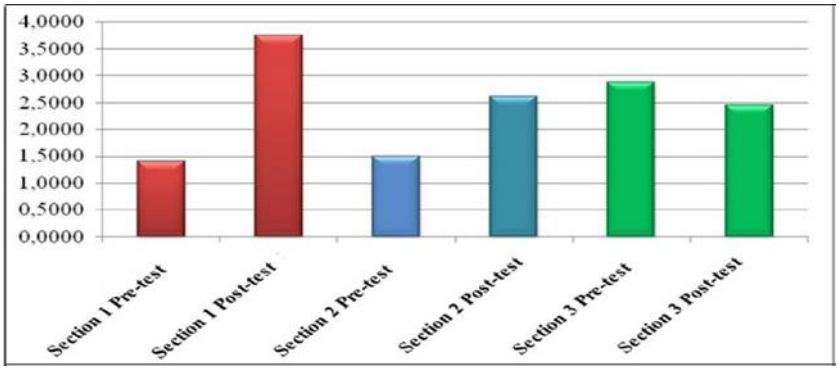

Fig. 2. Mean differences of the CKT sections

Figure 2 confirms findings from the difference analysis, showing the remarkable mean difference in the first two levels. While, in the analysis and evaluation level, the slight statistically insignificant difference in performance is also shown revealing no change in participants performance in this level. These findings assert the impact of the suggested treatment on students' knowledge and comprehension levels only without any impact on the level of analysis and evaluation.

5. Discussion

One of the major aims of this study was to determine if the ICT-aided collaborative learning application has a positive impact on the students' civilization/history learning. The findings imply that the suggested teaching method has a direct impact on enhancing students' knowledge (remembering) and comprehension levels vis-à-vis civilization/history learning. Meanwhile, it has no

impact on their analysis and evaluation level. These findings can be explained from different viewpoints.

From a cognitive/psychological viewpoint, the current study findings indicate the positive effect on knowledge and comprehension levels are in line with the cognitive flexibility theory of Spiro et al. (1988), who hypothesized that the more students express their line of thought, the more the construction of mental models is facilitated. In the same vein, Valcke et al. (2005) argue that within a technology-based collaborative learning context (asynchronous discussion groups), the information processing activity is fostered due to the active exchange of information among the students. This information, according to Spiro and his colleagues (1988), is pre-structured, reflecting multiple representations that are accessible by peers. Correspondingly, Mayer (2001) explains that such a context helps students actively engage in cognitive processes. I.e., active information processing to construct mental models (or schemas) based on individual learning (experience), which leads, according to Bruner (1957), to new information integration into existing mental models.

As far as the students' knowledge (remembering) level enhancement in this context is concerned, Mayer (2001) shows that the active information processing evoked by this context invokes three types of processes in and between working and long-term memory: selecting information, organizing information, and integrating information into mental models that are stored in and retrieved from long-term memory. This allegedly validates the memory-boosting impact on students.

Another explanation of the positive effect of this teaching technique on students' knowledge and understanding may be provided in connection to the participants' roles. In a study by Weinberger (2003), he found that in technology-based collaborative settings, only the role of "summarizer" resulted in a significantly higher level of knowledge construction. This role, in fact, complies with the summarizing task proposed for the participants in our treatment sessions. Moreover, the task issue is of great importance in this type of setting because it is thought to trigger the individual students' cognitive processes. This corroborates with Valcke and colleagues (2005), who found in a study they conducted that the type of cognitive activity is assumed to be impacted by the task's content and complexity, resulting in an output that indicates distinct levels of knowledge

processing.

Motivation can also be among the causes behind the positive impact on both levels. Zimmerman and Schunk (2007) believe that motivation is a psychological phenomenon and that the social context has an impact on individuals' motivation to engage in learning activities. From a sociocognitive perspective, it was revealed that cognitions and interpretations mediate the impact of social circumstances and can serve as useful indicators of a student's motives and drives to participate in learning activities (Jarvella et al., 2010).

From a social standpoint, the positive influence on students' success may be explained by the benefits that a collaborative learning environment can provide, such as permitting positive changes in interpersonal attitudes and boosting student engagement and a feeling of community. Furthermore, collaborative learning activities help students improve their communication skills while also allowing them to learn from peers from various cultural, intellectual, and professional backgrounds (Stacey, 1999).

The proposed teaching method proved to have a positive effect on the knowledge and comprehension levels in civilization/history learning. However, according to the study findings, the ICT-aided collaborative learning strategy had no impact on the students' analysis level. In fact, the negative impact of this teaching strategy has been confirmed by a number of researchers (e.g., Lin, Chan & Hsiao, 2011; Lin, Hsiao, Tseng & Chan, 2014; Peterson & Roseth, 2016). At the same time, we find a plethora of research studies revealing that collaborative learning is mostly associated with increased personal achievement and critical thinking through evaluating, reflecting, and arguing for or against different viewpoints (Fung, 2004) and that students in such context tend to display higher-level thinking, greater diversity of ideas, and more creativity when they are actively learning in groups rather than alone or competitively (Alavi & Leidner, 2001; Alavi et al., 1995). This finding, in fact, can be referred to the impact of the type of task that did not contribute to activating their critical and analytical thinking skills. In other words, task inadequacy can stifle one level of the students' historical learning. In this vein, Valcke et al. (2005) emphasize the task structure and its degree of complexity since, according to them, when tasks are overly complicated, knowledge construction levels are much lower. On the other hand, if tasks are too easy, we may anticipate students feeling unchallenged, and the amount and quality of participation will suffer as a result.

Indeed, the obtained findings are at the heart of the current study to offer answers to the research questions.

6. Limitations of the study

Because the findings of our study were based on a single study conducted at a single English department in Algeria, caution should be taken when applying them to the entire population of Algerian EFL students or to EFL students in other countries with different educational and cultural environments. Thus, future research should involve students from other higher educational institutions to improve the validity and generalizability of the findings of this study. Moreover, the research was confined to a single sort of activity, summarizing, which had a direct influence on students' knowledge and understanding but had no effect on their critical thinking. As a result, it's advisable to try out different task types to see how they affect other thinking processes.

7. Conclusion

The current study endeavored to investigate the effect of integrating ICT-supported collaborative learning on improving EFL students' learning of civilization/history. The study findings revealed the positive impact of this teaching strategy on the knowledge (remembering) and the comprehension levels, with no impact on the analysis cognitive level.

This setting provides students with multiple representations of historical content that is full of competing contexts and facts and emphasizes knowledge construction instead of transmission of information (Spiro et al., 1988). It promotes students' active engagement in cognitive processes. It is this active information processing that constructs mental models based on individual learning experiences and boosts their memory as well. Furthermore, this environment offers a motivational context incorporating social circumstances that can serve as useful indicators of students' motives to actively participate in learning activities, and allows for beneficial changes in interpersonal attitudes, encourages students' participation and their sense of community, and assists them in improving their communication skills while also allowing them to learn from their peers.

The research results also reveal that summarizing tasks enhanced students' knowledge and comprehension of the input they received; however, they did not contribute to fostering their analytical competence. This implies that task type and structure are important issues to consider by academic practitioners to target

different cognitive processes.

Apart from the researchers' focus on obtaining clear empirical evidence to support assumptions about ICT-supported collaborative learning in civilization/history literacy, the current study is intended to set forth some guidelines to direct future researches and practices such as:

- Universities should continually equip graduates and instructors with the
- skills necessary for effective participation in groups (training).
- Academic practitioners should adopt pedagogical approaches that
- prioritize learning via hands-on experience and group collaboration.
- Developers of such environment must design for the graduate students
  - ✓ curricula that include learning tasks that prompt critical thinking and
  - ✓ problem solving.
- Instructional designers must select the most natural and effective tools
- taking into consideration the task at hand and the individuals involved.

8. Bibliography List

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