

**Using collaborative digital literacy skills
activities in developing writing performance of
primary school pupils**

by

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Abstract

The purpose of the study was to investigate the use of the Collaborative digital literacy skills activities in digital literacy skills activities in developing writing performance of primary school pupils. The participants were one group the sixth of pupils selected grade pupils at Green Language School, Qualybia Governorate Three instruments were designed and used. The first instrument was a checklist to assign the most suitable writing skills to be developed for the sixth grade pupils. The second instrument was a pre- post writing performance test for assessing the writing skills of the pupils, using a rubric for scoring pupils' writings. The third instrument was a satisfaction questionnaire to measure how far the participants are satisfied with the treatment. Results revealed that there was statistically significant difference between the mean scores of the research group pupils in both the pre and post of the overall and the subskills of the writing performance administration in favor of the post test score.

After testing the validity of the hypotheses, the findings revealed the effectiveness of the suggested treatment on developing the writing performance of primary school pupils.

Key words: Digital literacy skills, Collaborative learning, writing performance Collaborative digital literacy skills activities.

مستخلص البحث:

هدفت هذه الدراسة إلى التحقق من إستخدام أنشطة المهارات المعرفية الرقمية التشاركية على تنمية الأداء الكتابي فى اللغة الإنجليزية لدى تلاميذ المرحلة الابتدائية وتكونت عينة هذه الدراسة من (٣٠) تلميذ وتلميذة فى الصف السادس الابتدائى من مدرسة جرين سكول للغات، محافظة القليوبية، وقد تم أستخدام ثلاثة أدوات فى هذه الدراسة وهى قائمة المهام وأختبار قبلى وبعدى، وأداة الأستبانة لمعرفة مدى رضا التلاميذ عن أستخدام الأنشطة المقترحة .

وأسلوب النتائج على وجود فروق ذات دلالة إحصائية بين متوسط درجات مجموعة البحث للأختبار البعدى ككل وبين المهارات الفرعية لمهارات الأداء الكتابى وذلك لصالح نتائج الأختبار البعدى. وبعد أن تم التأكد من صحة الفروض ، أكدت النتائج على فاعلية أستخدام الخطة العلاجية على تنمية الأداء الكتابى فى اللغة الإنجليزية لدى تلاميذ المرحلة الإبتدائية .

الكلمات المفتاحية

أنشطة المهارات المعرفية الرقمية التشاركية – الأداء الكتابى

Introduction:

Writing is considered an important language skill and an essential productive activity specifically for second and foreign English (ESL/EFL) language learners (Hussin et al., 2015). In order to be competent writers, ESL/EFL learners not only need intellectual strategies but also certain linguistic and vocabulary knowledge as well as appropriate writing conventions that would help them express themselves effectively (Erkan & Sabah, 2011).

It is also a common knowledge that ESL/EFL writing has always been viewed as a complex process. Hence, novice and unskilled writers especially in the early stages of learning require motivational, social, cognitive and cultural input before producing the final written product (Dujcik, 2008; Jun, 2008; Erkan & Sabah, 2011; Raoofi et al, 2014).

Although writing is one of the most important skill in real communication, less important is attached to writing. It's mainly because college English examinations don't lay a lot of emphasis on the testing of writing. Greater emphasis is put on the development of reading comprehension through knowledge of grammar and vocabulary. In addition, instructors continue to use traditional instructor- centered method in teaching, therefore many pupils in primary stage can read and understand well but write very poorly. Most pupils dislike writing course because they think it is difficult and time consuming to improve writing ability and the limited help from writing class cannot make them write well. Therefore, this condition will be worse and with influence the development of writing skills.

As many people might believe, writing is not an easy task; it incorporates several interrelated elements, as it is so many times referred to in some contexts as the translation of one's thoughts into language.

Before being presented in their final written form, it contains numerous

mental tasks (Zemach and Rumisek,2005,p. 23). In writing process, we need to think, write and construct all ideas, verify their relationship with each other and the topic's main ideas, memorize and remember lexical things that are considered more important than others, scan and delete all irrelevant ideas, and then arrange all ideas according to their meaning in a way that develops the main ideas,i.e. the topic's theme.

In addition, the writer needs to relate his ideas to each other, orally perform them on paper as a first draft, and then review and finalize them. (Zemach and Rumisek,2007, p.25) While this approach has earned widespread support for adoption, has learned widespread support for adoption, it is well known that there is no single standard formula. In many Egyptian universities, online applications (like kahoot ,quizzes, what's app) are used to supplement traditional classroom instruction.

Computers now are much more than devices for information retrieval: they convey images and fantasies, provide opportunities for imaginative self-expression and play, and serve as a medium through which intimate personal relationships are conducted. These media cannot be adequately understood if we persist in regarding them simply as a matter of machines and techniques, or as "hardware" and "software".

The internet, computer games, digital video, mobile phones and other contemporary technologies provide new ways of mediating and representing the world, and of communicating. Outside school, children are engaging with these media, not as technologies but as cultural forms: they are not seeing them primarily as technical tools, but on the contrary, as a part of their popular culture, and of their everyday lived experience. If educators wish to use these media in schools, they cannot afford to neglect these experiences. On the contrary, they need to provide pupils with means of understanding them.

Enhancing writing performance might be tackled via the use of online learning which become a must after the pandemic of COVID-19 and that the ESL/EFL learners in such learning environments might gain benefits in two ways. Firstly, they could get writing assistance during the revision and editing stages in the form of feedback and comments from their peers and teachers. Secondly, they would be able to gather information from the Internet and share knowledge and writing experience through the online discussion. Subsequently, students would be able to increase their writing performance WP in these learning environments.

The influential impact of online learning in the field of ESL/EFL writing is underscored by Rybushkina & Krasnova (2015). They stressed that the conventional face-to-face learning environment does not necessarily suit all students since each individual student has different learning abilities and does not necessarily share similar ways of learning with other students.

Internet-based pedagogy and online collaborative activities have been found to help students as well as teachers to overcome various problems in the learning and teaching of writing skills such as: time constraints, inadequate facilities to support writing as well as lack of motivation. (Harasim, Hiltz, Teles and Turoff 1995) defined online collaborative learning as a learning process where two or more people work together to create meaning, explore the topics, or improve a skill.

Flower and Hayes (1981) has proposed a guideline for writers to use when producing writing outcomes. Their guideline consists of planning, drafting and reviewing. This theory was further expanded by Byrne (1988). Byrne (1988) has further modified the writing process into five parts such as gathering ideas, preparing an outline ('scaffolding'), writing a draft, correcting and improving the draft and writing the final output. Originally, Flower and Hayes's (1981) guideline was designated for individual authors.

However, Neuwirth, Kaufer, Chandhok and Morris (1994) suggested that it is also applicable for many writers who work collectively. Collaborative writing can be assisted with the suggested guideline. Through collaboration, learning can be enhanced as a result of the act of ‘doing things together, negotiating new meaning and learning from each other (Wenger, 1998). Knowledge is developed and re-created by a group of people with the aim of achieving common goals or overlapping purposes (Wells, 2000; Wenger, 1998; Lave and Wenger, 1991; Freire, 1970). Students can experience collaborative digital literacy activities that could boost their confidence in language acquisition and writing performance; and a sense of connectedness among them. In the digital learning, students are immersed and surrounded with rich and authentic information as a result from social interaction. Collaborative digital literacy skills activities (CDLSA) promote the writing performance without worrying about mistakes. Through the use of CDLSA, pupils are able to have discussion and conversation virtually and share their ideas, comments and opinions in completing their writing assignments, which are aligned with sociocultural theory.

Tapscott (2009) claims that children today are so accustomed to digital technology that they think it is part of the natural landscape. However, many problems related to their use of such technology have emerged, including Internet addiction (Young, 1996), lack of web literacy (Kuiper, Volman & Terwel, 2009), Internet bullying (Campbell, 2005), illegal downloading, and other related problems. It is apparent that children need to develop a new kind of literacy to enable them to function effectively in the digital era. This literacy is recognized by Eshet-Alkalai and Amichal-Hamburger (2004) as digital literacy (DL). With digital technology permeating all aspects of our lives, DL and its development have received much attention recently. For example, DL takes a central place in several

of the European Union's research and education programs (Soby, 2008), while the European Commission (2003) regards DL as a prerequisite for creativity, innovation, and entrepreneurship. Much research and practical work suggests that collaborative activities carried out in a digital environment, or web-based collaborative activities, constitutes a useful approach to foster DL among students.

Digital literacy comprises of a set competency required for effective participation and communication in the 21st century: the ability to make and share meaning in different modes and formats, and to interact and communicate effectively in digital environments (Warschauer, 1997; Dobson & Willinsky, 2009; Knobel, 2008). One important component of digital literacy is the collaborative processes and products of written communication (Yancey, 2009). In most career and academic settings, collaborative tasks are increasingly common due to the practical benefits of task efficiency and productivity (Jones, 2007). In K- 12 education, collaborative writing has been recognized as an effective instructional strategy for improving individual writing skills (Graham & Perin, 2007) as well as an important component of 21st century literacy demands suggested in the Common Core State Standards (e.g., Bunch, Kibler, & Pimentel, 2012). Collaborative writing is defined as the joint production of a text by two or more writers (Storch, 2011). In recent years, there has been a significant growth of research on collaborative writing in the L2 classroom (see, for example, Shehadeh, 2011; Storch, 2005; Lin & Maarof, 2013). Collaborative writing emphasizes the significance of interactions and cooperation to solve problems in creating a text. Recently, technology-enhanced writing platforms, such as wikis, blogs, and Google Docs, have been gaining attention as mediums for collaborative writing due to features that allow users to simultaneously create, edit, and collaborate on a document. Collaborative communication in the networked environment can

be conducive for writing development, as it “combine[s] the interactive aspect of written conversations with the reflective nature of composing” (Ware & Warschauer, 2006, p.111). Research suggests that collaborative online writing can be particularly beneficial for second language (L2) learners because it can provide them with communicative opportunities to practice English in a non-threatening and engaging environment, with little restriction on time and space (Warschauer, 1997; Sun & Chang, 2012).

So the collaborative digital literary skills activities which depend on using the online activities may contribute in enhancing the writing performance for the early grades.

Yet many students globally don't have the critical digital literacy skills they need for learning, such as keyboarding and word processing, visual mapping, and online communication. Education needs to be re-focused on lessons that cover real life applications of spreadsheet, Presentation and image editing tools, as well as how to effectively search the web and collaborate online. Students must be able to thrive in online schools, flipped the classroom or blended learning environments which all requires the students to have digital literacy skills.

To help pupils improve their writing skills and increase their motivation to write, many approaches have been used for many years. Collaborative and digital literacy activities may offer the possibility of involving students and giving them ownership over their own learning. In addition, the use of technology helps pupils to choose or create their own tasks, demonstrate their knowledge of the subject and to find a way to show up their understanding of knowledge.

Context of the problem:

Writing is the most difficult skill for EFL learners to master. The researcher noticed, through her work as an English teacher in Green Language School, there is weakness in pupils writing performance and

the difficulties the pupils face in using digital spaces collaboratively, so the researcher interviewed 8 teachers of English at the same school to assign these difficulties. She realized that:

- 1) Pupils face difficulties in writing paragraphs and forming sentences correctly without grammatical and punctuation mistakes.
- 2) Pupils don't have the ability to rearrange words in a correct order to make complete and meaningful sentences.
- 3) Pupils can't share their answers with each other to work collaboratively.
- 4) Teachers can't apply suitable and appropriate strategies to help pupils improving their writing performance using the collaborative and digital literacy skills activities.
- 5) Parents, at home, don't have the awareness of the importance of using the available digital spaces in the development of their children writing performance.

Pilot study:

The researcher piloted an online exam using the mobile phone as one of the digital spaces to 30 pupils in grade 6 from the primary stage at the same school, other than the researcher group pupils, to put her hand on the actual problems in writing.

The aim of the pilot study is to find out the weakness in the pupils 'writing.

The questions of the pilot study were the following:

- 1) Write a paragraph of 80 words about your school.
- 2) Rearrange some words to form correct sentences.

Putting pupils in breakout rooms on zoom, the teacher divided the class into two groups and sent the questions to both groups asking them to share the answers within each group to bring the correct answers.

After rating the test by the researcher and another teacher, the results

were 4 pupils got 1 out of 10, 3 pupils got 3 out of 10, 2 pupils got 4 out of 10 and 1 pupil got 4.5 out of 10.

After evaluation the pupils' writing, it was found that the pupils' writings were in consistent. Therefore, the researcher stated the problem of the study in the following lines after recording the pilot study results.

To conclude that, pupils have problems in:

1. Forming complete and meaningful sentences.
2. Reflecting, arranging and expressing their ideas using grammatical rules correctly.
3. There was a lack of a coherent written product.
4. Working collaboratively with the perfect usage of the digital spaces online.

Through the results of the pilot study, the researcher will apply the collaborative digital literacy skills activities in dealing with such problems.

Statement of the problem:

The problem of the study is the weakness of the writing performance among EFL pupils in the sixth grade of the primary stage. They can't use learning strategies to achieve better writing goals. Literature reviewed has shown the effectiveness of using online language learning strategies on promoting language skills especially writing performance.

Collaborative learning shows an educational approach to learning that involves groups of learners working together to solve a problem or completing a task. Coming up to a next level, the researcher involved some digital spaces which focus on using different online applications in promoting the writing performance, and how far the collaborative digital literacy skills activities affect the writing performance positively.

Collaborative writing has been suggested as a potential solution (Lin & Maarof, 2013). Collaborative writing is defined as the joint production of

a text by two or more writers (Storch, 2011). In recent years, there has been a significant growth of research on collaborative writing in the L2 classroom (see, for example, Shehadeh, 2011; Storch, 2005; Lin & Maarof, 2013). Collaborative writing emphasizes the significance of interactions and cooperation to solve problems in creating a text. Accordingly, the current study tries to answer the following main question:

What is the effectiveness of applying the Collaborative digital literacy skills activities in developing the EFL writing performance of primary stage pupils?

To answer this main question, the following sub questions will be answered:

1. What are the writing performance skills which the primary school pupils should have?
2. What are the suggested collaborative digital literacy skills activities which can develop the writing performance for primary school pupils?
3. To what extent are the primary school pupils satisfied with the collaborative digital literacy skills activities?
4. What is the effectiveness of the suggested collaborative digital literacy skills activities in developing the EFL writing performance of primary stage pupils?

Aims of the study:

- 1- Developing the writing performance of primary school pupils.
- 2- Investigating the effectiveness of using the collaborative digital literacy skills activities.

The significance of the study:

This current study is important due to many reasons, one of the most important issues is that the sample of the study is the 6th grade of the primary stage who should be trained to be good at using the digital spaces in promoting their writing to face the challenges in this era which affected

by the existence of COVID-19. Moreover the collaborative skills activities can give them the opportunity to think and share ideas that affect their writing performance.

So, this research will be useful for:

1. Pupils:

This research helps pupils to improve their writing performance using digital spaces in their learning and give them the opportunity to share their work with each other. Hence, this research helps in increasing their engagement and improving their writing performance.

It also helps obtain social benefits, such as collaborative ability, interpersonal skills, articulacy, ability to adapt, judgment, participate in group discussions, do interviews, make on-the-spot observations. They were pushed to learn how to communicate with team members and clearly present their inquiry learning results to their classmates. It, also, will help them overcome the lack of proficiency which is a factor that might hinder smooth collaboration and writing performance as it prevents group members from expressing themselves clearly.

1. Teachers:

This research provides teachers with a guide of using the collaborative digital literacy skills activities and strategies in teaching English in general and writing in particular. This research will change the teacher's role, from being solely an instructor to an organizer, leader, facilitator, and supervisor of the activity.

2. Parents:

This research increases the awareness of parents as it gives them a great outlook on the importance of the collaborative digital literacy learning and its significant effect on improving the writing performance of their children. Thus, they can help their pupils in

using digital spaces in developing learning in general and English writing performance in particular.

Definitions of terms:

1. Digital literacy:

According to Cornell University, Digital literacy is the ability to find, evaluate, utilize, share, and create content using information technologies and the Internet. This means that the ability to complete simple tasks on a computer is just as much a part of digital literacy as high-spec skills. Also, digital literacy entails learning’’ the rules of the road’’ of appropriate conduct with regard to copyright, plagiarism, Research and privacy-- core topics that compose digital literacy.

DL is the ability to understand and to use information from a variety of digital sources and regarded it simply as literacy in the digital age, (Gilster 1997). It is also the ability to read and comprehend the information items in their hypertext or multimedia formats which were then becoming available. It is, much more than that, a special kind of mindset or thinking.

Digital literacy can be defined as survival skill in the digital era. It constitutes a system of skills and strategies used by learners and users in digital environments.

By employing different types of digital literacy, users improve their performance and “survive” a variety of obstacles and stumbling blocks that lie in the way within this special medium. The literature is inconsistent in its use of the term “digital literacy”; some restrict the concept to the technical aspects of operating in digital environments, while others apply it in the context of cognitive and socio-emotional aspects of work in a computer environment.

Hypotheses of the study:

- 1- There is a statistically difference between the mean scores of the research group pupils in both the pre and post writing performance

- administration as a whole in favor of the post test score at 0.5.
- 2- There is a difference between the mean scores of both the pre and post writing performance administration as Subs kills at significance level (0.01) in favor of the post administration (with high mean).
 - 3- The research group pupils are generally satisfied about using the collaborative digital literacy skills activities in developing their EFL writing performance.
 - 4- The suggested collaborative digital literacy skills activities are effective in developing the EFL writing performance.

Delimitation of the study:

The current study was bound by the following delimited to:

- The study is conducted in Green Language School with 30 pupils in the sixth grade of the primary stage.
- The current study is concerned with developing the writing performance so the researcher depends on the following subskills: Vocabulary, Grammar, Structure and organization and Ideas / content.
- The study was conducted in the first term of the academic year 2022/2023.

Elements of Digital Literacy Skill:

Elements of Digital Literacy Skill consisted of 8 elements as follows:

- 1) Access: the ability to identify the source of the data, including the ability to acquire and collect the data and to retrieve such data for the repetitive usage.
- 2) Manage: the ability to use the resource which is correct and easy for assessment.
- 3) Integrate: the ability to relate with all other constituents. For the digital literacy, this also includes the ability to deduct and interpret

the meaning of the information via the ICT devices.

- 4) Evaluate: the ability to assess the timeliness and the usefulness of the information.
- 5) Create: the ability to understand and apply the advantage offered by the suitable media creating devices.
- 6) Communication: the ability to contact and interact with the other individual in the digital environment.
- 7) Analysis: the ability to understand the process, the logic and the objective of the created media. This includes the ability to check the difference of each person's interpretation on his own belief and behavior.
- 8) Synthesis: the ability to combine the information to in order to create the new knowledge.

Design of the study:

The current study adopted the one group treatment design along with mixed method incorporating both quantitative and qualitative method to investigate the effect of using collaborative digital literacy skills activities in developing EFI writing performance of primary school pupils.

The research group was selected from Green Language School, Qalyubia Governorate, in the sixth grade. The group was pre and post tested to determine the actual performance both in writing performance and attitude scale.

The research group was taught through the syllabus in their textbook (Oxford Discover 6) applying in the adopted treatment. (Appendices E)

The qualitative part was performed in the satisfaction questionnaire. On the other hand, the quantitative part was performed in the pre and post test of the research group pupils.

Participants of the study:

Participants in this study were thirty pupils in the sixth grade of the

primary stage selected from Green Language School, Qalyubia

Governorate during the first term of the academic year 2022-2023.

Two teachers were participated as raters.

Instruments:

The following instruments were prepared and used by the researcher:

3-4-1 Writing skills checklist

3-4-2 Rubrics for writing skills.

3-4-3 The pre-post writing performance test.

3-4-4 The suggested treatment

3-4-5 Satisfaction Questionnaire.

Results of the study:

Through the Statistical analysis, the results are:

3-1 There is a statistically difference between the mean scores of the research group pupils in both the pre and post writing performance administration as a whole in favor of the post test score at 0.5.

3-2 There is a statistically difference between the mean scores of both the pre and post writing performance administration as Subs kills at significance level (0.01) in favor of the post administration (with high mean).

3-3 The research group pupils are generally satisfied with using the collaborative digital literacy skills activities in developing their EFL writing performance.

3-4 The suggested collaborative digital literacy skills activities are effective in developing the EFL writing performance.

Findings of the study:

1- Using the suggested collaborative literacy skills activities developed the EFL writing performance for pupils.

2- Using the suggested treatment increased motivation and engagement of the primary stage pupils.

- 3- Supporting pupils with a Satisfaction questionnaire to measure their satisfaction reveals that they are very satisfied with the treatment.

Conclusion:

Based on the previous results, it can be concluded that:

4-1-Using the suggested collaborative

Digital literacy skills activities were effective in developing the EFL writing performance. This was obvious after administrating the post writing performance test. It was obvious through the research group pupils' gradual development through the treatment.

4-2-Using Varied activities is also effective with research group pupils.

They were more engaged to be involved in different digital activities. Thus, it is reflected on their satisfaction towards the treatment as a whole.

4-3-Using new techniques in teaching to motivate pupils and increase their participation in the suggested activities. They are exposed to new activities which encourage them to share and Collaborate with each other.

4-4-Pupils' satisfaction towards the suggested Treatment is very high.

According to the qualitative data analysis, it is obvious that the research group pupils were very satisfied with the applied treatment.

Recommendations:

In the light of the findings of the current Study, Some recommendations should be taken into consideration:

- 1-Teachers should admit all Pupils' writing responses to develop their writing performance.
2. More opportunities to practice writing performance should be provided to pupils.
3. Pupils should be encouraged as they are free to write emails, Persuasive letters or PowerPoint presentations.

- 4- Supportive environment affects the Pupils learning positively.
- 5- Teachers should consider their pupils as young writers; motivate and reward them during the academic year.
- 6- Collaborative digital literacy skills activities should be used in teaching and learning since it is significantly appropriate for the 21st century and the Covid 19 pandemic.
- 7-The programs of teacher preparation should be reconstructed in the light of the practical aspects of teaching which suit the 21 st century skills during dealing with different classroom Situations and circumstances.
- 8- Teachers should be well trained to encourage pupils' Collaboration, give them the opportunity to think pair and share which is reflected on their EFL writing performance.

Using Collaborative digital literacy skills activities is effective for teaching and developing writing performance

Suggestions for further research:

1. Using the Collaborative digital Literacy skills activities in developing writing performance in other different stages, such as: the prep and secondary stages.
- 2- Using new strategies to develop the FFL writing performance.
- 3- Using Collaborative digital literacy Skills activities in developing other language Skills.
- 4- Increasing teachers ' awareness concerning the usage of the Collaborative digital literacy skills activities.
- 5 -Applying the current Treatment on different pupils from different levels and different Communities.

References:

- Adas, D., & Bakir, A. (2013). Writing difficulties and new solutions: Blended learning as an approach to improve writing abilities. *International Journal of Humanities and Social Science*, 3(9), 254-266.
- A Z J Suwarni*, R Rahman and P D Iswara Elementary Education, Universitas Pendidikan Indonesia, Jl. Dr. Setiabudi No. 229, Bandung, Indonesia
- Barbara Leigh Smith and Jean T. MacGregor Collaborative Learning Approaches Collaborative.
- Bunch, G. C., Kibler, A., & Pimentel, S. (2012). Realizing opportunities for English learners in the common core English language arts and disciplinary literacy standards. Stanford, CA: Understanding Language Initiative
- Byrne, D. (1988). *Teaching Writing Skills*. Harlow: Longman. Cahyono, B. Y., & Mutiaraningrum, I. (2016). Indonesian EFL Teachers' Familiarity with and Opinion on the Internet-Based Teaching of Writing. *English Language Teaching*, 9(1), 199-208. <http://dx.doi.org/10.5539/elt.v9n1p199>
- Campbell, M. A. (2005). Cyber bullying: An old problem in a new guise? *Australian Journal of Guidance & Counseling*, 15(1), 68–76.
- Castells, M. (2010). *The rise of the network society* (2nd ed.). Chichester: Wiley Blackwell.
- D. Randy Garrison, Norman D. Vaughan 2008. *Blended Learning in Higher Education: Framework, Principles, and Guidelines*.
- Dobson, T., & Willinsky, J. (2009). Digital literacy. *The Cambridge handbook of literacy*, 286- 312.

- Dujcik, D. (2008). The effects of pre-writing strategy training guided by computer- based procedural facilitation on ESL students' strategy use, writing quantity, and writing quality. Unpublished Ph.D. thesis, University of South Florida.
- Erkan, D. Y., & Saban, A. I. (2011). Writing performance relative to writing apprehension, self-efficacy in writing, and attitudes towards writing: A correlational study in Turkish tertiary-level EFL. *The Asian EFL Journal Quarterly*, 13(1), 163-191.
- Eshet-Alkali, Y., & Amichal-Hamburger, Y. (2004). Experiments in digital literacy. *Cyber Psychology & Behavior*, 7(4), 421-429.
- European Commission. (2003). *eLearning: Better eLearning for Europe* Directorate-General for Education and Culture. Luxembourg: Office for Official Publications of the European Communities.
- Flower, L., & Hayes, J. R. (1981). College Composition and Communication. Vol. 32, No. 4. pp. 365-387. Retrieved May 2013, 22 from <http://www.jstor.org/stable/356600>.
- Gilster, P. (1997). *Digital literacy*. New York: Wiley.
- Graham, S., & Perin, D. (2007). *Writing Next: Effective Strategies to Improve Writing of Adolescents in Middle and High Schools*. A Report to Carnegie Corporation of New York. Alliance for Excellent Education.
- Hauck, M., Galley, R., & Warnecke, S. (2016). Researching participatory literacy and positioning in online learning communities. In F. Farr & L. Murray (Eds.), *The Routledge handbook of language learning and technology* (pp. 71–87). London: Routledge.
- Hussin, S., Abdullah, M. Y., Ismail, N., & Yoke, S. K. (2015). The Effects of CMC Applications on ESL Writing Anxiety among Postgraduate Students. *English Language Teaching*, 8(9), 167-172. <http://dx.doi.org/10.5539/elt.v8n9p167> .
-

- Jones, R. W. (2007). Learning and teaching in small groups: characteristics, benefits, problems and approaches. *Anaesthesia and intensive care*, 35(4), 587.
- Keshta, A. S., & Harb, I. I. (2013). The effectiveness of a blended learning program on developing Palestinian tenth graders' English writing skills. *Education Journal*, 2(6), 208-221. <http://dx.doi.org/10.11648/j.edu.20130206.12>
- Knobel, M. (2008). *Digital literacies: Concepts, policies and practices* (Vol. 30). Peter
- Lang mohammed, M. (2021). Using wikis to development writing performance among prospective English as a foreign language teachers .
- KnowledgeWorks. (2015). *The future of learning: Education in the era of partners in code*. KnowledgeWorks forecast 4.0. Retrieved from <http://www.knowledgeworks.org/sites/default/files/forecast-4-future-learningeducation-partners-code.pdf>
- Kuiper, E., Volman, M., & Terwel, J. (2009). Developing web literacy in collaborative inquiry activities. *Computers & Education*, 52, 668–680. doi:10.1016/j.compedu.2008.11.010
- Neuwirth, C. M., Kaufer, D. S., Chandhok, R., & Morris, J. H. (1994). Computer support for distributed collaborative writing: Defining parameters of interaction. In *Proceedings of the Conference on Computer-Supported Cooperative Work (CSCW '94)*, (pp. pp. 145-152). Oct. 22-26, Chapel Hill, NC: Association for Computing Machinery.
- Oakley, G., Pegrum, M., & Johnston, S. (2014). Introducing e-portfolios to pre-service teachers as tools for reflection and growth: Lessons learnt. *Asia-Pacific Journal of Teacher Education*, 42(1), 36–50.
-

- Pegrum, M. (2014b). Mobile literacy: Navigating new learning opportunities and obligations. In W. C.-C. Chu, H.-C. Chao, & L. C. Jain (Eds.), *The Proceedings of International Computer Symposium (ICS) 2014*, vol. 1, (pp. 660–667). Taichung: Dept of Computer Science, Tunghai University.
- Rajagopal, K., Joosten-ten Brinke, D., Van Bruggen, J., & Sloep, P. B. (2012). Understanding personal learning networks: Their structure, content and the networking skills needed to optimally use them. *First Monday*, 17(1). Retrieved from <http://firstmonday.org/htbin/cgiwrap/bin/ojs/index.php/fm/article/viewArticle/3559/31>
- Raofi, S., Chan, S. H., Mukundan, J., & Rashid, S. M. (2014). A Qualitative Study into L2 Writing Strategies of University Students. *English Language Teaching*, 7(11), 39-45. <http://dx.doi.org/10.5539/elt.v7n11p39>
- Rybushkina, S., & Krasnova, t. (2015). Key factors to use blended learning in teaching foreign languages in Russian engineering universities. *EDULEARN15 Proceedings*, 6886-6892.
- Rainie, L., & Wellman, B. (2012). *Networked: The new social operating system*. Cambridge, MA: MIT Press. *JRCIET Vol. 7, No.1 January 2021*.
- Soby, M. (2008). Digital competence – From education policy to pedagogy: The Norwegian context. In M. K. Colin Lankshear (Ed.), *Digital literacies – Concepts, policies and practice* (pp. 119-150). New York: Peter Lang Publishing.
- Sun, Y. C., & Chang, Y. J. (2012). Blogging to learn- Becoming EFL academic writers through collaborative dialogues. *Language Learning & Technology*, 16(1), 43-61.
- Tapscott, D. (2009). *Grown up digital: How the net generation is changing your world*. New York: McGraw-Hill.
-

- Warschauer, M. (1997). Computer-mediated collaborative learning: Theory and practice. *Modern language journal*, 470-481.
- Ware, P. D., & Warschauer, M. (2006). Electronic feedback and second language writing. *Feedback in second language writing: Contexts and issues*, 105-122.
- Wei Jiang May 2018 *Language Learning In Computer-Mediated Collaborative Writing* <https://08102y1ou-1105-y-https-link-springer-com.mplbci.ekb.eg/content/pdf/10.1007%2F978-981-16-2129-1.pdf>
- Wenger, E. (1998). *Communities of Practice: Learning, Meaning, and Identity*. Cambridge, MA: Harvard University Press.
- Wenger, E., McDermott, R., & Snyder, W. M. (2002). *Cultivating communities of practice: A guide to managing knowledge*. Boston, MA: Harvard Business School Press.
- Yancey, K. B. (2009). *Writing in the 21st Century*. National Council of Teachers of English.
- Young, K. S. (1996). Internet addiction: The emergence of a new clinical disorder. *CyberPsychology & Behavior*, 1(3), 237-244. doi:10.1089/cpb.1998.