The Effect of a Connectivism -Based Program on Developing Secondary School Students' Communicative Writing Skills

Eman Abdelfattah Mohammedeen [1],Dr. Gamal Muhammad Shehata [2], Dr. Amer Bakeer Ali [3]

[1] *M.A. Researcher , Faculty of Education in Qena, South Valley University, Egypt.*

[2] *Professor Emeritus of TEFL ،Faculty of Education ،Minia University, Egypt.*

[3] *Professor Emeritus of TEFL ،Faculty of Education in Qena ،South Valley University, Egypt.*

Abstract

The current research aimed to explore the effect of a connectivism-based program on developing secondary school students' communicative writing skills. The study used a quasi-experimental research design. Thirty first-year secondary school students enrolled in Tema Secondary School for Girls, Sohag, Egypt, participated in the study for four weeks. The study instruments included a pre-post writing test which was divided into two types of writing: descriptive and narrative, and a scale for scoring writing (prepared by the researcher). Results of the study revealed that the students' post-performance of the writing test was better than their pre-performance. The findings of the study indicated that using a connectivism-based program had positive effects on secondary school students' communicative writing skills. In the light of the findings of the study, recommendations and suggestions for further research were offered.

Keywords: Connectivism-based program, Communicative writing skills, Secondary school students.

Introduction

English is regarded as an international language since it is spoken by an excessive number of people worldwide. English is used as a language of communication by people from various cultures, racial groups, and social classes. It is also the language of science and technology. We devote time and resources to assisting our students in learning English and using it in everyday situations for various reasons.

There are four main skills in the English language: listening, speaking, reading, and writing. The ability to write is essential for both connecting to the outside world and for interpersonal communication. It is viewed as a process between writers and readers. To write well means to make the reader interested and enjoy what he reads, and the piece of writing is organized, coherent, and easy to follow.

According to Jabali (2018), writing is a fundamental kind of communication crucial for creating information, fostering thought, and creating meaning. It encourages the evaluation of new knowledge and its integration with prior knowledge. Writing is a unique method of learning that supports the growth of thinking and has several characteristics that specifically complement several powerful learning techniques. Additionally, writing improves higher cognitive skills like analysis and synthesis. People are helped to understand things in all knowledge disciplines by the impressive and straightforward presentation of ideas and experiences.

Through writing, structured knowledge of texts is transferred. To accomplish this, students must comprehend what they have read well and organize it in their minds. According to Akyol (2010), writing is the ability to produce the symbols and signs needed for idea expression kinesthetically. Writing is a method to communicate with others and express ourselves.

Writing and numerous researchers assert its importance for the EFL/ESL students. For example, Archibald (2001) postulated that learning to write in English gives students a voice in their culture and improves language learning.

S/he stated that engaging and difficult writing exercises bring diversity to writing instruction and help students acquire crucial literacy skills.

As a result, s/he counsels teachers to provide students with the opportunity to write about important topics, engage in various writing activities, and help students feel valued for their writing.

According to Ariana (2010), writing helps students develop crucial skills, including independence, comprehensibility, fluency, and creativity.

These skills enable students to organize their ideas and approach the massage effectively in their minds.

Aziz (2011) asserted that writing is a dynamic technique for communicating ideas. In this way, s/he expressed how writing and speaking both serve the same purpose: conveying knowledge.

In addition to serving as a means of communication, it is a key classroom activity and a crucial language activity, such as composing, summarizing, translating, written exercises, and tests.

Despite the value of writing as a form of interpersonal communication, EFL students face certain difficulties with it. Su Ping et al. (2019) assert that writing is a tool for making sense of the world. Unfortunately, writing in English seems to be difficult for many EFL students.

For instance, writing is challenging since it requires coming up with words to describe concepts, creating sentences to explain those ideas, and frequently combining logical and narrative structures to organize those phrases.

The writer must go even further if writing requires inventiveness. The highest level of focus is necessary for this process.

It is a solitary and private process that functions best in an environment free of interruptions.

According to Ramlal and Augustin (2019), writing extensive, reasonable, coherent, and fluently is perhaps the most difficult thing to do in the language since the reader must be able to understand what has been written without needing explanation or relying on the writer's tone of voice or expression.

So, writing instruction is therefore essential for EFL students.

One of the approaches used in teaching writing is a communicative approach. According to the communicative approach, writing should be taught in style similar to how it is utilized in the real world.

The ideas that communicative writing involves are (1) goal or meaning, (2) audience, and (3) a link to the reading. English language teachers must assist students in developing their communicative writing abilities to be effective communicators throughout their lives (Matsubara, 2001).

Because we live in the digital age, the relationship between learning and technology has become close. Technology has created a bridge that students and instructors may use to communicate and improve their abilities, which will aid them in their studies and daily lives (Hollenbeck & Hollenbeck, 2004). Additionally, it adds interest to the lessons (Alkahani, 2011).

AL Khuail (2017) asserts that using technology by EFL students makes them feel more self-assured, driven, and responsible.

Technological advancements help to support the educational process.

Online media transforms into an informational tool and a learning resource (Evans, 2014). As a result, it is currently possible to complete the learning resources, which come not only from lessons or teachers but also from material gathered from internet media.

It is considered proper to develop global information using internet media as learning materials because there are no time or distance restrictions (Hamid et

al., 2015.

According to Liu (2009), using technology to teach and learn a foreign language has become a new trend in foreign language education across the globe. Technology may become more important in the classroom and during independent study as computer-assisted learning replaces the conventional use of chalk and the board.

One innovative strategy is to make students search for information about a certain subject using online resources. Mahrooqi&Troudi (2014) mention that the use of technology in language teaching creates a learning environment focused on the students' needs.

It also permits teachers to change up their lesson plans and presentations.

Behaviorism and constructivism are two philosophies of learning and knowledge that have lagged behind societal and technological advancements. Therefore, connectivism is viewed as an alternative theory of learning that corrects the shortcomings of existing theoretical frameworks.

According to Downes (2007), connectivism is a learning theory that holds that knowledge comprises networked relationships. Networks are linkages between different entities, including websites, blogs, databases, coworkers, and specialists. Thus, learning is the capacity to create and navigate those networks. Kop and Hill (2008) assert that connectivism uses the network approach to learning.

These networks are internal, like brain networks, and external, like communication networks.

1.1 Statement of the Problem:

Based on the above, the problem of the current research could be stated in the following statement: Secondary school students' level of EFL communicative writing skills was revealed to be poor; thus, the research aimed to investigate

the effect of using the connectivism –based program on developing those skills.

More specifically, the present research addressed the following question: "What is the effect of using a connectivism –based program on Developing Secondary School Students' Communicative writing skills?

1.2 Objectives

This research attempted to:

1. Investigate the effect of using connectivism –based program on developing first-year secondary school students' descriptive writing skills.

2. Investigate the effect of using connectivism –based program on developing the second-year secondary school students' narrative writing skills.

1.3 Hypotheses

1. There would be a statistically significant difference between the participants' mean scores on the overall writing pre-post test in favor of the post-test.

2. There would be statistically significant differences between the mean scores of the participants' writing sub-skills on the pre-post test in favor of the post-test.

2. Literature Review.
2.1 Communicative Writing

Writing is a necessary communicative language skill that requires mental work to prepare the sentences and combine them to be meaningful and communicative. It cannot be learned independently of other language skills. It is a strategy for making one's feelings, thoughts, and experiences visible and tangible. It's a technique that helps writers balance many factors, including language, punctuation, spelling, mechanics, and concerns with content,

organization, intent, and audience (Jahin &Idrees, 2012).

Bruning and Horn (2000) stated that writing is a reflective activity that calls for free time to ponder on the subject at hand as well as to evaluate and deconstruct data. It encourages introspection, compels students to concentrate and arrange their ideas, and develops their ability to synthesize, assess, and criticize them.

Additionally, it incorporates a variety of cognitive and metacognitive processes, including planning, organizing, outlining, preparation, and revising. Because of this, students must engage in various cognitive processes during the writing process to successfully express their feelings and thoughts and convey important information to the readers.

According to Reigstad (2008), writing is one of the most crucial means of communication because spoken communication and comprehension of how language functions are impossible without it. Additionally, Hasbollah (2010) mentioned that effective writing allows students to go beyond what they have learned and enhances their language skills regarding fluency, accuracy, and appropriateness.

It also helps students reinforce their knowledge of grammatical structure, idioms, and vocabulary.

Students must have strong academic writing and communication skills.

Badenhorst (2008) claimed that writing is one of the cornerstones of academic involvement. Students must learn, take notes, write, and study.

Students also need to write and think to digest their thoughts and incorporate fresh ones so they may be judged and evaluated.

According to Reigstad (2008), writing is the most crucial English language skill.

However, it is a difficult skill to master.

This is due to the requirement that learners have, such as prior knowledge of

the language they are learning, including vocabulary, proper word, phrase usage, and rhetorical strategies for persuasively explaining information to the reader.

2.1.1 Writing Challenges

The discussion above suggests that writing is a complex and challenging skill to learn, especially for EFL students.

To create a final, well-written text, it necessitates that students go through many steps, such as brainstorming, drafting, and revising, which call for specialized knowledge of how to produce thoughts, organize them coherently, revise their text for clearer meanings, and edit it for appropriate grammar (Brown, 2001).

Many writing difficulties are frequently attributed to deficiencies in instruction and learning, which may make it difficult for many students to adjust to the secondary level requirements for academic writing (Kim et al., 2010). Weshah and Tomok (2011) contend that most high school graduates possess poor levels of English language proficiency, particularly in their writing and communication abilities.

 Teachers must therefore overcome two challenges. First, they should develop engaging classroom activities to help students learn specific writing skills at each stage (Seow, 1995). Second, they should create creative instructional strategies and assignments to develop their students' writing skills.

The growth of social networking sites has opened up new opportunities for authentic communication between EFL teachers and language learners, which can be used to develop writing ability.

2.2 Connectivism Theory

Although there is disagreement about whether connectivism is a learning theory or a theoretical framework, it has emerged as a defining paradigm for online teaching and learning pedagogy. Connectivism is the chosen option for the knowledge that leaders and managers require for e-learning settings because it incorporates ideas from the theories of collage, chaos, and self-organization in its formulation. One theory cannot fully explain how e-learning works since other theories may need to work together to produce a powerful online learning environment (Bell, 2011).

Connectivism theory positively affects e-learning in education because it helps explain how learning happens in a digitally mediated context. Connectivism is described as a reflection of modern society, which is complicated, socially connected, globally interconnected, and increasingly mediated by technological improvements.

In the twenty-first century, people think differently.

The "know-how and know-what is being supplemented with the know-where (the understanding of where to find the knowledge needed)" (Siemens, 2011:1).

This is because students today value universities more for what they experience inside and outside of it, rather than just the type and quality of the courses they take inside the institution. Students lose motivation, for instance, if they enter the workforce without the necessary communication skills and struggle to cooperate in virtual teams. Connectivism encourages remaining up to date, planning for the future, and addressing instances where "performance is required in the absence of complete understanding" (Siemens, 2011).

2.2.2 Connectivism as Learning Theory

Siemens (2004) proposed that connectivism might be a learning theory for the following reasons.

First, connectivism is defined as improving a student's learning process by utilizing the information and perspective gained by adding a personal network.

The learner can only gain the perspective and variety of opinions necessary to develop the ability to make important judgments through these personal networks. Since it is impossible to experience everything, collaboration allows the learner to share and gain knowledge.

Second, a student cannot possibly know everything necessary to critically analyze any given circumstance due to the sheer volume of information accessible.

Learners are more motivated to pursue information with fast access to vast knowledge databases.

Such a talent for knowledge acquisition can aid in research and the interpretation of patterns.

Third, due to the fast change brought on by technology, classical learning theories are severely constrained in their ability to explain learning. Connectivism is defined as knowledge that can be applied, where knowing where to acquire knowledge can be more crucial than knowing how or what it includes.

However, there are opposing arguments that connectivism is not a valid learning theory.

First of all, despite being an exciting development for discussion, connectivism is not a wholly original method of teaching or learning.

Instead, there is overlap in concepts when compared to well-established learning theories.

According to Skinner, a defined boundary is essential for a distinct learning theory (Duke, Harper, and Johnston, 2013).

2.2.3 Connectivism and Foreign Language Learning

Researchers and working instructors have mostly examined the potential applications of connectivism in teaching writing. For instance, Vesela (2013) thoroughly explained how the connectivist concepts might be used in studying foreign languages in her paper titled "Connectivism in Foreign Language Education." She backed up Siemens' theories by pointing out that, from a connectivist perspective, one of the key goals of language education is to assist the learner in recognizing a structure inside what appears to be chaos. The English tense system, for instance, can be used as a model since, despite its rigid logic, learners typically find it incomprehensible.

Particularly, the non-linear system of language is continually evolving. This can be seen by the fact that as new words are added to the lexicon based on word-formation principles, terms that are not used disappear.

Additionally, learners of foreign languages must be able to see a language not as a structure but rather as a network of networks (the network of morphology is connected to the networks of syntax, lexicology, and phonology to create a network that is connected to the network of semantics), and then to understand the relationships between the linguistic components within these networks.

2.2.4 Connectivism and the Use of Technology

The connectivism theory developed by George Siemens and Stephen Downes will probably be debated for many years. Still, it is undeniably a significant school of thought that is directly relevant to the use of technology in the classroom today. Online education is unquestionably a direct technological reaction to various learning cultures, approaches, and inspirations.

With the aid of Web3D, which combines 3D interactive visuals and web technology, instructors could provide students with an interactive, lifelike environment online (Chittaro&Ranon, 2007).

2.2.4.1 Connectivism-based collaborative e-learning platforms

 Research has used social networking sites to involve students in a collaborative, connectivist-based e-learning intervention.

Alzain (2019), for instance, recognized social networks like Edmodo and Google as supporting collaborative e-learning with university students. Results showed that expressing ideas on both sites enabled students to interact online with national and international organizations.

Similar findings were made by Ansari and Khan (2020), who discovered that students could be more imaginative and research-focused while using online social media for collaborative learning. It promoted online interaction with teachers, peers, and other people to share knowledge.

Edmodo is one of the most recent tools for learning foreign languages.

It has been recognized as one of the best online educational learning platforms that link teachers and students and foster innovation, creativity, and active participation (Hart, 2019).

This website is a free and private learning network that enables teachers to manage accounts only for their students.

Students who register in the group at www.edmodo.com using a group code are given access to this website.

Additionally, Kaba (2018) asserted that Edmodo is supported in many languages, so users can choose their preferred language when sharing links to websites like forms and YouTube.

2.2 Studies of using connectivism theory to develop language skills.

 Various empirical studies have been conducted to the extent to which connectivism can be used to improve foreign language learning. For example, Crawford (2017) explored how young learners interact with digital environments for further language learning goals. The study found that these settings benefit additional language learners by providing corrective feedback. In a comparable setting, Poo and Funn (2017) employed a connectivist learning technique based on a cloud-learning environment for vocabulary learning.

The findings showed that the employed technique encouraged participation in vocabulary learning activities and interaction with the learning materials.

 Al-Shehri (2011) exposed thirty-three university students taking an English language course using their mobile phones while considering Connectivism as a novel strategy for increasing mobile language learning.

The findings demonstrated that connectivism offered a framework for learning that helped create relevant sources of knowledge.

Additionally, the study by Borna and Fouladchang (2018) revealed that the use of connectivism as a teaching strategy was found to affect EFL students' motivational outcomes, including academic self-efficacy and task value through enhancing social contacts among the participants.

Fifth and Raya (2008) investigated the possibility of improving students' capacity to write argumentative essays using Edmodo as an online tool in an EFL writing course.

This study was conducted in a classroom with fifteen EFL students.

The use of Edmodo in the instruction of EFL writing has greatly improved

students' capacity to write argumentative essays, according to data collected through qualitative and quantitative techniques.

Alfian (2013) also investigated the effect of employing Edmodo on teaching writing to Al- the tenth grade of Al-Azhar students.

The use of Edmodo in the process approach to writing enhanced peer review, self-editing, and revising, which improved students' writing quality, according to data gathered through questionnaires and interviews.

Thongmak (2013) sought to compare Facebook to Edmodo in his study of social networks to determine the advantages of using Facebook as a tool for classroom collaboration.

The findings showed that Edmodo was considered superior in being useful, approachable, and successful in educational contexts of social networking.

Fauzi (2015) conducted research to investigate how well Edmodo helped students become more proficient at writing recount texts.

Nine students were examined before and after the experiment as part of the study's pre-experimental design, which was quantitative in nature.

The findings of the pre-test and post-test revealed a considerable difference in favor of the post-test.

Furthermore, the ability to freely communicate their thoughts in a safe learning atmosphere greatly improved the motivation of students to write.

Shams-Abadi, Ahmadi, and Mehrdad (2015) explored how Edmodo affected the writing of forty EFL students enrolled in advanced writing courses at the Iranian English Institute.

A quasi-experimental method was adopted.

The students were divided into experimental and control groups at random, with the experimental group receiving teaching by using Edmodo.

The findings showed that using Edmodo in writing assignments can help students write better since it gives them quick access to online resources, lets

them compare their writings with those of their peers, and lets them stay in touch with their teacher and classmates at any time.

Additionally, Purnawarman et al. (2016) researched seventeen participants from the eleventh grade of a senior high school in Bandung, Indonesia, using Edmodo as a virtual learning platform with a genre-based method for teaching writing. Results from a qualitative methodology indicated that Edmodo was the most successful blended learning strategy for GBA writing cycles.

This Edmodo deployment improved the cognitive involvement of students throughout lessons and learning activities.

Altunkaya and Ayrancı (2020) investigated the impact of using Edmodo-assisted academic writing education on students' achievement.

The study adopted a quasi-experimental design with a pre-test and post-test control group. The study participants were 108 students enrolled in the spring semester of the 2018-2019 academic year in a state university's Guidance and Psychological Counseling Program.

They were divided into 54 in the experimental and 54 in the control group. The findings of the quantitative analysis indicated that the experimental group had higher academic writing achievement compared to the control group.

3. Methodology

3.1 Participants

The research participants were thirty students enrolled in the first year of the secondary stage at Tema secondary school for Girls during the second semester of the academic year 2020-2021.

3.2 Instruments

The researcher developed a paragraph writing test used as a pre-test and a post-test to achieve the study objective.

The test was divided into two types of writing: descriptive and narrative.

As a pre-test it was used to identify the students' level in communicative writing before beginning the experiment.

Thus the progress achieved could be attributed to the educational content they have been exposed to. As a post-test, it was used to investigate the effect of using the connectivism based-program to develop the communicative writing skills of that group.

As for scoring reliability, it was made sure by training three raters to utilize the scale in marking students' writing. Each rater marked the paragraphs on his own. The average of the three raters' marks was taken.

3.3 Variables of the study

A - The independent variable:
A connectivism –based program.

B - The dependent variables:
Communicative Writing skills

3.4 The Study procedures:

The researcher followed these procedures to collect data for the study:

1) Selecting the subjects from the first year secondary stage at Tema secondary school for Girls during the second semester of the academic year 2020-2021.

2) Reviewing related literature.

3) Establishing the suitability and validity of the instructional program by a jury.

4) Designing the connectivism-based program.

5) Designing a pre-post paragraph writing test.

6) Establishing the validity and reliability of the" pre-post paragraph writing test.

7) Getting the approval of the College Dean, Deputy Minister of Education in

Sohag, and Director of Tema Educational Directorate to conduct the study.

8) Pre-testing the treatment group to measure their paragraph writing performance on March 15, 2021.

Table No. (1)

Means, standard deviations, t-value and significance of differences of the experimental groups in the pre-performance of the descriptive writing

Test		Experimental group N= 30		df	t-value
Type	Skills	m e a n	S t . d v		
Descriptive	Content	1.26	1.38	29	0.19
	Organization &coherence	0.43	0.67	29	1.02
	Word choice	1.13	0.76	29	1.59
	Mechanics	0.83	0.96	29	1.34
	Grammar	1.46	1.28	29	0.89
	Total score	**5.11**	**3.20**	**29**	**1.38**

Tabulated 't' = 2.02 at (0.05) level

Table (1) shows that there were no statistically significant differences at (0.05) level between the mean scores of the experimental group on the pre-performance of the descriptive writing test.

The calculated t-values in all the sub-skills and the total score of the test were lower than its tabulated value.

This means that the pre-performance of the students on descriptive writing was poor.

Table No. (2)

Means, standard deviations, t-value and significance of differences of the experimental groups in the pre-performance of the narrative writing

Test		Experimental group N= 30		df	t-value
Type	**Skills**	**m e a n**	**S t . d v**		
Narrative	Content	1.32	0.98	29	1.39
	Organization &coherence	0.63	0.47	29	0.92
	Word choice	1.60	0.36	29	1.89
	Mechanics	1.10	0.86	29	1.27
	Grammar	1.62	1.14	29	1.55
	Total score	**6.27**	**2.80**	**29**	**1.57**

Tabulated 't' = 2.02 at (0.05) level

Table (2) shows that there were no statistically significant differences at (0.05) level between the mean scores of the experimental group on the pre-performance of the narrative writing test.

The calculated t-values in all the sub-skills and the total score of the test were lower than its tabulated value.

This means that the pre-performance of the students on narrative writing was poor.

9) Post- testing the treatment group and the non-treatment group students on April, 23, 2021, to measure their progress in paragraph writing after conducting the treatment.

4.Findings and Discussion

The results of the analysis of the post-test scores are shown in tables 2 and 3.

Table (3)
Means, standard deviations, t-value and significance of differences of the experimental group on the post-performance of the overall writing test

Test	Experimental Group N= 30		df	t-value
	m e a n	S t . d v		
Overall Score	10.34	2.70	29	13.80

Tabulated 't' = 2.02 at (0.05) level

Table (3) shows that there was a statistically significant difference at (0.05) level between the mean scores of the experimental group on the pre-performance of the test and the post-performance favoring the post-performance in overall writing test. The students' scores showed high development in writing test where the calculated t-value was greater than its tabulated value. The results confirm the validity of the first hypothesis.

4.1.2 The second hypothesis of the study

The second hypothesis predicted that the experimental group would achieve higher performance on the skills of the writing test. Analysis showed that the experimental group on the post performance achieved significantly higher than the pre performance on the descriptive writing skills as shown in table 4 and the narrative writing skills as shown in table 5.

Table (4)

Means, standard deviations, t-value and significance of differences of the experimental group on the post-performance of the skills of the descriptive writing

Test		Experimental group N= 30		df	t-value
Type	Skills	m e a n	S t . d v		
Descriptive	Content	1.98	0.21	29	10.04
	Organization &coherence	1.72	0.53	29	6.80
	Word choice	1.96	0.47	29	7.93
	Mechanics	2.50	0.57	29	7.40
	Grammar	2.58	0.50	29	10.05
	Total score	**10.74**	**2.14**	**29**	**18.14**

Tabulated 't' = 2.02 at (0.05) level

Table (4) shows that there were statistically significant differences at (0.05) level between the mean scores of the experimental group on the pre-performance of the test and the post-performance favoring the post-performance in all the skills. The students' scores showed high development in writing test where the calculated t-value was greater than its tabulated value. The results confirm the validity of the second hypothesis.

Table (5)

Means, standard deviations, t-value and significance of differences of the experimental group on the post-performance of the skills of the descriptive writing

Test		Experimental group N= 30		df	t-value
Type	Skills	m e a n	S t . d v		
Narrative	Content	1.87	0.46	2 9	9.06
	Organization &coherence	1.90	0.58	2 9	8.40
	Word choice	3.06	1.17	2 9	10.12
	Mechanics	2.40	1.30	2 9	7.22
	Grammar	2.52	1.22	2 9	9.90
	Total score	**11.75**	**2.17**	**2 9**	19.04

4.1 Discussion of the findings:

The development of the experimental group students' in the descriptive and narrative writing performance could be attributed to different reasons.

For instance, For example, the absence of the practice of such skills in the writing class made the students more ambitious to improve their writing skills. As a result of Edmodo, a platform based on connectivism theory, students' writing abilities were shown to have greatly improved in terms of paragraph content, coherence, organization, word choice, mechanics, and grammar.

When students' paragraph writings were examined before the treatment, the starting paragraphs' main ideas were not presented properly, and some supporting sentences were unrelated to the topic sentence. This demonstrated

that students did not sufficiently jot down ideas and concepts during the pre-writing phase to enable them to construct coherent sentences.

Also, grammar and punctuation mistakes were discovered because students failed to revise their paragraphs after writing.

After the treatment, students' use of Edmodo has allowed them to collaborate on idea generation, write clear sentences independently, and share descriptive writing with their classmates and teachers while utilizing the site's unique capabilities. Quick feedback was given when students brainstormed aloud with their teacher and peers in the Edmodo comment section.

Students were taught to distinguish between main sentences and supporting sentences using the quiz feature.

They uploaded their final drafts of their paragraphs and revised their submissions as necessary using the assignment tool.

Students gradually gained a deeper understanding of the writing process and the procedures to be followed before beginning any writing task.

Students' writing abilities may have improved because of Edmodo's collaborative environment. Hankins (2015) claimed that Edmodo offers collaborative features that help students increase their writing performance. Edmodo gave EFL students plenty of chances to lay a strong foundation for their teamwork and boosted their motivation. Students assisted one another on Edmodo, intending to produce high-quality paragraph writing.

Additionally, Edmodo provided a very safe and welcoming environment, especially for timid and less engaged students, who were more willing to connect, discuss, and share any ideas or comments via Edmodo than in-person in-class contact (Thongmak, 2013).

Additionally, Edmodo's user-friendly interface encouraged students to expand their knowledge outside of the classroom and increased their sense of autonomy in the classroom.

This all comes down to Elliot (2000), who recognized that motivation among learners substantially impacts the rates and success of learning a foreign or second language.

According to Elliott (2000), motivation is a psychological condition that spurs us on to take action, pulls us in a particular direction, and keeps us occupied with particular activities. It is assumed that students' motivation plays a significant part in influencing how well the learning process works to achieve the learning goal and how engaged they are.

They often have more opportunities to teach and learn since they are more daring in how they share their thoughts and practice.

They invest a lot of effort into studying English because they enjoy it, want to learn it as much as possible, and believe it to be a crucial component of their educational plans. They are therefore willing to develop their writing skills.

Additionally, using a different color while giving feedback, such as recast, may have made students more conscious of their mistakes and helped them grasp the purpose of the feedback.

As Edmodo offers the chance to get students interested in writing, it is feasible to create a collaborative learning environment where students support one another. They can communicate with their teacher and classmates on Edmodo at any time during the week when they are not in class.

Learning extends outside the classroom and takes place throughout the week, increasing students' motivation and creativity, boosting their self-efficacy and success, and helping them feel less anxious when writing.

5. Recommendations and Suggestions for Further Research

5.1 Recommendations:

In light of the current study findings, the following recommendations are important for

1. Teachers

Writing classes commonly seem not so interesting for the students. A teacher should use interesting techniques in the teaching and learning processes. Connectivism theory (using Edmodo) is one of the interesting techniques that can be used in teaching writing because it contains many pictures, colors, videos, and hyperlinks that attract students. Teachers should exploit training opportunities to increase their knowledge and expertise in teaching reading via Edmodo.

2. Students

Students should get motivated to learn writing. They should practice all the activities in the teaching and learning process in groups or individually. Students should also not be afraid of making mistakes and should keep trying to write more. They should practice writing through Edmodo at home.

3. Researchers

This study investigated connectivism theory as a teaching technique to improve students' writing skills in secondary school.

It is expected that the result of this study can be used as an additional reference in conducting more studies to enhance students' writing skills.

5.2 Suggestions for further research

In the light of the current study findings, the researcher suggests the following further studies:

1) The present study might be replicated using other participants from elementary school students.

2) The present study might be replicated using other participants from different stages of education.

3) Future study is needed to investigate the effectiveness of using connectivism theory in developing listening skills.

4) Future study is needed to investigate the effectiveness of using connectivism theory in developing speaking skills.

5) Future study is needed to investigate the effectiveness of using connectivism theory in developing reading skills.

References

Alfian, A. (2013). Micro-blogging assisted learning strategy in teaching writing: A classroom action research at the tenth year students of SMA Al-Azhar BSD in 2011/2012 academic year (Unpublished master's thesis). Faculty of Tarbiya and Teacher Training, State Islamic University Syarif Hidayatullah, Jakarta.

Al-Shehri, S. (2011). Connectivism: A new pathway for theorising and promoting mobile language learning. International Journal of Innovation and Leadership on the Teaching of Humanities, 1(2), 10- 31.

Altunkaya, H., & Ayrancı, B. (2020). The use of Edmodo in academic writing education. Journal of Language and Linguistic Studies, 16(1 .(

Alzain, H. A. (2019). The role of social networks in supporting collaborative e-learning based on Connectivism Theory among students of PNU. Turkish Online Journal of Distance Education, 20(2), 46-63.

Bell, F. (2010). Connectivism: Its place in theory-informed research and innovation in technology-enabled learning. In the International Review of Research in Open and Distance Learning, 12(3), (pp. 98-118 .(

Borna, M. & Fouladchang, M. (2018). The motivational outcomes of connectivism theory in EFL. Modern Journal of Language Teaching Methods (MJLTM), 8(2), 101-112.

Brown, H. D. (2001). Teaching by principles: An interactive approach to language pedagogy (2nd ed.). New York, NY: Addison Wesley Longman.

Bruning, R. ve Horn, C. (2000). Developing motivation to write. Educational Psychologist, 35:(1), 25–37.

Chittaro, L.&Ranon, R. (2007) Web3D technologies in learning, education, and training: Motivations, issues, opportunities, Computers & Education (49), 3–18

Crawford, K. A. (2017). Connecting Digital Environments to Additional Language Learning in Schools.

Downes, S. (2007). What Connectivism is. Half an Hour. Available at: http://halfanhour.blogspot.com.eg/2007/02/what-connectivism-is.html

Duke, B., Harper, G. & Johnston, M (2013). Connectivism as a Digital Age Learning Theory. 4 The International HETL Review, Special Issue, 4-13 .

Elliot, Stephen. 2000. Educational Psychology: Effective Effective Learning. New York: McGraw Hill Company

Fauzi, A. (2015). The effectiveness of Edmodo in increasing students' writing skills in recount text (An experimental study towards the first graders of Man Rejotangan in the academic year 2014/2015)

Kim, C., Mendenhall, A., & Johnson, T. (2010). A Design Framework for an Online English Writing Course. In J. M. Spector, D. Ifenthaler, P. Isaias.

Kop, R. & Hill, A. (2008).Connectivism: Learning theory of the future or

 vestige of the past? International Review of Research in Open and Distance Learning, 9 (3.(

Liu, I. (2009). A survey of EFL learners' attitudes toward information and communication technologies. English Language Teaching, 2 (4): 101-106.

Mahrooqi, R & Troudi, S. (2014). Using Technology in Foreign Language Teaching, Cambridge Scholars Publishing, UK .

Matsubara, Y. (2001). Communicative Writing: Teaching Japanese High School Students to Use Writing to Communicate in English.

Poo, S. M., & Funn, P. L. (2017). Using Metacognitive Awareness in Learning Vocabulary with

 Cloud-Based Immersive Technology. International Journal of Information and Education Technology, 7(2), 114.

Purnawarman, P., Susilawati, S., & Sundayana, W. (2016). The use of Edmodo in teaching writing in a blended learning setting. Indonesian Journal of Applied Linguistics, 5(2), 242-252.

Seow, A. (1995). The writing process and process writing. In J. Richards, & W. Renendya (Eds.), Methodology in language teaching: An anthology of current practice (pp. 315-320). Cambridge: Cambridge University Press. https://doi.org/10.1017/CBO9780511667190.044

Shams-Abadi, B. B., Ahmadi, S. D., & Mehrdad, A. G. (2015). The effect of Edmodo on EFL learners' writing performance. International Journal of Educational Investigations, 2(2), 88-97.

Siemens, G. (2004). Connectivism: A Learning Theory for the Digital Age. Available at:

https://www.academia.edu/2857237/Connectivism_a_learning_theory_for_the_digital_age

Siemens, G., & Conole, G. (2011). Connectivism: Design and delivery of networked social learning. International Review of Research in Open and Distance Learning, 12(3).

Thongmak, M. (2013). The social network system in the classroom: Antecedents of Edmodo© adoption. Journal of e-Learning and Higher Education, 2013(1), 1-15 .

 Veselá, K (2013). Connectivism in Foreign Language Education. Available at: https://www.researchgate.net/publication/262764353