



KEMENTERIAN PENDIDIKAN, KEBUDAYAAN,
RISET, DAN TEKNOLOGI
UNIVERSITAS MULAWARMAN

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KEPUTUSAN REKTOR UNIVERSITAS MULAWARMAN

NOMOR 2316 /UN17/HK/2021

TENTANG

**TIM PENELITIAN FAKULTAS ILMU BUDAYA
UNIVERSITAS MULAWARMAN TAHUN 2021**

REKTOR UNIVERSITAS MULAWARMAN,

- Menimbang :**
- bahwa Dekan Fakultas Ilmu Budaya Universitas Mulawarman telah memohon kepada Rektor Universitas Mulawarman untuk menerbitkan Surat Keputusan Rektor Universitas Mulawarman tentang Tim Penelitian Fakultas Ilmu Budaya Universitas Mulawarman tahun 2021 melalui Surat Nomor 350/UN17.14/SK/2021 tanggal 19 Agustus 2021;
 - bahwa untuk keperluan butir a di atas perlu diatur dengan Surat Keputusan Rektor Universitas Mulawarman.
- Mengingat :**
- Undang-Undang RI Nomor 20 Tahun 2003 tentang Sistem Pendidikan Nasional;
 - Undang-Undang RI Nomor 12 Tahun 2012 tentang Pendidikan Tinggi;
 - Peraturan Pemerintah RI Nomor 4 tahun 2014 tentang Penyelenggaraan Pendidikan Tinggi dan Pengelolaan Perguruan Tinggi;
 - Peraturan Presiden Republik Indonesia Nomor 82 Tahun 2019 tentang Kementerian Pendidikan dan Kebudayaan;
 - Keputusan Presiden RI Nomor 65 Tahun 1963 tentang Pendirian Universitas Mulawarman;
 - Peraturan Menteri Riset, Teknologi, dan Pendidikan Tinggi Nomor 9 Tahun 2015 tentang Organisasi dan Tata Kerja Universitas Mulawarman, sebagaimana diubah dengan Peraturan Menteri Riset, Teknologi dan Pendidikan Tinggi RI Nomor 26 Tahun 2018 tentang Perubahan Atas Peraturan Menteri Riset, Teknologi, dan Pendidikan Tinggi Nomor 9 Tahun 2015 tentang Organisasi dan Tata Kerja Universitas Mulawarman;
 - Peraturan Menteri Riset, Teknologi dan Pendidikan Tinggi RI Nomor 57 Tahun 2018 tentang Statuta Universitas Mulawarman Tahun 2018;
 - Keputusan Menteri Keuangan RI Nomor 51/KMK.05/2009 tentang Penetapan Unmul Samarinda pada Depdiknas, Sebagai Instansi Pemerintah yang Menerapkan Pengelolaan Keuangan Badan Layanan Umum;

9. Keputusan Menristekdikti. RI Nomor 661/M/KPT.KP/2018 tentang Pemberhentian dan Pengangkatan Rektor Universitas Mulawarman Periode Tahun 2018-2022;
10. Peraturan Rektor Universitas Mulawarman Nomor 13 Tahun 2020 tentang Tata Naskah Dinas di lingkungan Universitas Mulawarman;
11. Peraturan Rektor Universitas Mulawarman Nomor 17 Tahun 2020 tentang Penyelenggaraan Pendidikan dan Pengajaran, Penelitian, dan Pengabdian Kepada Masyarakat Berbasis Kampus Merdeka dan Merdeka Belajar;
12. Keputusan Rektor Universitas Mulawarman Nomor 1963/DT/2015 tentang Peningkatan Status Unit Pelaksana Fakultas Menjadi Fakultas Ilmu Budaya Universitas Mulawarman;
13. Keputusan Rektor Universitas Mulawarman Nomor 1927/KP/2019 tentang Pemberhentian Dan Pengangkatan Dekan Fakultas Ilmu Budaya Universitas Mulawarman Periode 2019-2023.

MEMUTUSKAN :

Menetapkan : KEPUTUSAN REKTOR UNIVERSITAS MULAWARMAN TENTANG TIM PENELITIAN FAKULTAS ILMU BUDAYA UNIVERSITAS MULAWARMAN TAHUN 2021.

KESATU : Tim Penelitian Fakultas Ilmu Budaya Universitas Mulawarman Tahun 2021, dengan susunan sebagaimana terdapat pada lampiran yang tidak dapat dipisahkan dari keputusan ini.

KEDUA : Pembiayaan yang disebabkan dengan diterbitkannya keputusan ini dibebankan PNPB Universitas Mulawarman Tahun 2021, anggaran Fakultas Ilmu Budaya.

KETIGA : Keputusan ini berlaku terhitung sejak bulan Agustus tahun 2021.

KEEMPAT : Apabila dikemudian hari ditemukan kekeliruan dalam Keputusan ini, akan diperbaiki sebagaimana mestinya.

Ditetapkan di Samarinda
pada tanggal 29 September 2021



Prof. Dr. H. Masjaya, M. Si
NIP196212311991031024

LAMPIRAN
KEPUTUSAN REKTOR UNIVERSITAS MULAWARMAN
NOMOR 23-10 /UN17/HK/2021
TANGGAL 29 SEPTEMBER 2021
TENTANG

TIM PENELITIAN FAKULTAS ILMU BUDAYA UNIVERSITAS MULAWARMAN TAHUN 2021

No.	Judul Penelitian	Nama Peneliti	Jumlah
1	Asian Representation in Hollywood : Progress of Proper Portrayal.	Prof.Dr.M. Bahri Arifin, M.Hum Singgih Daru Kuncara, S.S., M.Hum. Eka Pratiwi Sudirman, M.Pd.	Rp 10,200,000.00
2	Mamanda Kutai : Transmisi Dan Preservasi.	Yofi Irvan, S.MG., M.A. Bayu Arsiadhi Putra, S.Sn., M.Sn.	Rp 7,800,000.00
3	Garap Dan Struktur Musikal Gendang Agung Paser.	Aris Setyoko, S.Sn., M.Sn. Zamrud Whidas Pratama, S.Pd., M.Sn.	Rp 7,800,000.00
4	Perubahan Makna Istilah Pada Poster Media Sosial BNPB di Masa Pascapandemi Covid - 19 Kajian Morfosemantik.	Purwanti, M.Hum. Ian Wahyuni, S.S., M.Hum.	Rp 7,800,000.00
5	Discourse Analysis On Taylor Swift's <i>You Need To Calm Down</i> Music Video With Semiotic Approach.	Jonathan Irene Sartika Dewi Max, S.S., M.Hum. Aries Utomo, S.Pd., M.Pd.	Rp 7,800,000.00
6	Kearifan Lokal Dalam Cerita Rakyat "Pesut Mahakam" Kajian Resepsi Sinkronik.	Norma Atika Sari, S.S., M.Hum. Irma Surayya Hanum, M.Pd.	Rp 7,800,000.00
7	Logos And Ethos On The Political Marketing Of Jokowi In The Presidential Election 2019: A Defence Strategy Of Incumbent	Dr.H. Masrur Yahya, M.Hum. Alamsyah, Ph.D	Rp 7,800,000.00
8	Kemanusiaan Dalam Esai "Foto Itu" Karya Goenawan Mohamad Dengan Cerpen " Biarkan Aku Menjadi Orang Palesina" Karya Jehad Rajbi: Kajian Sastra Bandingan.	Dahri D., S.S., M.Hum. Kiftiawati, S.S., M.Hum.	Rp 7,800,000.00
9	Collaborative Learning For Enhancing Students' Motivation And Achievement In Online Grammar Course.	Setya Ariani, M.Pd. Nita Maya Valiantien, M.Pd.	Rp 7,800,000.00

10	Ekspresi Verbal Dosen Universitas Mulawarman Terhadap Kebijakan Merdeka Belajar-Kampus Merdeka	Ahmad Mubarak, S.Pd., M.Hum. Eka Yusransyah, S.Pd., M.Hum.	Rp 7,800,000.00
11	A Discourse Stylistics Analysis On The Regularities In Dan Brown's The Da Vinci Code	Dr.Mardiya Pratiwi Zamruddin Chris Asanti, M.Ed.	Rp 7,800,000.00
12	Intrinsic Elements And Gender Analysis In Joseph Conrad's <i>The Rescue</i> Novel	Nasrullah, S.S., M.A. M.Natsir, S.Pd, M.Pd	Rp 7,800,000.00
13	Deskripsi Upacara Mecaq Undat Dan Ngamen Bai	Satyawati Surya, S.Pd., M.Pd. Dian Anggriyani, S.Pd., M.A.	Rp 7,800,000.00
14	Investigating EFL Learners' Intonation In Reading English Dialogue: A Phonological Review Of L1 Intervention	Ririn Setyowati, M.Hum Famala Eka Sanhadi Rahayu, M.Pd	Rp 7,800,000.00
15	Seka Gong Kebyar Candra Kirana Desa Kerta Buana, Kec. Tenggarong Seberang, Kab. Kutai Kartanegara, Prov. Kalimantan Timur	Agus Kastama Putra, S.Sn., M.Sn. Asril Gunawan, S.Sn., M.Sn.	Rp 7,800,000.00
16	Analogy of Historical Facts Toward Abraham Lincoln in Walt Whitman's Selected Poems	Fatimah M., S.S., M.Hum Indah Sri Lubis, M.Hum	Rp 7,800,000.00
17	Narasi Horor Feminis dalam Novel <i>Mantra Liliith</i> karya Hendri Yulius	Indrawan Dwisetya Suhendi, S.S., M.Hum. Bayu Aji Nugroho, S.S., M.Hum.	Rp 7,800,000.00
Jumlah Keseluruhan			Rp 135,000,000.00

Ditetapkan di Samarinda



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RESEARCH REPORT

COLLABORATIVE LEARNING FOR ENHANCING STUDENTS' MOTIVATION AND ACHIEVEMENT IN ONLINE GRAMMAR COURSE



Written by

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**ENGLISH LITERATURE STUDY PROGRAM
FACULTY OF CULTURAL SCIENCES
MULAWARMAN UNIVERSITY
SAMARINDA 2021**

HALAMAN PENGESAHAN

Judul Penelitian : Collaborative Learning for Enhancing Students' Motivation and Achievement in Online Grammar Course

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Samarinda, 2021

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CHAPTER I

INTRODUCTION

1.1 Research Background

The Covid-19 pandemic has created a great challenge for educational system worldwide. In some parts of the world, this situation has led the transition from face-to-face classroom activities to online learning activities. Pointed out by Stern (n.d.), online learning as one type of ‘distance learning’ is characterized by “internet-based courses offered synchronously and/or asynchronously” (p.1). Online learning enables teachers and students to the flexibility of teaching and learning anywhere and anytime, but it may also cause much discomfort for some reasons. Teachers and students have to quickly adapt to online learning environments and they need access to the internet to support teaching and learning process. Zhang et al. (2020) quoted in Carillo and Flores (2020) add that there are a number of difficulties dealing with online learning such as “poor online teaching infrastructure, inexperience of teachers, the information gap (i.e., limited information and resources to all students) and the complex environment at home”(p. 466). These problems frequently appear and become more serious so that monitoring the quality and effectiveness of online learning activities is required to improve teacher and learner performance.

Even though online education is not a novel concept and almost becomes a part of everyday life particularly during this current pandemic situation, a better preparation for having a successful online learning class is necessary. The teaching and learning process is carried out online by using a variety of online

learning tools such as Google Classroom, Google Form, Google Drive, Zoom, WhatsApp, and so forth. These are helpful for sharing online materials, conducting synchronous and asynchronous learning, and enabling students to submit paperless tasks. Students are also encouraged to work collaboratively since based on social constructivism theory, collaborative process is fundamental to learning experience (Vygotsky, 1978). Applying collaborative activities in teaching and learning helps students to develop mutual cooperation in overcoming problems during their study.

Collaborative learning covers pairs or small groups to interact during learning activities and works best for college students (Barkley *et al.*, 2005). By learning to work with others, all students in groups must engage actively to achieve shared learning goals. According to Bruffee (1993, p.3), knowledge is “something people construct by talking together and reaching agreement” (as cited in Barkley *et al.*, 2005, p. 6). Collaborative learning aims to help students gain experience to work within a learning community where teachers do not act in an authoritative manner, but rather act as students’ peers and encourage students to learn autonomously. In the context of online course, learning becomes collaborative since students make use of online learning tools to communicate and exchange information with their peers and lecturers.

The flipped-classroom strategy can be very useful in online teaching. Al-Harbi and Alshumaimeri (2016) add that “the flipped classroom strategy is a pedagogical model in which lesson content is learned at home by means of technology, allowing teachers to devote class time to practicing lesson content

with exercises, activities, discussions, or projects” (p. 60). The idea of this strategy is that students are able to accomplish simple tasks at home, and then collaborate actively with their peers when they are working in an online context. The flipped-classroom strategy emphasizes on student-centered learning rather than teacher-centered classroom, and therefore teachers or lecturers who apply the flipped classroom strategy in teaching are no longer lecturers (Doman and Webb, 2017 cited in Khalil, 2018). They facilitate the learning process by designing activities that are suitable for both home and online learning and provide time available for discussion with students outside class hours.

A type of collaborative learning that is relevant to the online class is discussion. Barkley *et al.* (2005) state that through discussion, students are able to generate and share their ideas, and more attentive to listen to other opinions. Since students can learn outside the classroom and access learning materials anywhere and anytime, they can have discussion with their groups without being observed directly by lecturers, for instance, when they need to work on specific tasks. They will have freedom to communicate their thoughts and probably feel less anxious compared to speak in front of whole class. U.S.Dept.of Education (2000) also reported that discussion is the best choice of instructional method used by almost all college teachers in their classes (cited in Barkley *et al.*,2005).

A number of existing literature summarize the evidence that collaborative learning promotes and improves teaching and learning in online classes, for example, the investigation of students’ perception towards collaborative learning (Faja: 2013, Hernández-Sellés *et al.* : 2015, and Stoytcheva: 2018). The findings

of these studies revealed that collaborative activities showed positive impacts on online learning and improved academic performances. The integration of online learning tools with collaborative activities or tasks has been also researched in grammar class. Kovacic' study (2012) which focused on the experience of using Web 2.0 tools through grammar-based activities (i.e. online pedagogical activities performed by individuals or teams of students) concluded that the integration of Web 2.0 is an alternative to conventional grammar teaching where the application of technology in learning could enhance learning experience. Another study conducted by Khalil (2018) also reported that Google Applications (e.g. Google Docs and Google Form) supported a collaborative learning environment in their grammar course and the majority of students could check teacher's written feedback and accessed course material easily. In addition to working with peers which is academically beneficial to improve learning performance, motivation to work collaboratively gains a lot of attention. One study reported that collaborative learning was effective for increasing motivation among the third year high school students in learning English (Saefurrohman, 2004).

Traditional grammar teaching is generally conducted in classroom where teachers provide explanation about certain grammar rules and students test their understanding by working on the exercises on the workbook. This is also in line with Khalil (2018) who mentioned that grammar rules are directly taught based on textbooks, and then students are asked to complete a number of exercises from their workbooks to show their comprehension towards how certain rules are applied. Living in digital era makes individuals have their own responsibility to

upgrade the information and technology as well as adapt the application of modern technology in teaching and learning. Grammar class is no exception. Collaborative learning through the use of online learning tools have been part of online grammar class for quite a long time, however, its effectiveness still needs to be more explored. Through this study, the researchers highlighted whether or not the implementation of collaborative learning in online grammar class enhances students' motivation and achievement.

In this present research, the second semester students at English Literature Study Program who participated in online grammar course were selected to be the research participants. During the class, it was observed that they were quite familiar to operate online learning tools and they could help their peers working on certain tasks. These become the assumptions that collaborative activity works well in particular online environment. To evaluate the results of collaborative activities among the students, collaborative learning questionnaire was used. Meanwhile, Motivated Strategies for Learning Questionnaire (MSLQ) was administered to assess college's students motivation.

1.2 Research Questions

Based on the aforementioned background, the research questions are formulated into:

1. How is the general description of the application of online learning tools in grammar class?

2. How is the impact of collaborative learning on students' motivation and achievement in online grammar course?

1.3 Purposes of the Research

The present research on collaborative learning aims to reveal:

1. the general description of the application of online learning tools in grammar class
2. the impact of collaborative learning on students' motivation and achievement in online grammar course

1.4 Significance of the Research

There is a large body of literature discussing the positive impacts of collaborative learning particularly on grammar class. It is also important to observe its potential to increase motivation and achievement among university students. Therefore, by conducting this research, it is expected that:

1. theoretically, this research can broaden literature regarding the practice of collaborative learning activities which also integrate the application of technology.
2. practically, by engaging in collaborative activities, students are able to learn from each other in overcoming difficulties during learning. Teachers or instructors who play a very essential role in the teaching and learning process can facilitate their students by providing appropriate material resources, designing learning activities and serving as the member of learning community.

1.5 Scope and Limitation of the Research

This research is to focus on revealing whether or not collaborative learning has an impact on motivation and achievement among the second semester students studying at English Literature Study Program. It also addresses the integration of technology i.e online learning tools to support collaborative activities in online grammar class environment. To be more focused on some points presented in this research, it is important to provide the limitations which cover the criteria of the participants and the instruments.

1. A number of research participants are limited to second semester students taking online grammar course.
2. Out of many instruments used to measure the effectiveness of collaborative learning, the researchers use a questionnaire developed by Hernández-Sellés *et al.* (2015).
3. Motivated Strategies for Learning Questionnaire (MSLQ) developed by Pintrich et al (1991) is employed to assess college's students motivation and learning strategies.
4. Pretest and posttest scores are used to indicate student's achievement.

1.6 Definition of Key Terms

To avoid misunderstanding and misconception throughout this research, some defined terms are necessary to be included to give precise meaning. The terms as follows:

1. Online Collaborative learning

Collaborative learning covers pairs or small groups to interact during learning activities and works best for college students (Barkley *et al.*, 2005). It is a situation that allows students to work in pairs or groups. They learn to search for mutual understanding, find solution to certain learning problems, and explore and apply the course material. Teachers or instructors are not the center of learning, but they become part of learning community. In the context of online education, to apply collaborative learning means integrating technology in the teaching and learning process while encouraging students to engage in each collaborative activity. Several online learning tools such as Google Classroom, Google Form, Google Drive, Zoom, WhatsApp, and so forth are employed to support online teaching and learning activities.

2. Motivation

Motivation is one of the factors determining the success of second language acquisition. As cited in Xu (2008 p.10), it is defined as “the combination of effort plus desire to achieve the goal of learning the language plus favorable attitudes toward learning the language” (Gardner, 1985).

3. Achievement

Achievement in this study is characterized by students’ pretest and posttest scores in online grammar course.

CHAPTER II

LITERATURE REVIEW

2.1 Collaborative Learning and Cooperative Learning

Collaborative and cooperative learning are two learning techniques involving students working in pairs or groups. As cited in Sawyer and Obeid (2017), it is believed that group work will provide better result than individual learning in terms of knowledge development, thinking skills, social skills and course satisfaction (Barkley, Major, and Cross, 2014; Johnson & Johnson, 1994; Stroebel & Van Barneveld, 2009). Both collaborative and cooperative learning lie at the root of Vygotsky's social constructivism theory (1978). Furthermore, Vygotsky emphasizes that it is impossible to separate learning from its social context and divides two developmental learning levels: the level of actual development and the level of potential development. The level of actual development covers the idea that a successful learner is capable of solving problems independently, meanwhile, the level of potential development (the "zone of proximal development") focuses on a key success of learning when learners are capable of working collaboratively with teachers and peers. Although collaborative and cooperative learning have much in common, there are distinct features between these two.

The term 'collaborate' is derived from the Latin verb *collaborare* which means to work in conjunction with others ("Collaborate", 2017 in Sawyer and

Obeid, 2017). Collaborative learning values teamwork and checks individual learning progress as the key success of group learning. In line with this, collaborative learning is primarily based on the premise that learning is socially rather than individually constructed (Bonk & Cunningham, 1998). Macdonald (2003) categorizes collaborative activities as either process oriented or product oriented. Process oriented comprises activities such as discussion and sharing ideas in relation to course content and may not create a product. By contrast, product oriented leads to the creation of learning products such as project, essay, and so forth. The implementation of collaborative learning to increase learning quality also highlights that “ collaborative learning encapsulated four aspects of learning; namely, a situation, interactions, learning mechanisms, and measurements of the effects of collaboration” (Dillenbourg, 1999, p. 6). In collaborative learning process, according to Bruffee (1993), teacher’s role is “less the traditional expert in the classroom and more the peer of students (cited in Barkley *et al.*,2005, p. 7).

Similar to “collaborate” terms, “cooperate” is derived from the Latin verb *cooperari* meaning to work together or operate in conjunction with others (“Cooperate,” 2017; Davidson & Major, 2014 in Sawyer and Obeid, 2017). In practice, students involved in cooperative learning would split the main task into sub-tasks, work independently according to their given task and finally complete the final task by combining their work (Chatterjee, 2015). Panitz (1999) points out that cooperation allows people to interact within groups to accomplish specific task objective. Added by Smith (1996,p.71), cooperative learning is “the

instructional use of small groups so that students work together to maximize their own and each other's learning (cited in Barkley *et al.*,2005). In cooperative learning, teacher's roles are "to design and assign group learning tasks, manage time and resources, check to see that students are on task and that the group process is working well (Cranton, 1996 and Smith, 1996 cited in Barkley *et al.*,2005).

Some authors point out that the terms "collaborative learning" and "cooperative learning" are often used interchangeably to mean students work in a team to work on specific tasks. Nevertheless, the sharp distinction between those two is clearly defined. Collaborative learning's goal is to encourage students to be more autonomous, whereas students in cooperative learning develop mutual and social interaction with their peers to achieve learning goals by finding ways to solving problems. Bruffee also adds that "while cooperative education may be appropriate for children, collaborative learning is more appropriate for college students (cited in Barkley *et al.*,2005, p 7).

2.2 Online Collaborative Learning

Online collaborative learning is found to be helpful to enhance students' participation in teaching and learning process as well as increase students' engagement in material content. Bellanger (2012) points out that online collaborative learning is "the use of asynchronous computer communication networks in promoting social setting". Added by Hoppe (2017), online environment and collaborative learning activities are considered effective within

groups. Collaborative learning activities in online classroom can be varied and may be more challenging than in-class activities. In their study on the effect of collaboration mode on team interactions, Andres and Shipps (2010) reported that technology-mediated collaboration caused great problems such as communication breakdowns, misunderstandings and difficulties of showing learning progress. Students also experienced that online group activity is more difficult than face-to-face group activity (Koh and Hill, 2009).

Discussion among the whole class or smaller groups via online gives several advantages such as providing time for students to brainstorm their ideas, allowing students to check course materials and other relevant sources, discussing certain topics more deeply compared to in-class discussion and exchanging perspectives according to the same issues (Pena-Shaff, Altman, & Stephenson, 2005). Discussion is also a type of collaborative activity that is mostly chosen by almost all college teachers in their classes (U.S.Dept.of Education, 2000 cited in Barkley *et al.*,2005). In addition, applying diverse online learning tools in collaborative activities help facilitate students' participation and interaction during online class.

Rist and Hewer (1996) defines learning technology as the application of technology consisting of Web-based learning, the use of networks, communication systems and multimedia materials to support teaching and learning process. Scoot and Palinscar (2009) add the use of online learning technology instructional methods “are based on different constructive principles that learners use to construct their own knowing and understanding of new

concepts (cited in Alsubaie & Ashuraidah, 2017, p.12). Students and teachers are able to work collaboratively, access and use resource materials, and develop individual or group learning setting in online course environment.

In the context of online grammar course, collaborative setting is created among lecturer and students by integrating online learning tools in learning context. *Google Form*, for example, is a web application offered by Google to create survey, questionnaire, online quiz, and so forth. It is effective tool that automatically grades paperless grammar task and quiz. In online grammar class, *Google Classroom* is used to manage and organize class as well as share teaching materials. It allows students to also download the learning materials and check lecturers' written feedback. During synchronous learning, *Zoom Meeting* is a quite popular video conferencing platform for teaching and learning which takes place at the same time or as scheduled. *WhatsApp Group* is a feature of *WhatsApp* application that is used to arrange and plan discussion instantly where teachers/instructors and students are invited in the same group.

2.3 Collaborative Learning Techniques

There are five broad categories of collaborative learning techniques (Barkley *et al.*,2005): discussion, reciprocal peer teaching, problem solving, graphic information organizers and writing. The following parts summarize each category in detailed.

1. Discussion

Discussion is considered a popular collaborative learning technique which allows interaction and information exchange orally. It encourages

students with multiple perspectives, awareness and complexity to communicate their ideas clearly and become attentive and respectful listeners. Good discussion requires students to actively share what they think, feel and believe and speak up their mind. However, the disadvantage of having discussion is many students are reluctant to share comments and opinions due to embarrassment. Discussion also has six types namely *Think-Pair-Share*, *Round Robin*, *Buzz Group*, *Talking Chips*, *Three-Step Interview*, and *Critical Debates*.

2. Reciprocal Peer Teaching

This technique requires students “to both give and receive as they help each other gain knowledge or understanding” (p.133). Students act both as teacher and learner and this techniques surely emphasizes mutual exchange of information. They attempt to understand the subject content well in order to coach other peers. Rather than competition, reciprocal peer teaching provides opportunity for students to cooperate. Reciprocal peer teaching falls into six types: *Note-Taking Pairs*, *Learning Cell*, *Fishbowl*, *Role Play*, *Jigsaw*, and *Test-Taking Teams*.

3. Problem Solving

The key point of introducing this technique is to present students with problems to solve. McKeachie (2002: 197) states that “Problem-based education is based on the assumptions that human beings evolved as individuals who are motivated to solve problems, and that problem solvers will seek and learn whatever knowledge is needed for successful problem

solving”. Although presenting problems is challenging, students will be motivated to find solutions. Problem solving is divided into six strategies: *Think-Aloud Pair Problem Solving, Send-A-Problem, Case Study, Structured Problem Solving, Analytic Teams, and Group Investigation.*

4. Graphic Information Organizers

Graphic information organizers are instructional tools with a variety of purposes. They are useful for organizing ideas used in discussion, writing or research. Students may use these tools to summarize text and remember important ideas. Types of graphic information organizers are *Affinity Grouping, Group Grid, Team Matrix, Sequence Chain, and Word Webs.*

5. Writing

Writing is essential for monitoring students’ progress in learning. Writing in group work facilitates students “frameworks for pairs or small groups to help each other and critique final and graded written products”. Types of collaborative writing techniques are *Dialogue Journals, Round Table, Dyadic Essays, Peer Editing, Collaborative Writing, Team Anthologies, and Paper Seminar.*

CHAPTER III

RESEARCH METHODOLOGY

3.1 Research Design

This present research aims to provide general description about the use of learning tools in online grammar course. The other purpose is to know whether or not collaborative learning impacts on students' motivation and grammar achievement in the context of online grammar course. This quantitative research uses experimental pretest-posttest design.

3.2 Population and Sample

The population and sample of this research will be the second semester students taking grammar course at English Literature Study Program, Faculty of Cultural Sciences, Mulawarman University. There are 44 students consisting of 18 males (41 %) and 26 females (59 %).

3.3 Research Instruments

This research begins with the question about the general description of online learning tools used by students during online grammar class. To elicit students' responses, questionnaire regarding online learning tools is shared using google form link. In relation to question regarding the impact of collaborative learning on students' motivation and achievement in online grammar course, three instruments are used: collaborative learning questionnaire developed by Hernández-Sellés *et al.* (2015), Motivated Strategies for Learning Questionnaire

(MSLQ) developed by Pintrich et al (1991) and grammar pretest and posttest scores.

Collaborative learning questionnaire developed by Hernández-Sellés *et al.* (2015) is a one-to-five point Likert scale incorporated into 139 items arranged in 6 sections. For the purpose of this study, the researchers will only use items in section 4 that correspond with “Assessment and learning results related to collaborative learning”. This section consists of eight items.

MSLQ is a seven-point-Likert scale questionnaire developed by Pintrich et al (1991). It is used to assess motivational orientations and different learning strategies for college students that is incorporated into 81 items. The researchers only used the motivation section consisting of 31 items. This section is divided into six following scales.

1. Intrinsic goal orientation: Item 1, 16, 22, 24
2. Extrinsic goal orientation: Item 7, 11, 13, 30
3. Task value: Item 4, 10, 17, 23, 26, 27
4. Control of learning beliefs: Item 2, 9, 18, 25
5. Expectancy components (i.e.self-efficacy for learning and performance): Item 5, 6, 12, 15, 20, 21, 29, 31
6. Affective component (i.e test anxiety): Item 3, 8, 14, 19, 28

The last instrument is students’ achievement. Grammar pretest and posttest scores will be used to indicate whether collaborative learning has

an impact on achievement. The grammar test is comprised of 50 items and graded numerically with the highest score 100.

3.4 Data Collection Procedures

The data collection is divided into several steps.

1. Students complete grammar tests (pretest and posttest) that each consists of 50 items. Grammar tests are created using *Google Form*.
2. The questionnaires are created in the *Google Form* platform. Each item uses both English and Indonesian version.
3. The *Google Form* link is distributed to the participants via WhatsApp group and students will voluntarily fill out the questionnaires.
4. Questions appear during questionnaire administration will be discussed online via WhatsApp.
5. The researchers will check the number of students completing questionnaire administration.

3.5 Data Analysis

The analytical procedure will be computed using the Statistical Package for Social Sciences (SPSS), version 17.0. The preliminary analysis is to calculate the descriptive statistics (i.e mean, standard deviation, maximum, minimum, and frequency distribution of the variables. To reveal the findings whether collaborative learning (independent variable) impacts students' motivation and achievement (dependent variable), multiple linear regression is carried out.

CHAPTER IV

RENCANA ANGGARAN BIAYA PENELITIAN

4.1 Justifikasi Anggaran Biaya Penelitian

Honorarium					
No	Item Honor	Volume	Satuan	Honor	Total (Rp)
1	Honor Pengolah Data	2	Orang	1.540.000	3.080.000
2	Petugas Survey	1	Orang	8.000/responden	352.000
Total honorarium					3.432.000
Bahan Habis Pakai					
No	Item Honor	Volume	Satuan	Honor	Total (Rp)
1	Kertas HVS 70 gr ukuran A4	4	Rim	45.000	160.000
2	Isi Ulang Tinta warna	2	Buah	109.000	218.000
Total bahan habis pakai					378.000
Foto Copy dan Jilid					
No	Item Honor	Volume	Satuan	Honor	Total (Rp)
1	Fotocopy dan Jilid laporan akhir	5	eksemplar	40.000	200.000
2	Fotocopy dan Jilid Proposal	1	eksemplar	40.000	40.000

Total fotocopy dan jilid					240.000
Lain-lain					
No	Item Honor	Volume	Satuan	Honor	Total (Rp)
1	Publikasi	1	Artikel	2.000.000	2.000.000
2	Konsumsi Rapat Koordinasi Persiapan Penelitian 1	5	Paket	50.000	250.000
3	Konsumsi Rapat Koordinasi Persiapan Penelitian 2	50	Paket	20.000	1.000.000
4	Konsumsi Rapat Diskusi Analisis Data Progres 1	5	Paket	50.000	250.000
5	Konsumsi Diskusi Final Penelitian (Penutupan)	5	Paket	50.000	250.000
Total biaya lain-lain					3.750.000

4.2 Rekapitulasi Usulan Biaya Penelitian

No	Jenis Pengeluaran	Biaya yang Diusulkan (Rp)
1	Honorarium	3.432.000
2	Biaya Bahan Habis Pakai	378.000
4	Biaya Fotocopy dan Jilid	240.000
5	Biaya lain-lain	3.750.000
Total Usulan Biaya Penelitian		7.800.000

4.3 Jadwal Pelaksanaan Penelitian

Kegiatan	April	Mei	Juni	Juli	Agustus
Proposal Penelitian	■	■	■		
Pengumpulan Data		■	■	■	
Pengolahan Data			■	■	■
Penyusunan laporan				■	■
Seminar					■

4.4 Target Luaran Penelitian

No	Jenis Luaran	Indikator Capaian
1	Publikasi Ilmiah di Jurnal Nasional Ber ISSN	
2	Pemakalah dalam temu ilmiah	Internasional
		Nasional
3	Bahan Ajar	Draft
4	Buku Ajar	Draft

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Collaborative Learning for Enhancing Student Academic Achievement in Online Grammar Class: an Experimental Study

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Abstract

Collaborative learning is an activity to work in small groups or teams that allows students to develop mutual cooperation in learning. This study aims to highlight the effectiveness of collaborative learning in improving student academic achievement. It was carried out with a quantitative method, and the pretest-posttest experimental design was applied. There were sixty students who participated in this study. To assess students' achievement, online grammar pretest and posttest were distributed. In addition, a collaborative learning questionnaire was administered to elicit students' responses to collaborative learning. Based on the paired-samples t-test result, it was found that the pretest and posttest mean scores were significantly different ($t_{(59)} = -5.977, p < .05$). This indicated that there was a higher mean score for the posttest after the implementation of collaborative activities. Most students responded that collaborative learning activities improved academic performance, and teamwork helped them to receive input from their peers as well as provide better results in completing the tasks than working individually. It is recommended that various collaborative activities should be designed to motivate university students in learning grammar.

Keywords: *Collaborative Learning, Online Learning, Achievement, Grammar Pretest, and Posttest*



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INTRODUCTION

The Covid-19 pandemic has created a great challenge for the educational system worldwide. In some parts of the world, this situation has led to the transition from face-to-face classroom activities to online learning activities. Even though online education is not a novel concept and has almost become a part of everyday life, particularly during this current pandemic situation, better preparation for having a successful online learning class is necessary. The teaching and learning process is virtually carried out by using a variety of online learning tools such as Google Classroom, Google Form, Google Drive, Zoom, WhatsApp, and so forth. These are helpful for sharing online materials, conducting synchronous and asynchronous learning, and enabling students to submit paperless tasks. In addition, teaching and learning are not fundamentally based on the idea of transferring knowledge. Teachers or instructors are highly recommended to motivate students to work collaboratively to help students gain experience to work within a learning community where teachers do not act in an authoritative manner but rather act as students' peers and encourage students to learn autonomously.

Collaborative learning covers pairs or small groups to interact during learning activities and works best for college students (Barkley *et al.*, 2005). It is also frequently used as an instructional approach for online courses (Lee, Bonk, Magjuka, Su, & Liu, 2006). Students are encouraged to work collaboratively since, based on social constructivism theory, the collaborative process is fundamental to a learning experience (Vygotsky, 1978). Applying collaborative activities in teaching and learning helps students to develop mutual cooperation in overcoming problems during their studies. In the context of an online course, learning becomes collaborative since students make use of online learning tools to communicate and exchange information with their peers and teachers or instructors.

A number of existing literature summarize the evidence that collaborative learning promotes and improves teaching and learning in online classes, for example, the investigation of students' perception of collaborative learning (Faja, 2013; Hernández-Sellés, Muñoz-Carril, & González-Sanmamed, 2015; and Stoytcheva, 2018). The findings of these studies revealed that collaborative activities showed positive

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impacts on online learning and improved academic performances. The integration of online learning tools with collaborative activities or tasks has also been researched in grammar class. Kovacic's study (2012), which focused on the experience of using Web 2.0 tools through grammar-based e-tivities (i.e., online pedagogical activities performed by individuals or teams of students), concluded that the integration of Web 2.0 is an alternative to conventional grammar teaching where the application of technology in learning could enhance the learning experience. Another study conducted by Khalil (2018) also reported that Google Applications (e.g., Google Docs and Google Form) supported a collaborative learning environment in grammar courses, and the majority of students could check teachers' written feedback and access course material easily.

Collaborative learning is considered relevant to be applied to support students' learning in online grammar classes. Traditional grammar teaching emphasizes more on the teacher's explanation of grammar rules and students' activity in completing a number of grammar exercises, and this mostly occurs in a classroom situation. Working collaboratively by making use of online learning tools is purposefully addressed to contribute to the teaching and learning of grammar in addition to the use of textbooks and workbooks in learning activities. Therefore, this study aims to investigate the effectiveness of collaborative learning in improving academic achievement in online grammar classes.

LITERATURE REVIEW**Collaborative Learning and Cooperative Learning**

Some authors point out that the terms "collaborative learning" and "cooperative learning" are often used interchangeably to mean students work in a team to work on specific tasks. Bruffee states that "while cooperative education may be appropriate for children, collaborative learning is more appropriate for college students (cited in Barkley *et al.*,2005, p 7). Both collaborative and cooperative learning lie at the root of Vygotsky's social constructivism theory (1978) which emphasizes that it is impossible to separate learning from its social context. Furthermore, Vygotsky (1978) divides two developmental learning levels: the level of actual development and the level of potential development. The level of actual development covers the idea that a successful learner is capable of solving problems independently; meanwhile, the level of potential development (the "zone of proximal development") focuses on a key success of learning when learners are capable of working collaboratively with teachers and peers. Although collaborative and cooperative learning has much in common, there are distinct features between these two.

Collaborative learning values teamwork and checks individual learning progress as the key success of group learning. Macdonald (2003) categorizes collaborative activities as either process-oriented or product-oriented. Process-oriented comprises activities such as discussion and sharing ideas in relation to course content and may not create a product. By contrast, product-oriented leads to the creation of learning products such as projects, essays, and so forth. The implementation of collaborative learning to increase learning quality also highlights that "collaborative learning encapsulated four aspects of learning; namely, a situation, interactions, learning mechanisms, and measurements of the effects of collaboration" (Dillenbourg, 1999, p. 6). In the collaborative learning process, according to Bruffee (1993), the teacher's role is "less the traditional expert in the classroom and more the peer of students (cited in Barkley *et al.*,2005, p. 7).

Students involved in cooperative learning would split the main task into sub-tasks, work independently according to their given task and finally complete the final task by combining their work (Chatterjee, 2015). Panitz (1999) points out that cooperation allows people to interact within groups to accomplish specific task objectives. In cooperative learning, the teacher's roles are "to design and assign group

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learning tasks, manage time and resources, check to see that students are on task and that the group process is working well (Cranton, 1996; Smith, 1996, cited in Barkley *et al.*, 2005).

Online Collaborative Learning

Online collaborative learning, according to Bélanger (2012), refers to "the use of asynchronous computer communication networks in promoting social setting." Added by Hoppe (2017), online environments and collaborative learning activities are considered effective within groups. Collaborative learning activities in an online classroom can be varied and may be more challenging than in-class activities. In their study on the effect of collaboration mode on team interactions, Andres and Shipps (2010) reported that technology-mediated collaboration caused great problems such as communication breakdowns, misunderstandings, and difficulties in showing learning progress. Students also experienced that online group activity is more difficult than face-to-face group activity (Koh and Hill, 2009). Scoot and Palinscar (2009) add that the use of online learning technology instructional methods is "based on different constructive principles that learners use to construct their own knowing and understanding of new concepts (cited in Alsubaie & Ashuraidah, 2017, p.12). Students and teachers are able to work collaboratively, access and use resource materials, and develop individual or group learning settings in an online course environment. Applying diverse online learning tools in collaborative activities helps facilitate students' participation and interaction during an online class.

Discussion is a type of collaborative activity that is mostly chosen by almost all college teachers in their classes (U.S.Dept.of Education, 2000 cited in Barkley *et al.*, 2005). Through discussion, students are able to generate and share their ideas and are more attentive to listening to other opinions (Barkley *et al.*, 2005). Discussion among the whole class or smaller groups online gives several advantages, such as providing time for students to brainstorm their ideas, allowing students to check course materials and other relevant sources, discussing certain topics more deeply compared to an in-class discussion, and exchanging perspectives according to the same issues (Pena-Shaff, Altman, & Stephenson, 2005).

Collaborative Learning and Achievement

Achievement is defined as "the academic performance by means of standardized and/or validated measures" (Schmid *et al.*, 2014). In addition, Ollendick & Schroeder (2003) define academic achievement as "knowledge and skills that an individual learns through direct instruction" (p.1). Springer, Stanne, and Donovan (1999) conducted a meta-analysis study on the effects of small-group learning on student achievement, persistence, and attitudes and found that "students generally demonstrated greater academic achievement, expressed more favorable attitudes toward learning, and persisted through SMET courses or programs to a greater extent than their more traditionally taught counterparts" (as cited in *et al.*, 2005, p. 19). The other various researches on collaborative learning have also found that collaboration among students positively impacted their achievement (Fjermestad, 2004; Schmid *et al.*, 2014; Kumar, 2017).

RESEARCH METHODOLOGY

The study applied an experimental quantitative design. According to Muijs (2004), the experimental method is defined as "a test under controlled conditions that is made to demonstrate a known truth or examine the validity of a hypothesis" (p.13). Sixty students of the English Literature Study Program who took online grammar courses participated in this study. They were 19 male students (31.7%) and 41 female students (68.3%). A grammar pretest and posttest exercise were given to the respondents. It consisted of fifty multiple-choice questions delivered through Google Form. Each question was worth 2 points.

In the first meeting, after providing the course introduction, the students were asked to complete a grammar pretest. It helped measure their initial understanding of grammar course materials. In the following meetings, they were instructed to do more collaborative activities in their grammar class, such as small group discussions and pairwork. The experiment was carried out for approximately six weeks to adjust students' learning process. At the end of the meeting, a grammar posttest through Google Form was delivered.

Besides pretest and posttest, the 5-point Likert collaborative learning questionnaire was also administered. It ranges from 1 = very low, 2 = low, 3 = medium, 4 = high to 5 = very high. This questionnaire was developed by Hernández-Sellés *et al.* (2015), consisting of eight items that aim to show the results of collaborative activities in the class.

FINDINGS

Descriptive Statistics

Descriptive statistics was employed as a preliminary analysis. The participant responses to each grammar pretest and posttest are presented in Table 1.

Table 1. Descriptive statistics of grammar pretest and posttest

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Pretest	60	28.00	96.00	69.4167	21.30512
Posttest	60	38.00	100.00	78.6167	17.16233
Valid N (listwise)	60				

The analysis results of descriptive statistics indicated that sixty students completed the pretest with a minimum score of 28.00 and the maximum score of 96.00 with a mean score of 69.4. The results of the posttest were higher than those of the pretest, with a minimum score of 38.00, a maximum score of 100.00, and a mean score of 78.6.

Analysis of Paired-Samples t-Test

To determine whether or not there are significant differences between the pretest and posttest scores, a paired-samples t-test at the 5% level of significance is used. There are three following tables presented: paired samples statistics, paired-samples correlations, and paired samples test.

Table 2. Paired Samples Statistics

Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pretest	69.4167	60	21.30512	2.75048
	Posttest	78.6167	60	17.16233	2.21565

Paired samples statistics table showed that the posttests mean score was higher than that of the pretest (78.61 > 69.41). The standard deviation of both pretest and posttest were 21.30 and 17.16 consecutively. In the case of standard deviation, there was high variability for pretest than posttest. The standard error of the means measured the confidence level of estimating the means. The standard error means for both

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pretest and posttest were 2.75 and 2.21 consecutively. The smaller the standard error means, the higher the confidence level is.

Table 3. Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Pretest & Posttest	60	.829	.000

The correlation between two variables is a single number that describes how two dependent variables are correlated. The paired samples correlation output provided the information that grammar pretest and posttest scores were significantly positively correlated ($r = .829$, $sig = .000$).

Table 4. Paired Samples Test

		Paired Differences				t	df	Sig. (2-tailed)	
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower				Upper
Pair 1	Pretest - Posttest	-9.20000	11.92249	1.53919	-12.27991	-6.12009	-5.977	59	.000

The paired-samples test showed the actual test result. The observed samples' mean difference was -9.20. The standard error of the difference between pretest and posttest mean scores was 1.53. The confidence interval of the difference was 95%. The degree of freedom (df) was $n-1 = 60-1=59$, $t_{table} = 2.000$. Based on the following hypotheses:

- 1) Null hypothesis (H_0): $\mu_1 = \mu_2$, which indicates that the grammar pretest and posttest means are equal
- 2) Alternative hypothesis (H_1): $\mu_1 \neq \mu_2$, which indicates that the grammar pretest and posttest means are not equal

The analysis result of the paired-samples test was $t_{(59)} = -5.977$, $sig .000$ (where $sig .000 < 0.05$), and therefore H_0 was rejected. There was a significant mean difference between grammar pretest and posttest ($t_{(59)} = -5.977$, $p < .05$). This indicated that after the implementation of collaborative learning, the grammar pretest and posttest means were not equal.

Analysis of Collaborative Learning Questionnaire Items

A collaborative learning questionnaire developed by Hernández-Sellés *et al.* (2015) covers assessment and learning results related to collaborative learning consisting of eight items. It ranges from 1 = very low, 2 = low, 3 = medium, 4 = high to 5 = very high.

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Table 5. Frequency of collaborative work to facilitate grammar learning

Questionnaire Items	Very low		Low		Medium		High		Very high	
	f	%	f	%	f	%	f	%	f	%
1) Collaborative learning has helped me achieve a good academic performance.			1	1.7	21	35.0	25	41.7	13	21.7
2) Teamwork has allowed me to build-up my knowledge through other peers' input			2	3.3	18	30.0	23	28.3	17	28.3
3) I have learned more about interacting with my teammates than working alone.	3	5.0	6	10.0	17	28.3	24	40.0	10	16.7
4) Interacting with my teammates, I have improved the ratings, I would have obtained through individual work in the task	1	1.7	4	6.7	17	28.3	27	45.0	11	18.3
5) The time spent organizing group work is offset by the learning developed.	1	1.7	3	5.0	17	28.3	28	46.7	11	18.3
6) The final result of the team (the task presented) improves the task I could have done individually.			3	5.0	23	38.3	28	46.7	6	10.0
7) The team's success (the results) reflected the success of the team members.			1	1.7	3	5.0	28	46.7	28	46.7
8) Contact with the group helped me continue my studies to the point of completion (it has been a support keeping me connected to the subject and the study)	1	1.7			14	23.3	29	48.3	16	26.7

As can be seen in Table 5, students' responses to the implementation of collaborative learning mostly ranged from medium to very high. Twenty-five students reported that collaborative learning could improve their academic performance (41.7%). Some students also believed that working in groups helped them increase their learning. The items such as items 2,3, and 6 showed students' high responses to the importance of teamwork in providing input (28.3%), learning to interact with peers than working individually (40.0%), and improving better results in completing the task (46.7%). Only a few students had very low responses to the implementation of collaborative learning, shown by items 3, 4, 5, and 8, which mostly correlated with interaction with peers.

Table 6. Mean scores and standard deviations of collaborative learning

Statistics

	Student	Item_1	Item_2	Item_3	Item_4	Item_5	Item_6	Item_7	Item_8
N Valid	60	60	60	60	60	60	60	60	60
Missing	0	0	0	0	0	0	0	0	0
Mean		3.8333	3.9167	3.5333	3.7167	3.7500	3.6167	4.3833	3.9833
Std. Deviation		.78474	.84956	1.04908	.90370	.87576	.73857	.66617	.81286
Minimum		2.00	2.00	1.00	1.00	1.00	2.00	2.00	1.00
Maximum		5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00

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Table 6 revealed the mean scores and standard deviations of the collaborative learning questionnaire. The mean score ranged from 3.53 to 4.38. In general, the mean scores were high, particularly in item 7 (The team's success (the results) reflected the success of the team members) ($M= 4.38, SD= .67$). This item clearly indicated that completing the tasks or projects in the group reflected the success of individuals in that group. Meanwhile, item 3 (I have learned more about interacting with my teammates than working alone represented that interaction is the key to success in learning ($M= 3.53, SD=1.04$).

DISCUSSION

Grammar is one of the difficult subjects to teach and learn at the university level, and collaborative learning is considerably helpful to be implemented in classroom activities. In collaborative learning, students participate in small groups activities, and university students seem to value more on collaborative activities (Barkley *et al.*, 2005). Out of many collaborative types, a discussion is mostly chosen by almost all college teachers in their classes (U.S.Dept.of Education, 2000 cited in Barkley *et al.*,2005). The discussion or other collaborative activities do not only occur during in-class activities but can also be designed as outside class activities.

This study applied a one-group pretest-posttest experimental design to know the effectiveness of collaborative learning in improving student academic achievement in online grammar classes. To measure the achievement, grammar pretest and posttest were delivered through Google Form. Paired-samples t-test was used to determine the mean difference between grammar pretest and posttest among sixty respondents. The results were shown in the form of paired samples statistics, paired-samples correlations, and paired samples tests.

Paired sample statistics provided descriptive statistics (i.e. mean and standard deviation. The comparison between pretest and posttest mean scores was 69.41 and 78.61. From paired sample correlations, grammar pretest and posttest had a significantly positive correlation ($r = .829, sig = .000$). Based on the paired-samples t-test result, it was found that the pretest and posttest mean scores were significantly different ($t_{(59)} = -5.977, p < .05$). It means that through collaborative learning, students could improve their academic achievement, which was shown by the different results of means of both tests (i.e., the posttest mean score was higher than that of the pretest ($78.61 > 69.41$)). This present study confirmed what previous researchers have investigated in connection with collaborative learning. Collaborative learning improves second language teaching and learning particularly academic achievement (Fjermestad, 2004; Faja, 2013; Schmid *et al.*, 2014; Hernández-Sellés, Muñoz-Carril, & González-Sanmamed, 2015; Stoytcheva, 2018; Springer, Stanne, & Donovan, 1999; and Kumar, 2017). In online grammar classes, collaborative learning was effective to be applied as it had a positive effect on classroom teaching and learning (Kovacic, 2012; Khalil, 2018).

Regarding students' responses towards collaborative learning, students generally reported that applying collaborative activities improve academic achievement. Similarly, collaborative work is valued to facilitate learning and increase academic achievement (Hernández-Sellés, Muñoz-Carril, & González-Sanmamed, 2015). Teamwork, peer interaction, and group work are some activities performed when dealing with task completion. Through these activities, students learn to build their understanding of material content based on peers' input (Item 2), to work collaboratively (Item 3), encourage interaction among students (Item 4), to complete the task within-group community (Item 5), and so forth.

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In correspondence with online class, collaborative activities were implemented in grammar class by making use of technology to mediate teaching and learning activities. Bellanger (2021) stated that asynchronous learning is carried out via computer communication networks as part of online collaborative learning that happens in an educational setting. Some online learning tools and applications such as Google Form (i.e., to become online test worksheet), Zoom (i.e., to conduct synchronous learning), Google Drive (i.e., to store and share learning materials), WhatsApp Group (i.e., to provide means of direct communication between teachers and students) and others are essential for assisting teaching and learning process.

CONCLUSION

The conclusion drawn from the findings is there is an improvement in the level of student academic achievement exposed to learning activities from a significant difference in the pretest and posttest mean scores. Through various collaborative activities such as teamwork, group work, and peer interaction, students learn to be more responsible with their own learning. The teaching and learning process focuses on being student-centered whilst the teacher's role is more to act as students' peers. Collaborative learning is well applied to both online and offline classroom setting with reference to teaching and learning experiences, learning environment, and designing class activities. When designing tasks and activities to encourage students to work collaboratively, it is also necessary to know the level of students.

LIMITATION AND FURTHER RESEARCH

It is important to note several limitations of this study. As this study was aimed at knowing the effectiveness of collaborative learning in online grammar classes using experimental design, the findings cannot simply represent the actual implementation of collaborative learning for certain individual students. Students' perceptions and behaviors towards online grammar learning mediated through collaborative learning should also be explored. Future researchers are suggested to provide rich information regarding students' perceptions and behaviors towards collaborative learning by conducting observation and interviews. The other challenge is the success of academic achievement in online grammar classes, which can be validated by measuring the relationship between achievement and collaborative learning experience.

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