CHAPTER IV

FINDINGS AND DISCUSSION

This chapter focuses on the findings and discussion of the research. It is intended to answer research questions. In other words, it presents the benefits and challenges of online collaborative projects for EFL students collected and analyzed from document studies.

4.1 Findings

The findings discuss the identification results of data collection through narrative review. This section investigates the benefits and challenges that EFL students perceived during online collaborative projects of various levels, including high school, college, and primary education, from different countries: Indonesian, Korean, Iranian, Arabic, Taiwanese, Bulgarian, Hungarian, Italian, Turkish, and Northern Greece. The findings show that data collection tools in the form of interviews and questionnaires are the most dominant primary data sources used in data collection. In addition, tools such as pretest-posttest, group discussions, reflections, and essays/worksheets were the least used data collection tools. The study thoroughly reviewed the data from thirty articles to find key findings related to the research questions. Identified data from 30 articles compiled through an activity system. This study found that the benefits and challenges of online collaborative projects varied. Both results have their respective categories.

4.1.1 Benefits of Online Collaborative Projects

The first research theme is the benefits of online collaborative projects for students. Research inquiries are collected through document analysis. Most L2 students are positive about online collaborative projects. Several benefits have been reported, such as (1) Promoting maximum outcomes, (2) Supporting appropriate use of tools (Features and Feasibilities), (3) Practicing collaboration skills, (4) Conforming to collaborative rules, and (5) Offering flexibility in the role assignment. These five factors are placed among the appropriate components of an activity system. These findings are listed in Tables 4.1 and 4.2.

Table 4.1.   Benefits factor categories and descriptions

No	Types of projects	Open categories	Descriptions	Studies
1	• Collaborative writing • Collaborative reading • IELTS • Cross cultural project • Essay	Promoting maximum outcomes	• Team members strive to create excellent results • Improve students' English skills and enable them to gain more knowledge about writing mechanics, vocabulary, and grammar. • Acquire knowledge of other cultures. • Students acquire pedagogical skills. • Students stated that the main benefits of the wiki-based literature circle included: engaging them in reading and digesting the text independently, improving their English skills, and motivating them. • Students wrote significantly more fluently and performed better in the posttest of writing narrative essays. • Help students experience the benefits of group work and improve their English. • CW assignments have been shown to improve EFL learners' writing skills at the individual level. • Improve writing self-regulation and writing self-efficacy • Students can improve their speaking performance	Al-Rawahi & Al-Mekhlafi (2015), Angelova & Zhao (2016), Castillo-Cuesta, Ochoa-Cueva, & Cabrera-Solano (2022), Chang (2014), Chen, Chuang, & Lacaste (2021), Fischer& Yang (2022), Hafour & Al-Rashidy (2020), Hsu & Lo (2018), Huang (2021), Jeong (2019), Kitjaroonchai & Suppasetseree (2021), Lazar (2015), Li, Li, Su, Peng & Hu (2020), Rahimi & Fathi (2021), Su, Li, Liang, & Tsai (2019, Yunus, Setyosa, Utaya & Kuswandi (2021), Zou, Xie & Wang (2022)
2	• Collaborative writing	Supporting appropriate use of tools (Features and Feasibilities)	• Facebook offers students a space to share and interact with others on topics directly related to their projects. • The use of the Web platform can make a positive contribution to improving students' argumentative discourse	Al-Ahdal & Alharbi (2021), Alqasham (2022), Al Qunayeer (2020), Chang (2014), Shahidan, Ali, & Tilwani (2022), Zhang & Zou (2021), Zioga & Bikos (2020),

No	Types of projects	Open categories	Descriptions	Studies
			writing skills.	Zou, Xie, & Wang (2022)
			• Collaborative MALL lessons give them much-desired flexibility to interact with peers and teachers outside class time.	
			• Technology positively affects the quality of students' co-writing, individual writing development, and perceptions of learning tasks.	
			• Students positively evaluate the platform's technological features that facilitate their learning, reduce stress, and allow them to save time by not having to attend class physically.	
			• Students feel more confident and motivated when interacting with their colleagues through Google Docs.	
			• Students perceive using digital tools (i.e., Google Docs, Wiki) as effective for implementing feedback-assisted collaborative writing.	
3	• Collaborative vlog projects • Online picture book • Essay • Technological workshop	Practicing collaboration skills	• Students can work together with peers • The project is an opportunity to work with students from other schools. • Students agree that working in teams helps them experience the joy of teamwork and cultivates their responsibility to achieve shared task goals. • Participants engage in joint regulatory processes, including planning, monitoring, and evaluation. • Participants in the Global Team interact regularly and can implement their tasks with their overseas partners.	Fuchs (2016), Huang (2021), Lee & Wang (2013), Mali (2017), Zhang, Liu & Lee (2021)

No	Types of projects	Open categories	Descriptions	Studies
4	• Collaborative writing • Cross cultural project	Conforming to collaborative rules	• Taiwanese students value the opportunity for authentic language learning through writing exercises with American readers who can provide writing models and provide feedback. • Selecting a group leader is based on confidence, ability to lead, and knowledge of the group members' English. • The instructor serves as a basic collaborative or group setting for EFL learners to engage in online group discussions on writing. It guides students through the writing process by instructing them in the steps they need to follow, from planning their writing to revising it. • Taiwanese students value the opportunity to study under a native US speaker and especially enjoy learning about the American perspective from a peer.	Al Qunayeer (2020), Cifuentes & Shih (2014), Selcuk, Jones, & Vonkov (2019), Zou, Xie, & Wang (2022)
5	• Cross cultural project • Online picture book	Offering flexibility in the role assignment	• Factors that facilitate student engagement in projects are found in the equal distribution of workload. Both parties share the work equally, such as contributing equally in the language section, and students put more effort into project illustrations. • The intensity of participation of EFL students in this online peer review activity increased for three sessions/three months. • These projects also bridge the socio-economic gap as students who cannot	Al Qunayeer (2020), Chen, Chuang, & Lacaste (2021), Lee & Wang (2013)

No	Types of projects	Open categories	Descriptions	Studies
			afford to go abroad to study can interact with international students through the cross-cultural collaboration aspect of the project.	

Table 4.2. Benefits factors between components of an activity system

Components	Benefits Factors
Subject ←→ Object	Promoting maximum outcomes
Subject ←→ Tools	Supporting appropriate use of tools (Features and Feasibilities)
Subject ←→ Community	Practicing collaboration skills
Subject ←→ Rules	Conforming to collaborative rules
Subject ←→ Division of Labour	Offering flexibility in the role assignment

Of the 30 review articles, this study concluded that the benefits of online collaborative projects varied in improving student skills. With the help of Web tools such as Wikis and Google Docs, EFL students successfully carry out online collaborative projects, including collaborative writing projects, cross-cultural projects, collaborative reading, video projects, IELTS projects, picture book projects, technology workshop projects, digital stories, and essays. Table 4.1 and 4.2 shows five benefits of online collaborative projects. To proceed, the details are explored in the following description.

4.1.1.1 Promoting Maximum Outcomes

This study seeks to identify the benefits that EFL students perceived during online collaborative projects. The beneficial factors are placed among the appropriate components of an activity system. The most frequently observed beneficial factors between the subject and object components are found. The object is the goal or result of the activity. In collaborative learning, the object is often to learn new information or skills. The analysis results reveal that the component between subject and object is the part that appears the most (17 out of 30 articles). An increase in the language learning achievement of EFL students marks this. Increasing students' academic knowledge as it enables them to gain

more knowledge about writing mechanics, vocabulary, and grammar through online collaborative projects, for example collaborative writing and reading. This is demonstrated by the following studies, such as Al-Rawahi and Al-Mekhlafi (2015), which reported that when students did collaborative PBL online, their writing skills improved more than when they worked individually and offline.

Through collaborative wiki writing, learners can become more aware of how adequately and accurately their ideas are conveyed in words and develop the ability to analyze more critically not only their writing but also that of their partners' (Hsu & Lo, 2018). The same thing was also found in Zou, Xie, and Wang's research (2022), which reported that almost all students agreed that they had benefited a lot from collaboration with the help of feedback. Students feel that they have learned how to find relevant information to build on their writing ideas, evaluate arguments, points of view, and supporting evidence, and organize their findings and evidence.

Furthermore, the online collaborative project significantly improved their spoken English learning performance (Fischer & Yang, 2022). For example, Huang (2021) reported that pursuing students' collaborative vlog projects can improve their speaking performance because it allows them to experience the dynamics of group interaction in terms of organization and discussion of vlog content with peers. Then, students involved in reading and digesting the text themselves can motivate to build their English vocabulary (Su, Li, Liang, & Tsai, 2019). Lastly, online collaborative projects help students strengthen their content knowledge in English grammar (Angelova & Zhao, 2016).

4.1.1.2 Supporting Appropriate Use of Tools (Features and Feasibilities)

The following benefits factor EFL students perceive from online collaborative projects is between the subject and tools components. This section appears eight times. Tools are the resources used by the subject to achieve the object. In collaborative online learning, tools can include physical objects, such as textbooks and computers, as well as social objects, such as the knowledge and skills of other learners. From 30 review articles, it was found that web-based technology can be a potential tool for collaborative online learning because it enriches learning performance by building personal knowledge and sharing group knowledge. L2 education has long been interested in technology-enhanced language learning, and many scholars have undertaken review studies in this area (Zhang & Zou, 2021). Virtual Communities allow students in the study to work in small groups to achieve common goals and strengthen their commitment to the values inherent in collaborative learning.

Alqunayer (2020), in his research, reported that students positively evaluate platform technology features that facilitate their learning, reduce pressure, and enable them to save time by not having to attend class physically. Facebook offers students a space to share and interact with others on topics directly related to their projects (Alqasam, 2022). Students feel more confident and motivated when interacting with their peers through Google Docs (Shahidan, Ali, & Tilwani, 2022). Technology positively affects the quality of students' co-writing, individual writing development, and perceptions of learning tasks (Zhang & Zou, 2021). The Web platform can improve students' argumentative discourse writing skills (Zioga & Bikos, 2020). Students perceive the use of digital tools

(i.e., Google Docs, Wiki) as effective for implementing feedback-assisted collaborative writing (Zou, Xie, & Wang, 2022).

4.1.1.3 Practicing Collaboration Skills

Of the 30 review articles, this study found that online collaborative projects positively impacted students' collaboration skills. These collaboration skills are closely related to activity theory's subject and community components. Community is a group of people involved in these activities, either directly or indirectly. In collaborative learning, community can include teachers, classmates, and other stakeholders. This collaboration skill appeared in 5 out of 30 articles. Collaboration occurs when two or more people work together to achieve a common goal. Collaboration skills allow students to work well together with other students. Mali (2017) found that project-based learning activities, such as technology workshop projects, are carried out in groups of three students. In this project, students must prepare PowerPoint slides to present to their classmates. Mali concluded that this activity allows students to practice collaborative skills online. Students learn to deal with differences and combine ideas and mindsets in groups to form one solid project.

Through online collaborative projects, students can interact regularly and implement their assignments with foreign partners (Fuchs, 2016). Students in the study considered online collaborative projects helpful in increasing communication and interaction with other students with the help of media platforms, such as Wikis and Google Docs, making it easier for them to collaborate online. Lee and Wang (2013) reported that three factors facilitate

student engagement in projects: equal workload sharing, appreciation of different opinions, and constant communication. Most students in the study agree that working in teams helps them experience the joy of group collaboration and cultivates their responsibility to achieve shared task goals (Huang, 2021). Participants engage in joint regulatory processes, including planning, monitoring, and evaluation (Zhang, Liu & Lee, 2021).

4.1.1.4 Conforming to Collaborative Rules

Several review articles have found that the benefits of online collaborative projects lie in applying clear and appropriate rules. With these directed rules, it can make it easier for team members to complete projects well. The conformity of the rules lies between the subject and rules components in activity theory. Rules are guidelines that govern activities. In collaborative learning, rules can cover things like how to share information, how to resolve conflicts, and how to give and receive feedback. Research review articles found this component between subject and rules four times. The election of a group leader within the group marks the hallmark of the application of this rule. This selection is based on the confidence and ability to lead and knowledge of the English language of group members (Selcuk, Jones, & Vonkov, 2019). The instructor is the basic collaborative or group setting for EFL learners to engage in online discussions. The instructor guides students in the steps they need to follow, from planning their project to revising it (Alqunayer, 2020). Students in the study reported that teacher feedback helps students realize their limitations, making it easier for them to work on and complete projects (Zou, Xie, & Wang, 2022).

The benefits EFL students feel in the study from applying the rules make it more accessible during online collaborative projects and can train students' open minds. Open-mindedness is like respecting each other's opinions, and students accept ideas and arguments from group members. The following studies demonstrate this, as Cifuentes and Shih (2014), reported that Taiwanese students appreciate the opportunity to learn authentic languages through writing exercises with American readers who can provide writing models and feedback. Taiwanese students value the opportunity to study under native US speakers and especially enjoy learning about the American perspective from peers.

4.1.1.5 Offering Flexibility in the Role Assignment

Lastly, the benefits found from online collaborative projects also lie in applying flexible role assignments. This section is located between the subject component and the division of labor. Division of labor is the way tasks are assigned and completed within activities. In collaborative learning, the division of labor can be flexible, with students working together to share tasks and responsibilities. Flexible role assignments only appeared three times out of 30 articles. This beneficial factor is found in research such as Lee and Wang (2013) reported that factors facilitating student involvement in projects are found in the equal workload distribution. Both parties share the work equally, such as making equal contributions in parts of the project. The intensity of participation of EFL students in projects has also increased (Alqunayer, 2020). In addition, students feel that online collaborative projects can be carried out flexibly. The flexibility of online group work involves learning anytime and anywhere as long as an internet

connection is available because students who cannot afford to go abroad to study can interact with international students through cross-cultural collaboration (Chen, Chuang & Laceste, 2021).

4.1.2 Challenges of Online Collaborative Projects

The second theme lies in the challenges of online collaborative projects for EFL students. On the other hand, L2 students feel some negative effects from online collaborative projects, such as (1) In-group disagreement, (2) Incompetence in certain skills, (3) Delays in project finishing and completion, (4) Technical issues in the devices, and (5) Delayed or slow response. These five findings are listed in Tables 4.3 dan 4.4.
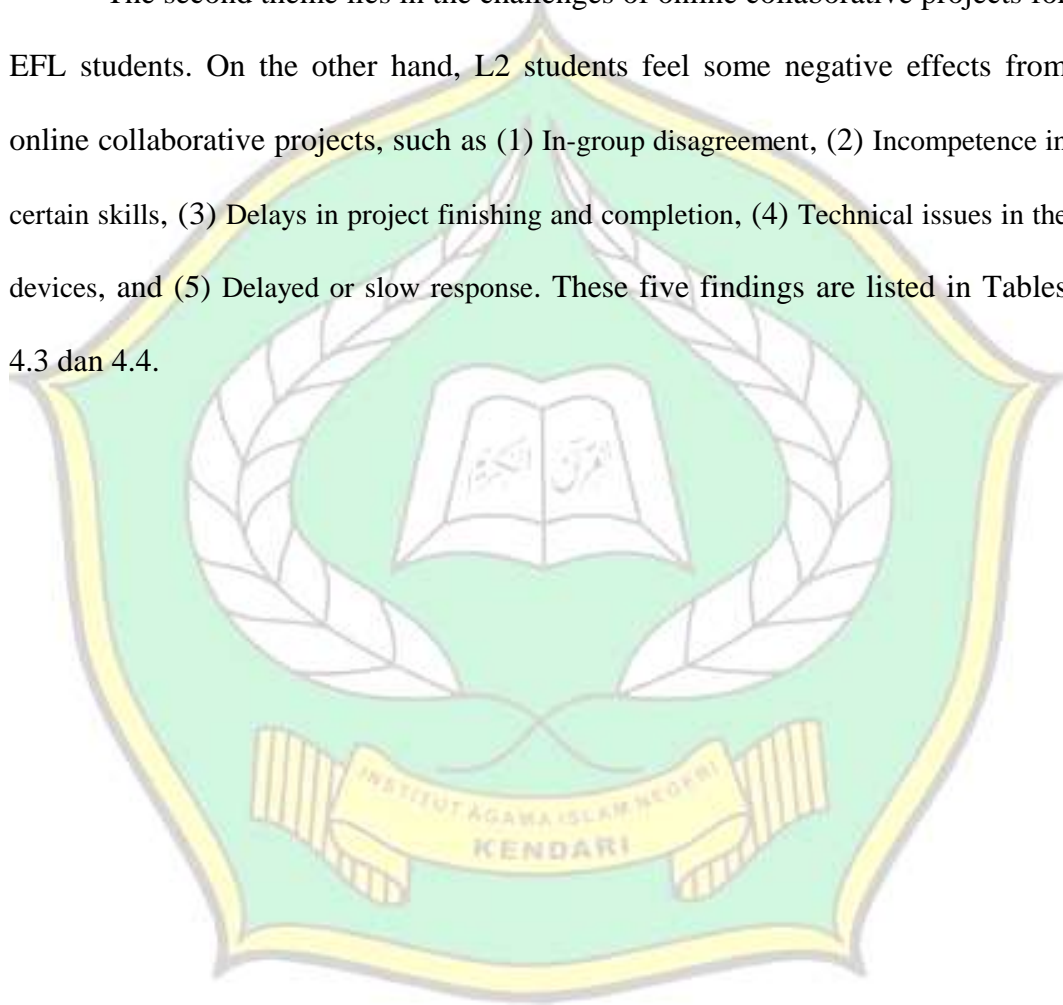
Table 4.3. Challenging factor categories and descriptions

No	Types of projects	Open categories	Descriptions	Studies
1.	• Online picture book • Technological workshop • Essay • Cross cultural project	In-group disagreement	• Students think that more time should be allocated to complex online assignments. • The time zone differences often associated with international collaboration interfere with participants' ability to meet in real-time, and online teaching and learning can prove time-consuming for all participants. • Online collaboration is time-consuming and frustrating because of time delay and lack of peer responses. • Group members do not find time to meet and work on assignments together. If one can make it, then others can't.	Al-Rawahi & Al-Mekhlafi (2015), Cifuentes & Shih (2014), Lee & Wang (2013), Mali (2017)
2.	• Cross cultural project • Collaborative vlog project • Online picture book	Incompetence in certain skills	• Some students stated that they or their group members lacked the artistic talent to create illustrations for online picture books or that their English skills were limited to writing stories. • Collaborative cross-cultural projects can be challenging for non-English speaking students as they need to focus/multiply their efforts on their language skills, such as listening, speaking, reading, and writing, especially when encountering difficulties. • Students find it difficult to choose the appropriate vlog content. • Some students did not understand the ideas conveyed by group members because they had difficulty understanding English, leading to inaccurate language.	Al-Rawahi & Al-Mekhlafi (2015), Chen, Chuang, & Lacaste (2021), Huang (2021), Lee & Wang (2013)
3.	• Online picture book • Technological	Delays in project finishing and completion	• The role of individual members in projects that are not taken seriously also makes some	Lee & Wang (2013), Mali (2017), Priego & Liaw (2017)

No	Types of projects	Open categories	Descriptions	Studies
	workshop • Essay • Digital story telling project		students reluctant to participate in projects actively • Some students in their group depend on one student who they think is the smartest among them because they are too lazy to think. • There was a lack of Canadian students' participation, while Taiwanese students continued to work on stories steadily. They then face the dilemma of whether to work alone or wait for their Canadian partners to communicate and whether or not to change the storyline	
4.	• Technological workshop • Essay • Cross cultural projects	Technical issues in the devices	• Vulnerability to technical failure, constraints of e-mail • Students cannot follow their peers' instructions because the internet connection is too slow • Connectivity issues	Alqasham (2022), Cifuentes & Shih (2014), Mali (2017)
5.	• Online picture book • Cross cultural project	Delayed or slow response	• Delayed communication hinders good teamwork and increases student frustration. • Slow or no response from partner causing frustration.	Cifuentes & Shih (2014), Lee & Wang (2013)

Table 4.4. Challenging factors between components of an activity system

Components	Challenges Factors
Subject ←—→ Rules	In-group disagreement
Subject ←—→ Object	Incompetence in certain skills
Subject ←—→ Division of Labour	Delays in project finishing and completion
Subject ←—→ Tools	Technical issues in the devices
Subject ←—→ Community	Delayed or slow response

The results of the data analysis also found several challenges in implementing online collaborative projects, as shown in Tables 4.2 and 4.3, which summarize some of the challenges during online collaborative project activities. These challenges are closely related to the six components of theory activity. To proceed, the details are explored in the following description.

4.1.2.1 In-Group Disagreement

Learners face contradictory situations as they proceed with group projects. The analysis revealed five challenge factors, as shown in Table 4.3. The identified challenge factors lie among the matched components of the activity system. Table 4.4 shows the conflicting factors between each activity system component. Most of these challenge factors were found in the subject and component rules. This section appears in as many as 4 of the 30 articles.

The obstacle EFL students face from online collaborative project activities is disagreement in groups due to the lack of application of rules, for example, in terms of time management which is still inflexible, resulting in less efficient project work and even delays. Students think more time should be allocated for complex online assignments, such as collaborative online picture books (Lee & Wang, 2013). Online collaboration is also time-consuming and frustrating due to time lags and a lack of peer response. (Al-Rawahi & Al-Mekhlafi, 2015). This

aligns with the findings of Mali (2017), who reported that group members did not find the right time to meet and work on assignments together. The time zone differences often associated with international collaboration also interfere with the ability of participants to meet in real-time, and online teaching and learning can prove time-consuming for all participants (Cifuentes & Shih, 2014).

4.1.2.2 Incompetence in Certain Skills

Based on the data collected through document analysis, this study also found that incompetence in certain skills is a challenge in online group work. This relates to activity theory on subject and object components. The challenge factor in terms of incompetence in certain skills appears four times. In their research, several studies, such as Al-Rawahi and Al-Mekhlafi (2015), reported that some students did not understand the ideas conveyed by group members because of difficulties understanding English, resulting in inaccurate language. Cheng, Chuang, and Laceste's (2021) research investigated that collaborative cross-cultural projects can be challenging for non-English-speaking students because they need to focus/redouble their efforts on their language skills, such as listening speaking, reading, and writing, especially when they face obstacles. The same thing was expressed by Lee and Wang (2013) in their research which reported that some students stated that they or their group members lacked the artistic talent to create illustrations needed for online picture books or their English skills were limited to writing stories. This aligns with Huang's findings (2021) that students have difficulty choosing the appropriate vlog content for their projects.

4.1.2.3 Delays in Project Finishing and Completion

The habit of students who often procrastinate is also a further challenge in online collaborative projects. This finding appeared three times out of thirty articles. The habit of procrastinating work is associated with activity theory in the subject and division of labor components. The habit of students delaying work is often caused by the role of individual members in projects that are not taken seriously, making some students reluctant to actively participate in projects (Lee & Wang, 2013). Some students who are used to being taught directly will be lazy to complete assignments in groups. They will depend on other friends in the group who are probably the smartest because they are too lazy to think (Mali, 2017).

The habit of procrastinating is also often found in cross-cultural collaborative projects, as in Priego and Liaw's (2017) research, who reported an online collaborative project of Canadian and Taiwanese students with a less flexible division of tasks. The Canadian students did not actively participate in the project, while the Taiwanese students continued to work steadily on the stories. They then faced the dilemma of whether to work alone or wait for a response from their Canadian partners.

4.1.2.4 Technical Issues in the Devices

Technical issues in the devices like internet connection and technological tools are still significant challenges in online collaborative project activities. The problem with this system lies between the subject and tools components (3 out of 30 articles). Based on the results of data analysis, it was found that the influence of a bad internet connection causes communication difficulties. Lack of

communication cannot be ignored when there is a lack of internet connection. This can also cause misunderstandings between students and lecturers. Meanwhile, Mali (2017) reports that a slow internet connection prevents students from following their friend's directions. In addition, the vulnerability to technical failures, email constraints, Wiki, and Google Docs, causes delays in project completion (Cifuentes & Shih, 2014).

Lastly, a lack of experience in using educational technology is generally detrimental to student online project collaboration. A common student complaint concerns unfamiliarity with the platform. For example, Alqasam (2022) reports that students' difficulties in online collaborative projects are unsure how to use media, such as inserting pictures and exchanging files. In addition, the platforms are boring, use can be distracting, and there is no seriousness, as students are doing several other jobs simultaneously, creating distractions and no sincerity.

4.1.2.5 Delayed or Slow Response

Delayed or slow response from peers is the last challenge that EFL students perceived during online collaborative projects. This challenge lies between the subject and community components of the activity system. This is the least challenging in online collaborative projects (2 out of 30 articles). Cifuentes and Shih's (2014) research found that the lack of participation of group members or slow response was an obstacle. In their research, Lee and Wang (2013) also revealed that some students did not notice directions during activities. They prefer to surf other sites and ignore peer instructions. Delayed communication hinders good teamwork and increases student frustration.

4.2 Discussion

This study aims to investigate the benefits and challenges that EFL students perceived during online collaborative projects. A total of 30 articles were reviewed to examine research questions. The findings show that online collaborative projects positively impact EFL students with excellent results improvement, supporting appropriate use of tools (features and feasibilities), practicing collaboration skills, conforming to collaborative rules, and offering flexibility in the role assignment. Furthermore, it related to the challenges students face, such as in-group disagreement, incompetence in certain skills, delays in project finishing and completion, technical issues in the devices, and delayed or slow response. This section will discuss the findings with relevant review studies.

4.2.1 Benefits of Online Collaborative Projects

Of the 30 articles analyzed in this study, it was found that online collaborative projects proved helpful. This study found five benefits felt by students related to online collaborative projects. Of the five benefits, promoting maximum outcomes, such as increasing academic knowledge, impacts students the most. This is found in collaborative writing and cross-cultural projects. Most students in the study reported that through online collaborative projects, they could gain better academic knowledge than studying individually, such as improving students' writing skills. The findings in this regard are in harmony with those of Hsu (2019), who found positive roles of collaborative wiki writing in improving students' writing performance. Collaborative writing has developed L2 students' creativity and critical thinking (Ebadi & Rahimi, 2018). Furthermore,

online collaborative projects can improve the performance of spoken English learning. This is in line with Widyastuti's (2021) finding, which reported that peer assessment and project-based learning could improve students' speaking skills and help students understand correct pronunciation by getting corrections from peers.

The next most significant benefit obtained by students in the study lies in the subject and the competence of the tools. Web-based technologies such as Wikis and Google Docs can be potential tools for collaborative online learning because they enrich learning performance by building personal knowledge and sharing group knowledge. This is closely related to Wang (2014), who reported that technology increases students' motivation to use the target language and confidence in L2 writing, enabling positive attitudes toward collaborative learning tasks. Bikowski and Vithanage (2016) also observed the positive effects of technology. They argued that increased motivation and self-confidence could be transferred to individual writing activities and improve students' writing abilities. Abrams (2019) states that with the help of technology, students are more likely to pay attention to their colleagues' mistakes and encourage one another to reflect on their writing.

The next benefit that students feel in learning from online collaborative projects is that they can practice collaborative skills. This category is at the middle level. The findings show that online project collaboration provides opportunities to work with students from other schools; students learn to deal with differences and combine different ideas and mindsets in groups to become one solid project. These are found in project essays and online picture books. This aligns with Wang's (2014) found that students interact with their peers to collaborate on their

work, allowing them to share knowledge, discuss new ideas, and reflect on what they have learned. Rasyid and Khoirunnisa (2021) also reported that project-based learning could encourage student collaboration, engage motivation in learning English (Wongdaeng & Hajihama, 2018), and allow students to share ideas (Rao, 2019).

The last finding of the benefits of online collaborative projects for EFL students lies in applying appropriate rules and an equal division of labor. These two sections are the findings of the most minor benefit to student collaboration. Nonetheless, these two points also had an impact on student improvement. With these directional rules, it can make it easier for team members to complete projects well. The benefits EFL students feel from applying the rules make it easier during online collaborative projects and can also train students' open minds. Open-mindedness is like respecting each other's opinions, and students accept ideas and arguments from group members.

This study's results align with the findings of Kayumova & Sadykova, 2016), which reported that studying with students from other countries is beneficial by studying different country systems, gaining other perspectives, reflecting on their attitudes, and practicing being like-minded people, open and critical. Lee and Markey (2014) found that students saw online exchanges as an excellent venue for intercultural communication with native speakers. Through social engagement, students acquire cultural knowledge and become more aware of their beliefs and attitudes toward their culture.

4.2.2 Challenges of Online Collaborative Projects

Not many students in the study shared the challenging parts of the online collaborative projects. They generally find in-group disagreement and incompetence in certain skills a challenge. As presented in Table 4.3, students found several problems related to disagreements in groups due to the lack of application of rules and incompetence in certain skills were the two most challenging factors in implementing online collaborative projects. This is found in collaborative online picture book projects and cross-cultural projects. The obstacle that EFL students face from online collaborative project activities is that some of them or group members lack project-related talent, and their English skills are limited. In addition, the lack of application of rules, for example, in terms of time management, is still inflexible, resulting in less efficient project work and delays.

The findings in this regard are in harmony with those of Brodahl and Hansen (2014), who found that collaborative writing can sometimes be time-consuming, especially since disagreements are often frustrating, in line with the findings of MacNeill, Telner, Sparaggis-Agaliotis, and Hanna (2014), who reported that online collaborative group work is time-consuming and resource intensive and may not be ideal for brief interactions.

Of the 30 review articles, this study further explained several other minor challenges in online collaborative projects, such as delays in project finishing and completion, technical issues in the devices, and delayed or slow responses from team members. These are found in technological workshop projects, essays, collaborative vlog projects, and digital stories. The results of this study correlate with research conducted by Rojabi (2020), which confirms that

miscommunication between students in online learning due to poor signals often occurs when making online presentations. Similarly, Gillet-Swan, (2017) stated that students experience more challenges when doing group assignments online than in a traditional classroom environment. Chang & Kang (2016) and Gillet-Swan (2017) found some of the most common challenges in online group learning, for example, a lack of community and connection (Gillet-Swan, 2017). This aligns with what Arnold (2012) found: social laziness undoubtedly occurs in collaborative classes. Some students use this opportunity to discuss unimportant subjects and not concentrate on work.

Similarly, Lee and Reigeluth (2015) reported that conflict during collaborative activities stimulates members' thinking by making them explain, debate, and negotiate their positions. Conflict or differences of opinion during collaboration can be complicated to resolve, hindering reaching an agreement and eliminating all learning processes. Crocco and Culasso's (2021) research also highlights unequal participation in group projects as a challenge for online collaborative projects. As a result, educators and students have had difficulty adapting their course delivery to specialized online settings and benefiting from group work.