

Use of Social Media for Collaborative Learning in Online Learning: A Literature Review

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ABSTRACT

When schools are closed to avoid face-to-face learning during this pandemic, students use social media to continue learning. Social media has become a tool for distance learning, from situations that require online learning from home. The purpose of this study was to conduct a literature study on how to accept and use social media in learning by students in high schools and colleges, as well as its use in online collaborative learning. This article summarizes insights from a recent research literature review published between 2015-2020 on how social media is accepted and used in learning in high schools and colleges. The results of the study indicate that the use of social media can be used to support learning activities. This is because social media such as Facebook and WhatsApp are easy to use and popular among students, so social media can support learning. From the ease of using social media in sharing learning resource information, interacting, collaborating, and discussing, of course, collaborative learning outside the classroom can be realized. However, it is necessary to design learning activities that suit the needs of utilizing social media for effective and meaningful learning, so that it can support collaborative learning between students and teachers to achieve the goals and needs of students' online learning. Therefore, we propose a collaborative learning activity model using Facebook and Whatsapp.

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1. INTRODUCTION

When schools are closed to not do face-to-face learning during this pandemic, students use social media to continue learning (Radwan et al., 2020). Schools are turning to online forms of learning and

social media is a solution for learning and building online communities, which can forget the distance students feel. (Greenhow & Chapman, 2020). Social media has become a tool for distance learning from situations that require online learning from home. So that learning continues, even though the distance between students and teachers is felt, social media keeps students and teachers connected when apart (Greenhow & Galvin, 2020).

Learning by utilizing social media is an effort to encourage learning that is carried out anytime and anywhere. Facebook and WhatsApp are popular social media used by students, so they are accepted and used by students for both formal and informal learning activities. This is encouraged because social media is already popular among students and easy to use, so that social media can be used to support learning activities (Alalwan et al., 2019; Atkins et al., 2017; Dennen et al., 2020). (Alalwan et al., 2019) With the perceived benefits and ease of use of social media, so that social media can be used for online learning and communication in learning. The use of social media can enhance students' active learning and enable them to share learning resources, information, and discussions efficiently (Al-Maatouk et al., 2020). (Greenhow & Galvin, 2020), Social media learning supports an asynchronous online learning environment, and students can learn at their own pace. (So, 2016) Students can also use the online learning environment to interact with teachers and peers.

Social media to support learning, the information posted must be aligned with the online learning objectives (Luo et al., 2020). So that it can help spark discussion between students and feel part of the learning community (Zarzour et al., 2020). (Akman & Turhan, 2017) Whereby creating a safe community, students and teachers can help solve learning problems, etc. Learning using social media also has an impact on the ease of collaborative learning connections between members of student groups in various learning project activities (Al-Rahmi et al., 2018; Stathopoulou et al., 2019). Thus the learning needs of students during online learning from home are met. However, it is necessary to have an appropriate and appropriate framework of learning activities in utilizing social media for effective and meaningful learning, so that it can support collaborative learning between students and teachers.

The purpose of this research is a literature study on how to accept and use social media in learning in high school and college students, as well as its use in online collaborative learning. Specifically, this literature review is to answer the following research questions:

1. Is social media can be used for learning?
2. How is the acceptance of using social media for learning?
3. How to use social media, especially Facebook and WhatsApp in learning?
4. How the use of social media can support collaborative learning in distance learning during the current pandemic?

2. METHODS

This article is a systematic literature review of the most recent research published between 2015-2020 on the use of social media in learning. This systematic review uses 4 stages modified from previous research by (Luo et al., 2020), consisting of 1) Identification of research questions, 2) Identification of relevant articles, 3) Evaluate, map and synthesize relevant articles, and 4) Compile and build empirical evidence from the results of the articles reviewed.

Searches were conducted with a focus on keywords in the SCOPUS, ScienceDirect, and ERIC. databases. The process of identifying relevant article search results is carried out using the following keywords: social media, Facebook, WhatsApp, education, learning, collaboration learning, dan TAM. The search is carried out with two predefined keyword combinations such as: (social media; learning), (social media; collaboration learning), (social media; TAM), (Facebook; education), (Facebook; collaboration learning), etc. All articles obtained were analyzed according to research questions so that the articles obtained were relevant to the topic of discussion. Articles were selected based on the following criteria: English-language journals, use of social media in learning, studies conducted in high schools and colleges, and published between 2015-2020.

A total of 1,966 articles were identified in the first search and 24 relevant articles were selected for review plus 8 literature review articles (Coleman & O'Connor, 2019). The whole process of identifying articles after PRISMA is presented in Figure 1.

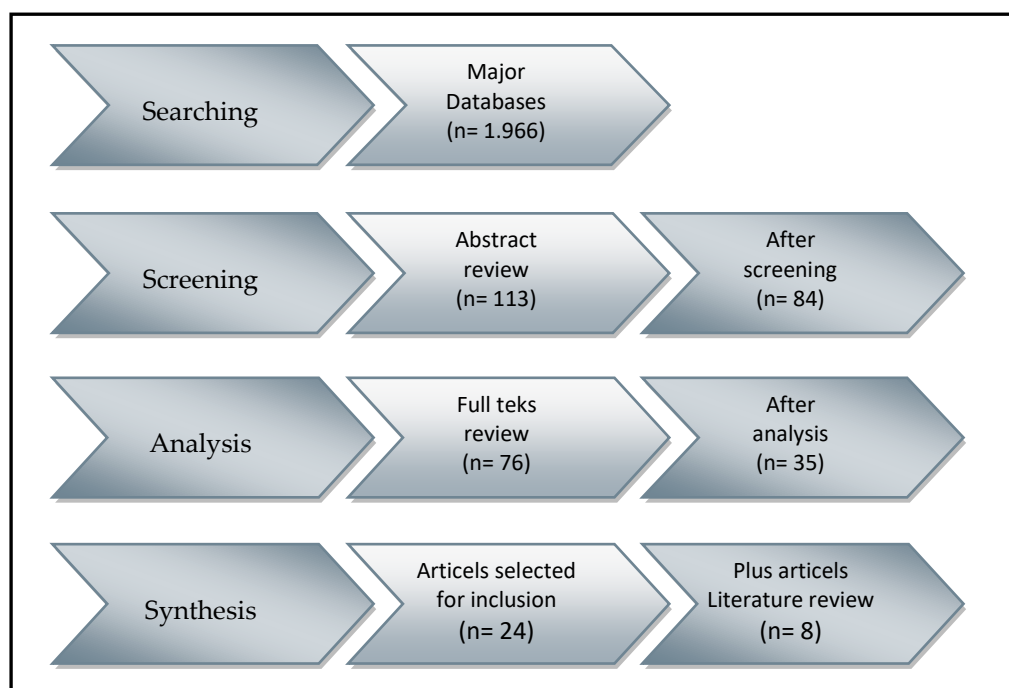


Figure 1. Process of article identification following PRISMA

3. FINDINGS AND DISCUSSION

These findings answer the research questions posed:

1) *Social media is used in learning*

Before the covid-19 outbreak, most of the students were not involved in any digital platform to study (Kapasia et al., 2020). However, since the COVID-19 outbreak hit, the Indonesian government implemented a social distancing policy for COVID-19. Including the impact on the education sector, schools are closing for face-to-face learning, switching to online learning from home, or distance learning. In its application, the learning system from home by utilizing technological advances, one of which is social media. (Radwan et al., 2020) During school closures, students use social media to continue learning.

Social media in learning that is used as a means of education both formal and informal. (Al-Rahmi et al., 2020) Social media is a good tool to develop and improve education implementation. (Manca, 2020) These social media platforms are used in a variety of learning situations, from very formal curricula to more informal contexts. (Chugh & Ruhi, 2018) It finds student practice in a formal learning environment, and (Akman & Turhan, 2017) accepted and used by students. This means that social media has become a means to carry out learning in the world of education, both formally and informally.

The use of social media is already popular among students and easy to use, so it can be used for learning activities. (Dumpit & Fernandez, 2017) Social media sites that are simple and easy to use are considered more useful. (Alalwan et al., 2019) The perceived benefits and ease of use of social media, which in turn increases the behavioral intention of students to utilize social media for collaborative learning and online communication. (Atkins et al., 2017) Social media can be used as a center for learning and teaching, and (Dennen et al., 2020) Social media can be used to support learning activities.

Students and teachers can use social media as a learning resource such as sharing and collaborating, online learning communities, increasing interaction, and solving problems. (Al-Maatouk et al., 2020) Social media can enhance students' active learning and enable them to share learning resources, information, and discussions efficiently. (Atkins et al., 2017) Social media for sharing and building networks and communities. (Alalwan et al., 2019) For online communication and support, effective student interaction and engagement and (Akman & Turhan, 2017) create safe communities where students and teachers can help solve problems.

Learning by utilizing social media is an effort to encourage learning that is carried out anytime and anywhere. Distance learning is done online, where students and teachers cannot meet face to face in one room. So we need tools or media that support learning to continue and become an online learning community. So that social media can support the implementation of online learning during the current pandemic. (Greenhow & Chapman, 2020) K-12 education is at the forefront, and social media is part of a plan to help distance education. (Greenhow & Galvin, 2020) Social media, when properly integrated into online learning plans, keeps students and teachers connected when apart, increases student engagement, and distance learning doesn't seem too far off. (Gurjar, 2020) Structured learning assignments with student-planned content succeeded in reducing the transactional distance in distance learning, student-student interaction, and student-teacher by utilizing social media. Thus, social media is used in distance learning to remove the distance barrier that separates and helps student-teacher interactions remain intertwined, thereby reducing the perceived distance between students and teachers.

Online learning uses social media, so learning from home is carried out to provide a more meaningful learning experience for students. (Al-Rahmi et al., 2018) The use of social media can lead to the development of a positive and conducive learning environment which is invaluable. Social Media has proven to be very useful in learning because it can integrate students into effective, useful, and valuable activities. (Stathopoulou et al., 2019) The use of social media as a support tool can encourage deeper learning and higher levels of understanding. (Greenhow & Galvin, 2020) In the asynchronous online combined learning environment, students can learn at their own pace and engage meaningfully with other students and their teachers.

The use of social media with various types that are commonly used, such as Facebook, Instagram, Telegram, WhatsApp, Youtube, Line, Twitter, and others, can be used in learning. However, of course, it will be difficult to determine which one is the best to use in these learning activities. One of the obstacles, for example, is the geographical location in a mountainous area that is constrained by unstable internet quality. (Dumpit & Fernandez, 2017) That the usability value of any social networking site or information system will not be effective because of an unstable internet connection. (Kapasias et al., 2020) Students who live in mountains and remote areas, refuse to study online because of poor internet connection. So it is necessary to choose the right social media platform and in accordance with the existing conditions and environment and use the right activity framework to support effective and meaningful learning.

2) Acceptance of using social media for learning

One of the popular models used by researchers to help explain technology acceptance is the Technology Acceptance Model (TAM). Likewise, in research on the use of social media for learning, there are those who propose and use the TAM research model (Akman & Turhan, 2017; Al-Maatouk et al., 2020; Ansari & Khan, 2020; Dumpit & Fernandez, 2017; Kim et al., 2020; Liao et al., 2015) and others. (Kim et al., 2020) TAM has been applied to understand the acceptance of new technologies in a variety of contexts and ultimately covers the scope of TAM. (Al-Maatouk et al., 2020) Recommend the theory of TTF and TAM as contributors to further understanding of students' behavioral intentions and task technology to utilize social media to improve students' academic performance.

Social media is easy to use and popular with students, so social media is widely used to support learning. Students show positive perceptions and acceptance of using WhatsApp for the learning process (So, 2016). (Radwan et al., 2020) Facebook is the most popular and easy to use among students

(81.8%). So that social media such as Facebook and WhatsApp, because of their popularity and convenience, have been used for learning. Results from several studies (Al-Rahmi et al., 2018; Dumpit & Fernandez, 2017) that social media is easy to use so that the impact on the use of social media is considered more useful and valuable in learning. So that social media can be used to support learning activities (Alalwan et al., 2019; Atkins et al., 2017; Dennen et al., 2020; Sharma et al., 2016).

3) The use of Facebook and WhatsApp in learning

The results of the study show the benefits of using social media in learning, namely: as a learning resource (Chugh & Ruhi, 2018), for digital media literacy (Cole et al., 2017; Zarzour et al., 2020), to build a network of online learning communities (Alalwan et al., 2019; Atkins et al., 2017; Luo et al., 2020), improve peer and teacher interaction (Ansari & Khan, 2020; Awidi et al., 2019; Cao & Tian, 2020; So, 2016), to facilitate distance learning (Greenhow & Chapman, 2020; Greenhow & Galvin, 2020; Gurjar, 2020), and support collaborative learning (Akman & Turhan, 2017; Al-Rahmi et al., 2018; Awidi et al., 2019; Cao & Tian, 2020; Cole et al., 2017; Stathopoulou et al., 2019). In this discussion, we focus on discussing the use of social media Facebook and WhatsApp:

3.1. Facebook

Facebook is one of the popular platforms used for learning support tools. (Aleksandrova & Parusheva, 2019) Affirming that the most widely used tool for academic-related communication is Facebook. (Radwan et al., 2020) Facebook is the most commonly used social media platform among students, this app is used because of its popularity among students and ease of use. (Sharma et al., 2016) Facebook is one of the popular online platforms which is widely accepted by students and is used to share text and multimedia with other users conveniently. So, Facebook can be used for learning purposes, both formal and informal. (Chugh & Ruhi, 2018) Facebook can be used as both a formal and informal tool for learning, and Facebook as an effective educational tool in the context of student learning. However, the use of Facebook must be designed appropriately and efficiently to achieve learning objectives. (Luo et al., 2020) The information posted to social media platforms should align with the overall goals of the online learning community. Then, (Awidi et al., 2019) that designing learning through Facebook must be well integrated into the learning program.

The selection and use of Facebook can maximize the features available for learning purposes. Several Facebook interaction features such as share, post, like, and comment are appropriate to provide effective learning support for students (Zarzour et al., 2020). (Miller et al., 2019) Facebook users can post written messages of unlimited length and like or share articles, videos, and so on posted by other users. (Cole et al., 2017) Use Facebook to facilitate communication in groups and to keep documents and records. So that Facebook can create special groups or pages for use in learning, and invite students to participate by exchanging information and ideas, links to websites, videos, pictures, and other materials related to the subject matter.

By joining a Facebook group, students can carry out various activities in an organized manner, such as sharing subject matter in various forms of content, exercises, and interacting with each other. By joining a Facebook group, students can carry out various activities in an organized manner, such as sharing subject matter in various forms of content, exercises, and interacting with each other. Facebook groups are also used as a tool to engage students in discussion forums (Awidi et al., 2019; Cole et al., 2017). So that the interaction between students and teachers and between students, can be done anytime and anywhere by them (Chugh & Ruhi, 2018). Thus, learning activities with Facebook can take place anytime and anywhere that can meet the learning needs of students during distance learning.

3.2. WhatsApp

In the distance learning period that took place in the Covid-19 era, WhatsApp became one of the applications that were often used for learning activities. (Kapasias et al., 2020) In India, the majority of respondents use WhatsApp groups to get subject matter from teachers and friends. (So, 2016) In general, WhatsApp for the learning process is well received and can complement formal and informal learning. Students from formal and informal education currently use WhatsApp for school and out-of-school activities.

WhatsApp has become one of the most popular mobile messaging applications in the world, so use WhatsApp in learning to support discussion and facilitate interaction and exchange of information in several media formats (Manca, 2020). (Rosenberg & Asterhan, 2018) WhatsApp groups allow them to ask their colleagues for help to upload homework and share tasks and solutions and explain to each other. So, WhatsApp is an effective communication medium used anytime and anywhere (So, 2016), thereby helping students and teachers stay connected when apart (Greenhow & Galvin, 2020). With WhatsApp, functions such as: can send text messages, voice messages, video messages, pictures/photos, videos, and documents. Through WhatsApp group media, student and teacher interactions can be established anytime and anywhere to support learning activities. So that when online learning, students do not experience much difficulty in following the learning process.

4) Collaborative learning with social media

Learning by utilizing social media is an effort to encourage learning to be carried out anywhere and anytime. Although there is a limiting distance, student-student interaction and student-teacher interaction are still easily interwoven in various learning activities such as sharing information on learning resources, collaborating, and discussing. This is supported by the features available on these social media; as stated (Sharma et al., 2016) that Facebook offers the right platform for users to collaborate with peers to exchange ideas and information for the common good and for collective learning. From the ease of using social media in sharing learning resource information, interacting, collaborating, and discussing, then, of course, collaborative learning outside the classroom can be realized. (Cole et al., 2017) All platforms can support collaborative learning, and it is reinforced by (Ansari & Khan, 2020) that social media helps in collaborative learning.

(Al-Rahmi et al., 2018) Collaborative learning with social media has an effective impact on student engagement and learning performance. It is a positive relationship to create a safe learning community where students and teachers can collaborate (Akman & Turhan, 2017). (Ansari & Khan, 2020) Social media collaborative learning shows a direct influence on student interaction with teachers. Likewise, the interaction between students, (Awidi et al., 2019) that peer discussion of a subject facilitates collaboration and engagement, and (Stathopoulou et al., 2019) enhances collaboration among students in their various projects. The fact is (Alalwan et al., 2019) that social media supports student interaction and engagement effectively for collaborative learning and affects student academic performance.

However, several studies also found problems related to the use of social media for collaborative learning, such as: (Cole et al., 2017) Student interaction is still hampered in open communication because they keep different group interactions secret. (Chan & Pow, 2020) Facilitating with social annotation tools alone cannot fully meet the learning needs of students' Collaborative Inquiry Learning. Then, other recent studies still show that there is an insignificant and negative relationship between student interaction and the use of social media in collaborative learning (Al-Rahmi et al., 2020), as well as student-teacher interaction (Cao & Tian, 2020).

Therefore, it is necessary to have good planning, management, and strategies in the use of social media to support collaborative learning, so as to achieve the goals and needs of students' online learning. Several studies recommend the use of social media for learning such as: (Molinillo et al., 2018) The need for good management to increase learning participation more actively towards collaborative learning based on social media. (Luo et al., 2020) The need to experiment with the design of the framework for use with different social media platforms, or the development of a model designed specifically for a particular social media platform.

We focus on using Facebook and WhatsApp to support collaborative learning. Where the use of Facebook focuses on presenting various forms of content as a learning resource (Aleksandrova & Parusheva, 2019; Chugh & Ruhi, 2018), and WhatsApp will focus on using discussion forums and communication between students in small groups and interaction with teachers either through text chats or video calls (Kapasias et al., 2020; Manca, 2020; Rosenberg & Asterhan, 2018; So, 2016). Then the use of social media such as Facebook and WhatsApp allows collaborative learning on distance learning.

Therefore, we present the activity model proposed and used in collaborative learning using social media Facebook and Whatsapp, as shown in Figures 2 and 3 below.

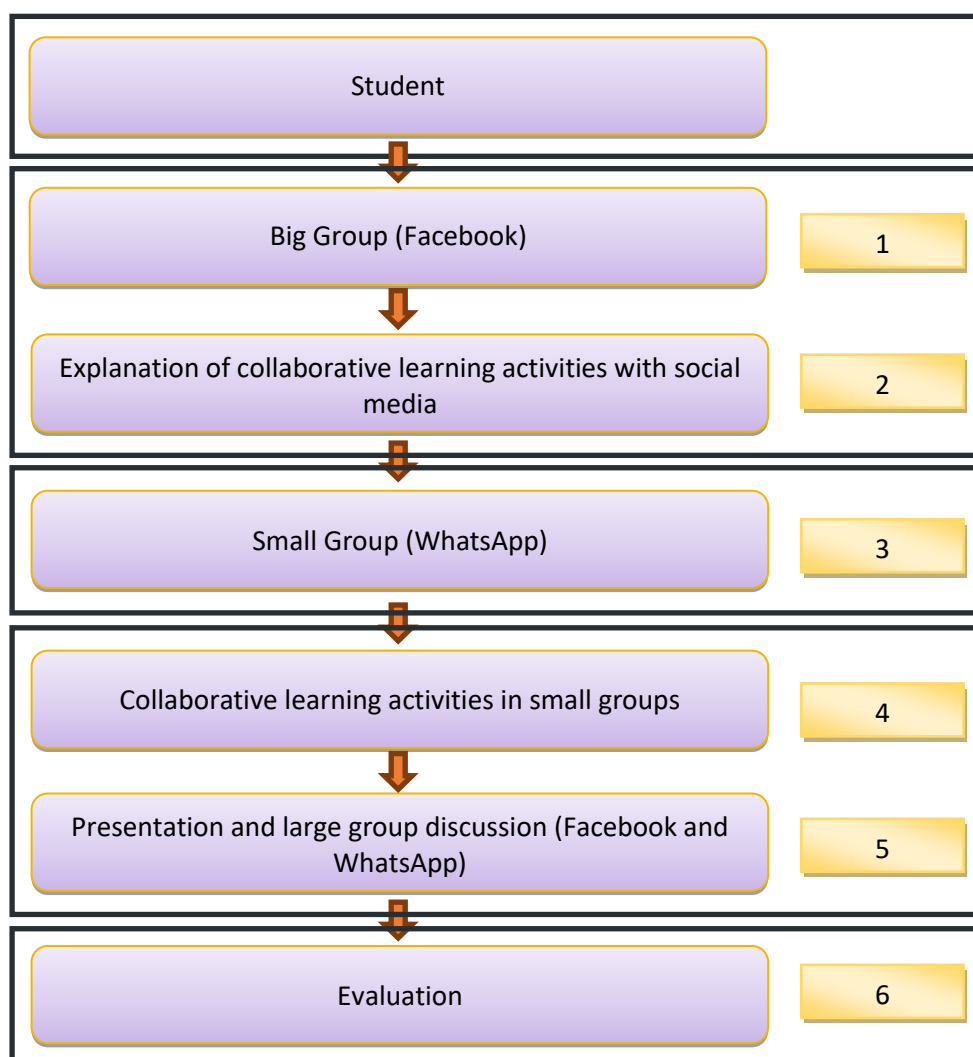


Figure 2. Collaborative Learning Activity Model with Social Media

The steps for collaborative learning activities with Facebook and WhatsApp are as follows:

1. Create a big group on the Facebook group;
2. Explanation of collaborative learning activities with social media, including task plans that students must do;
3. Create a small group in the WhatsApp group;
4. Learning activities in small groups with chat or video calls can be done using Case-Based Learning, Problem Based Learning, or other approaches;
5. Presentations and group discussions, by sharing presentation documents on Facebook groups and group discussions via video calls on the WhatsApp Messenger forum application;
6. Doing an assessment.

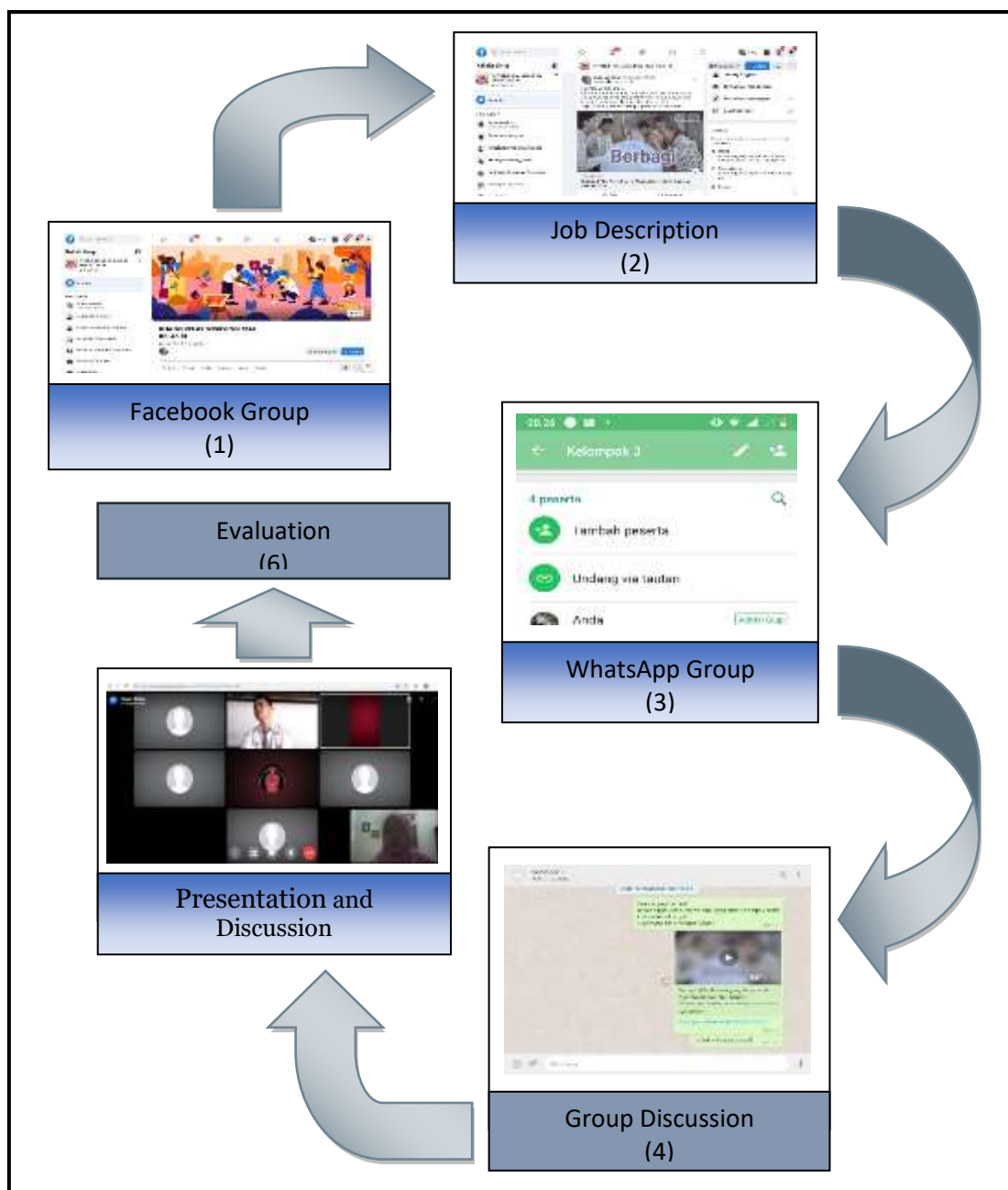


Figure 3. Collaborative learning activities

4. CONCLUSION

Social media supports learning and is accepted by students. So that it can be used for distance learning, especially when teachers and students are at home, not doing face-to-face learning during the COVID-19 pandemic. Social media becomes a connecting tool between students and students, students and teachers in distance learning. This is because social media such as Facebook and WhatsApp are popular and easy to use by students, so they can support learning effectively. They can interact,

communicate, share information, discuss and collaborate, during online learning that can be done anytime and anywhere. Learning using social media also supports collaborative learning between group members of students in their various learning project activities.

However, there are challenges regarding the use of social media for collaborative learning that is effective and can support the success of learning objectives. Therefore, of course, it is necessary to design a framework, strategy, or learning model that is in line with the goal of building a collaborative learning network that is carried out online.

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