Proceeding The 2nd ICHELSS, August 24-25, 2022, Jakarta, Indonesia

ISBN: 978-623-92475-1-5
ISSN: 2963-1351

How Does a Virtual Learning Community Learn? A Lesson Learned from Komunitas Guru Belajar in Indonesia

Anggun Nadia Fatimah
Program Studi Hubungan Masyarakat dan Komunikasi Digital, Universitas Negeri Jakarta, Indonesia

Abstract: *Although the virtual learning community is no longer a new phenomenon, research about it is limited in number. In the last two decades, researchers tend to focus on several topics like digital learning satisfaction, experience, and outcome. The virtual learning community itself as a phenomenon is rarely explored. Like the other types of virtual communities, each virtual learning community has a specific mechanism to connect, learn, and evolve. This special practice is interesting to be learned about. This paper aims to explore and understand the learning mechanism in the virtual learning activity of Komunitas Guru Belajar (KGB), one of the hybrid learning communities in Indonesia. This study applies a qualitative research method with in-depth interviews to dig into the phenomenon and provide a lesson learned. Data are analyzed and coded into four themes utilizing thematic analysis, assisted with Nvivo 12 software. Source triangulation is applied to ensure the quality of the result. The result of the study shows that the community culture of KGB is reflected through four major themes: membership, e-learning activity, e-learning motivation, and e-learning obstacles. KGB membership is relatively open with three different roles of members, consisting of the administrator, the activator, and the regular member. E-learning activity is divided into scheduled and unscheduled activities. Some common reasons that motivate people to join the community are the easy access to information, the need to learn and share, time and place flexibility, the reach, and the applicability of the shared knowledge. While the obstacles are commonly described as the digital divide both in terms of socioeconomic background and technological support in different areas, information delay, individual problems, difficulty in articulating ideas through written words, and difficulty in finding a discussion topic.*

Keywords: *e-learning, Komunitas Guru Belajar, learner experience virtual community, virtual learning community*

Introduction

The growing number of features and ability of information and communication technology (ICT) has been all along supporting the growth of virtual community. In educational world, the existence ICT and virtual community make the online learning possible to take place. E-learning become an appropriate option to gain knowledge, enhance social relations, máster a new skill, get a degree, consult with expert, and build a learning community.

There are two different kind of e-learning based on the use of instructional design: formal and informal type of e-learning (Yilmaz, 2012). Informal e-learning type, structured

ISBN: 978-623-92475-1-5
ISSN: 2963-1351

instructional design is applied. Virtual learning environment with specific rules of membership, duration, payment, learning evidence, and sequence like Khan Academy, Coursera, FutureLearn, Udemy, and other institutional based Learning Management Systems can be categorized into this type. On the other hand, informal e-learning type is much more flexible. The learning process and materials can even be delivered via social media such as instant messaging applications, email, forum, wiki, blog, web conference, and social networking sites (Jong et al., 2014). The flexibility is not limited to the choice of platforms, but also can be seen in the learning activity. In informal learning type setting, learners can join the process both synchronous and asynchronous; make, join, or leave group; manage their own learning materials by utilizing the archive or save button; react or reply to posts with emoticons, texts, sounds, videos, or stickers; and share the materials and informations to the other users in or outside their virtual learning community (Baker et al., 2013; Fatimah, 2020; Fatimah & Salamah, 2020; Lee et al., 2014). This help the learning process becoming more learner centric, which give the learners more choices and freedom in managing their e-learning experience (Deng & Tavares, 2013; Fatimah, 2020; Fatimah & Irwansyah, 2020; Fatimah & Salamah, 2020).

Responding to the growth of the use of ICT in education, many researchers have been deploy their time to study on topics like e-learning, digital experience, virtual community, online interaction, mobile learning, and e-learning satisfaction emerged from time to time. However, research on virtual learning communities as one of the many kinds of virtual communities that exist in the virtual world is still limited in number, especially in Indonesia (Fatimah & Salamah, 2020).

Just like other virtual communities, each virtual learning community has their own organizational culture including social connectivity and learning mechanism (Fatimah & Salamah, 2020). This different mechanism underlines the different impacts for each community. This study is developed to explore and understand the specific learning and interaction mechanisme of Komunitas Guru Belajar (teacher learning community), a hybrid educational community in Indonesia. This community is chosen because of three reasons. First, this community implements a hybrid method with online learning emphases before the outbreak of Covid-19. Many programs were conducted online (Fatimah, 2020; Lestari, 2019), showing that this community has a special reason to use the online mechanism even though the offline learning option is still available to conduct. Second, this community is considered as one of Indonesian best-practice of teachers' professional learning communities with a high impact shown by the number of members, the reach of their influence (Lestari, 2019; Mayangsari & Hernawati, 2018) as well as the rapid growth of the community (Prawitasari & Suharto, 2020). Third, the low number of massive and connected learning movements makes any effort to increase teachers performance become important to learn and evaluate (Lestari, 2019). To achieve the aim of the study, the research question is formulated as "*how does Komunitas Guru Belajar as a virtual learning community learn?"*

Literature Review

Virtual Learning Community

The concept of virtual learning community cannot be separated from the original term of virtual community, attributed to Howard Rheingold. Rheingold defined virtual community as "social aggregations that emerge from the network when there is an adequate number of people that initiate public discussions during enough time and with the sufficient human emotion to create relational nets of people in cyberspace," (Rheingold, 1993, 2000). It is a self-defined electronic

ISBN: 978-623-92475-1-5
ISSN: 2963-1351

network of interactive communication organized around a shared interest or purpose, led by some protocols or shared norms, supported or mediated by a complex system of information and communication technology (ICT) that can be manifested synchronously, asynchronously, or in hybrid manner (Agostini & Mechant, 2019; Castells, 2000). In virtual community people can group together, exchange ideas, perform set of activities and collaborative actions to enhance their daily life experience, such as meeting, chatting, interacting, sharing, and affecting each other as the foundation of social relation development (Dover & Kelman, 2018; Powers, 1997).

Reflecting upon those concepts, a virtual learning community can be understood as a variant of virtual community. It is developed to provide members with educational materials delivered in more enjoyable, interactive, learner-centered, open, and personalized learning process (Rodrigues et al., 2019). This specific environment exists to facilitate the members to perform knowledge sharing activity in a collaborative manner (Caro-Alvaro et al., 2015; Wegener & Leimeister, 2012; Yang, 2006). The advantage of a VLC is that it is able to generate collective knowledge through dialogue and the interconnection of its members in a combination of virtual and face-to-face work and by the use of social networks to foster communication (Garc´ıa-Garc´ıa et al., 2017).

Several pieces of research have been conducted to explore this topic. In their study, Garcia-Garcia, et.al., (2017) find that a virtual learning community can be used as a collaborative learning space where a large group of people can generate a graphic design with a satisfactory level of creativity starting from an almost complete lack of knowledge about the discipline. This research emphasizes that virtual learning communities are relevant for collective knowledge acquisition, therefore can be a good alternative to be integrated into educational design, especially in higher education. However, this research highlighted that it is still hard to ensure that all the members of this virtual learning community can achieve the same level of knowledge.

Strunga (2015) finds that virtual learning communities could be integrated to larger knowledge management models, such as educational curriculum. In his study, this type of learning community is relevant for eMentorship and eInternship program due to the flexibility of time, space, and work flow. Mobile devices make the learning process become closer to the daily life. However, this study noted that this flexibility could not guarantee the students success. University needs to establish a good relationship with professional association and organization that can provide qualified experts and mentors. The importance of developing virtual curriculum relevant to the needs of the students is also underlined (Strunga, 2015).

Another study finds that mobile instant messaging can be use in facilitating a mobile learning process. The community they observed is a virtual learning community that communicate mainly via WhatsApp application. This community established a set of rules enabling them to run some synchronous discussion session through WhatsApp. The virtual learning process was perceived as flexible, time efficient, less formal, adjustable, informative, helpful, and accessible. However, there are also some challenges limiting the process, such as device dependency, low sense of belonging, and focus distraction (Fatimah & Salamah, 2020).

Methodology

This study was conducted under the constructivist paradigm in order to reveal the uniqueness of people's everyday experiences and how they draw a meaning of it (Creswell & Cresswel, 2018). A qualitative approach (Denzin & Lincoln, 2018) was implemented to understand how virtual learning environment occurred as a social phenomenon and therefore constructing the social reality (Neuman, 2011).

Using semi structured in-depth interview, data were collected from a total 9 informants, selected purposively. Data were gathered during the reasearch process, which is around 2019-

ISBN: 978-623-92475-1-5
ISSN: 2963-1351

2020. To ensure the credibility of data, source triangulation was applide. All informants are members of the community with several background variations such as gender, age, profession, region, and the first time they join the community. List of informants can be seen in Table 1.

Table 1.
Informant Profile

Initial	Gender	Age	Profession	Region	Joining Year	Duration of Interview
AL	F	34	Elementary teacher	Jombang	2017	00:55:04
SH	M	39	Law lecturer	Binjai	2019	01:09:14
DMI	F	26	Vocational school teacher	Kediri	2016	01:25:32
SM	M	39	Teacher	Jeneponto	2019	00:43:35
AW	M	36	NGO officer	South Jakarta	2017	01:13:19
SR	M	43	Elementary teacher	Cimahi	2016	00:45:03
ATP	F	40	Junior high school vice headmaster	Makassar	2017	00:51:52
STY	F	26	Private tutor	Kediri	2018	01:01:52
TK	F	41	Elementary teacher	Sanggau	2015	01:51:24

The interview was conducted via telephone (Babbie, 2010) to manage the geographical barriers. Assisted by Nvivo 12, data were organized into themes to be further analyzed with thematic analysis (Clarke & Braun, 2017). There are seven major questions listed to guide the interview as shown in Table 2. However, due to the nature of semi structured interview, these seven questions can be expanded following the dynamic of the interview process.

Table 2.
Questions for Semi-Structured Interview

No.	Questions
1.	What is your motivation in joining KGB?
2.	What kind of topics are usually discussed in KGB e-learning sessions?
3.	What kind of applications are usually used to facilitate the e-learning process?
4.	How often you access the e-learning application(s) optimized in KGB?
5.	What is the application you access the most in KGB e-learning process?
6.	How do you participate in the e-learning process? Are you there as an observer, engage in discussion, or as an active contributor that delivers the learning materials?
7.	Is there any challenges you face during your participation in this virtual learning community?

Findings & Discussion

As a virtual learning community, KGB has their own organizational culture. Result of the study is organized into four major themes developed upon the answers of the expanded questions. The four themes are 1) membership, 2) e-learning activity in KGB, 3) e-learning motivation, and 4) the obstacles in e-learning process in KGB. The first theme explains about the membership or registration mechanism, the type of membership, and different participation forms. The second theme represents all findings related to learning mechanism, type of e-learning in KGB, application used to facilitate the e-learning process, and the topic explored in their virtual learning process. While the third and the fourth themes explain the finding related to why the informants agree to join the community and participate in their e-learning process and all the obstacles occurred during the process.

1. Membership

KGB was first begun their practice in 2015 as a learning community for teachers in Indonesia (Prawitasari & Suharto, 2020) It was established by Kampus Guru Cikal (KGC) to facilitate the needs of teachers to discuss and share their knowledge (Kampus Guru Cikal,

ISBN: 978-623-92475-1-5
ISSN: 2963-1351

2018). It used a hybrid learning method that combines offline and online learning activities (Lestari, 2019).

In their e-learning practice, KGB has three programs running virtually. Those are Temu Pendidik Mingguan (TPM, *teachers' weekly meeting*), Temu Pendidik Daerah Daring (TPD Daring, *regional teachers' online meeting*), and Temu Pendidik Spesial (TPS, *teachers' special meeting*). As a community, KGB also maintain their online presence through social media like Facebook, YouTube, Blog, and Instagram. Aside from promotional intention, these social media platforms are also activated as a place for knowledge sharing. That is why, in this virtual learning community, e-learning can take place in many forms: both synchronous via discussion sessions, and asynchronous by accessing learning materials posted in their social media channels.

Since October 2019, this informal community transforms from a community into a professional association. This change affects the organizational structure and the registration mechanism. Those who want to be a part of this professional learning community should fill out an online database. This regulation is applied not only for the new members, but also to those who already join the community before the transformation. However, some old members have not fully registered themselves. In their virtual practice, this regulation impacts the membership mechanism. Registered members are separated from unregistered ones and gathered in a new group chat. Although learning materials from online discussions are still delivered to both groups, main discussion take place in the new group to encourage the transition.

Members participation in KGB can be categorized into three types: manajerial/administrators, activators, and regular members. Managerial teams are those who run the daily routine of the organizations. It is include all the crew members, the boards, and administrators. It is devided into central management officers and regional management officers. There are only 13 persons in the central, assisted by many regional management/administrators across Indonesia. Activators refers to members who are actively contribute in their region. Every managerial officer is an activator, but not every activator is a managerial officer. Managerial officers and activators work together to optimized their regional learning activities, both online and offline. Everyone can apply to be these two kinds of member.

On the other hand, regular member is not always actively contribute in the learning process. Some regular members are registered in the database, but choose to observe the discussion passively. Members can join more than one regional group discussion. Since different region can raise different topic, all types of members are allowed to join the group chat of different regions. AL for example, is an administrator in Jombang region. However, she also joins in some other regional group chats, such as Malang, Klaten, Lamongan, and Maninjau. *"We join via group link (WhatsApp or Telegram)… every region has different topics, joining more than one help us to learn not only the materials, but also how they organize their learning program. After discussion, we are free to choose whether to stay or to leave the group,"* (SH, 2020).

Some members join the community following their friends or relatives. AL, SH, and STY for example, agree to register after getting some recommendation from their social circle. DMI and SR join after knowing this community from their social media pages. SM and ATP engage in KGB offline program before joining the online group chat. While TK seek to join the community after seeing a television program covering the story of this virtual learning community.

2. E-learning Activity

ISBN: 978-623-92475-1-5
ISSN: 2963-1351

There are two kinds of e-learning activities in KGB, which are scheduled and unscheduled activity. Scheduled activity refers to online discussion socialized publicly through social media, such as TPM, TPS, and TPD Daring. In the beginning, online discussions take place in instant messaging applications like WhatsApp and Telegram. However, following the information and communication technology (ICT) development as well as the literation improvement of the members, some discussions are also facilitated through video streaming applications like YouTube and YouTube Live, or video conference applications like Zoom and Google Meet.

Figure I
Examples of online discussion pamphlets circulating in social media channels

All scheduled activities use the same mechanism, which is inviting a learning instructor/spokeperson, lead by a moderator, limited in time, have a specific topic, and held via a specific application. The role of an instructor is to present a learning material and handle the following questions. He/she can be invited from inside or outside the community or region. There is no permanent instructor. Instructor who is not a community member can freely choose to stay or leave the chat group after the session. *"Many of the external instructors choose to stay and become a region member,"* (AL, 2020).

A moderator organized the discussion. He/she establishes the rules, usually about the time limit, the QnA session, forbid participant from posting comments/posts while the instructor is presenting, choose the question, and ensure that every selected question has already been aswered. Discussion themes usually derrived from the national yearly topic. In national level, managerial team set a specific issue to be explored throughout the year, such as building a humanize relationship, literation in supporting nation, and technology enhanced learning. Regional themes can be aligned with the national issue or decided based on what regional participants needed. Sometimes the regional group chat makes a voting session or virtual brainstorming to decide the themes.

> *"In the regional (KGB) we usually vote, where do the needs go. There is something we get from hits topic like bullying. There are those who need to know more about positive discipline. We also give them learning materials about Independent Learning topic, because for us it is the basic. When we post a learning material or run a discussion, members post their reactions and comments. Observing their response gives us a glimpse of what in their mind, what they need, what we need to explore deeper, and so on. And this becomes the basis of the next theme we discuss in our online meeting,"* (DMI, 2020).

Different application is used according to the different needs and regional resources. Telegram for example, is usually chosen to facilitate a national discussion with thousands of

ISBN: 978-623-92475-1-5
ISSN: 2963-1351

participants. WhatsApp on the other hand, is usually optimized for smaller discussion. If there is a session attracting more than the group chat capacity, regional management and activators can open more WhatsApp group. YouTube live is usually used to facilitate an audio visual interaction.

In their e-learning activities, flexibility is something important for KGB. Every region can implement different procedures in scheduling their online session, choosing the themes and platforms, manage their discussion, and so on. Members are also free to choose any discussion they want to follow, both synchronously or assynchronously. Because there are many regions across Indonesia, the schedules can be overlapped. *"Sometimes we have the online meeting schedule. Online discussions can be held by three different regions at once. If we want to join it, we can open the group consecutively. If we don't have enough time to follow a discussion, we can pause and scroll up when we have more time,"* (AL, 2020).

Not only flexible in time, spaces, and platforms, learning flexibility also manifest in the various form of learning activities. Members can participate both as a passive observer and as an active contributor (instructor, moderator, administrator) who shares his/her good practices, experiences, opinions, and/or give feedback to other learners. Several common activities are following the discussion, joining online expert sharing, creating/sharing/distributing learning materials, reading blog/website/social media posts, and dowloading the community's educational newsletter. There is no minimum requirement of the total time spend to access the materials. Members are free to or not to access learning materials and program. That is why the frequency of access differs from 1-3 weekly access to more than 7 times accessing the materials and/or pages in a week. This freedom ensures the learners to manage their own learning process and adjust it according to their situation and needs.

Besides the scheduled activity, learners in this virtual learning community are also benefited from the unscheduled e-learning activity. They can learn when they are scrolling up the previous discussion or accessing the learning materials via website and/or social media. The user-generated content character of social media allows the member to participate in creating and distributing learning contents. This becomes one of the most important values for KGB, where everyone is seen as both a learner and a teacher. *"This maintain the condusiveness of the situation, since everyone can contribute something. The concept is more about sharing, not lecturing,"* (SR, 2020).

Figure II
Examples of learning materials posted in Facebook (left) and Blog (right)

This mechanism allows every member to perform more than one role. They are the learners, a moderator or instructor for certain session. They can share their good practices via video, written materials, pictures, infographics, voice notes, or the combinations. They can

ISBN: 978-623-92475-1-5
ISSN: 2963-1351

respond to the instructor, share their experience, ask questions, give a case study, or even propose solution to the other learners in the group. In KGB, Telegram, WhatsApp, and YouTube Live are mostly used for online discussion, Facebook is most likely used to spread the good practices, while Instagram is used to reach and attract younger generation who concern about education.

Due to the flexibility of learning process, some members initiate the forming of the special interest groups. Members who are interested in learning design and visual interpretation form a new group. There are also groups for digital marketing strategy and book publishing. This flexible interaction comes from the consistent effort to live up the daily discussion. In this context, the role of activators become prominent. In a quiet day when there is no scheduled discussion, an activator usually starts the conversation by greeting the members and delivering a simple yet open ended question, for example, *"good morning teachers… how are you today… any stories from your class today…?"* (AW, 2020). This simple question triggers the discussion. *"Sometimes they talk about their challenges in developing the skills of their students, like 'I did this and this, but the headmaster didn't support it'. We listen to their problems and carefully accompany them to create a solution,"* (DMI, 2020). It is important to pay attention to the timing, *"in the morning they go to school and reach back to their home around 3 pm. So, if we want to start the discussion, it should be around the evening,"* (AW, 2020). An activator thus becomes an observer who wants to know the characters of their members.

Just like the offline community, KGB as a virtual learning community requests the implementation of ethics. Digital ethics are used to ensure the quality of online interaction. There are some kinds of materials that cannot be posted in the group, such as unverified data/news. Only educational content supported by adequate data or references are allowed to be posted. Those who violate the regulation usually get some warning not only from the administrator or the activators, but also from other members as a social penalty.

3. Motivation in Joining e-learning Program

Every learner has their personal motive in joining a program or choosing a learning community. The result of this study finds several common reasons underlining members' motivation to join. Those are the easy access of information, the need to increase and spread knowledge, time, space, and reach flexibility, and the applicability of the discussed topics.

Easy access to information refers to the availability of the learning materials. E-learning mechanism in KGB supported by the features of the chosen application, allows the learners to access information even after online discussion ends. *"As long as we join the group chat, even if we are late or cannot attend a synchronous discussion, we can still read the thread some days later,"* (AL, 2020). This flexibility cannot be found in a traditional offline activity where the instructor uses verbal approach to present the materials. An offline meeting can only be 'replayed and rewatched' when recorded digitally.

The sharing activity help the learner grow their knowledge and interest in educational field. Every member has different experience to share that can inspire others to implement relatable solutions. STY, a private tutor shares her experience with the students in her chat group. Students come from different backgrounds and perform different behaviours. She is confused looking for the solution. *"When I share this story in WhatsApp group, I received much feedbacks from other members. They suggest me to try 'this and this' and that inspires me to try different methods in approaching my students,"* (STY, 2020).

The flexibility of e-learning methods offer the learners with more freedom in deciding the time to learn and the place to access the information. There is no need to conduct face to face meeting in every discussion session. *"I like the wide reach and flexibility. I can post anytime I want to share something. No need to meet directly, and no need to set a specific*

ISBN: 978-623-92475-1-5
ISSN: 2963-1351

schedule to learn," (SR, 2020). All these factors contribute in creating the enjoyable learning process,

> *"KGB is simple. The knowledges are applicable, something that we do need in our class. We don't need to think that hard to understand the materials, since some of them are based on practical situations. Members share their good practices and that helps to fulfil my needs. That is why I feel comfortable learning in this digital athmosphere,"* (TK, 2020).

4. E-learning Obstacles

Based on informants' explanations, there are eight common obstacles faced by the members in their e-learning experience in KGB. Those are 1) the limited condition of infrastucture in several regions, 2) information delay, 3) background heterogenity, 4) generation gap, 5) distractions, 6) personal situations, 7) problem in articulating written ideas, and 8) choosing the theme for online discussions.

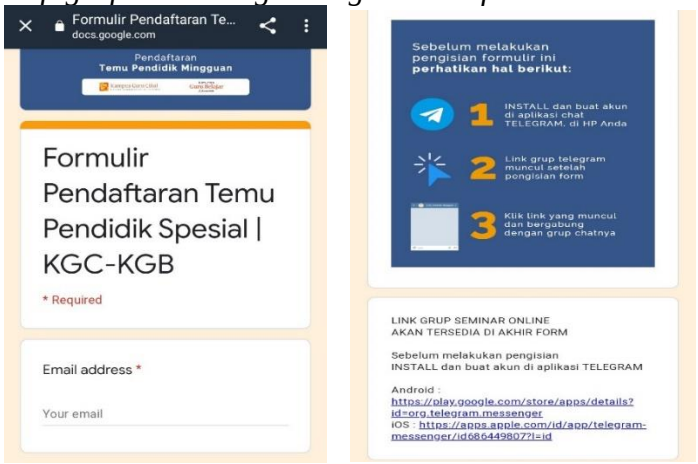
Digital devide or the inequality of infrastructure support especially in underdeveloped areas is the root cause of the low signal problems. In Sanggau and Kotawaringin Barat, a moderator sometimes asks for back up to other activators or administrative members from different regions. Signal instability get even worse whenever the rain comes. *"Sometimes the instructor from that area is missing (from the group chat) or being late in reply. That time, we assume that there is a signal problem around the area,"* (DMI, 2020).

Information delay manifests in two different forms: the pause when typing the reply and the delay in reading or following the discussion due to the rush activity. Besides that, underdeveloped regions often experience delay in receiving the message. *"it takes time to type the answer. But in this area (Sanggau), even receiving messages is time consuming. Telegram in here is the most difficult one, the loading time is very long,"* (TK, 2020).

Members come from different social economic background. Those with lower economic resources get lost during some discussion because they are running out the internet quota. *"Today information is like a food for the body. When the quota runs out, I get panick looking for refilling. I lost much information especially if my quota runs out before I get my salary and have no money,"* (SH, 2020). Internet quota is one thing, but the challenge for not having proper devices to support the e-learning process is another thing to count. *"Some members do not have laptops or even smartphones. They want to learn but what should they do if they don't even have the devices…?"* (SM, 2020).

Figure III

Example of attached infographic in a digital registration form



Another obstacle is the generation gap. e-learning activity requires a certain degree of digital literacy. For some baby boomers, it is still hard to navigate themselves in digital

ISBN: 978-623-92475-1-5
ISSN: 2963-1351

athmosphere. *"They are digital immigrants, I need to patiently guiding them in using certain applications,"* (AW, 2020). In other cases, teachers do not even have an email, *"they don't have emails and don't know how to send it,"* (TK, 2020). To solve this problem, step by step instructions are delivered in group chats along with infographic visualization of a certain process like registration to join a virtual discussion as shown in figure 3.

Distracted concentration is commonly experienced by the members. This happen especially when the members is not presenting as instructor or moderator. Pop up notification when using smartphone is reported to be one of the sources of distraction. Another obstacle is about the writing skills. Not all members are convenient enough to convey their ideas through written words. TK (2020) said that sometimes it is hard to pick an appropriate word. This prevent or limit her from encoding the message properly and can further cause misunderstanding of information. The last obstacle is in deciding the online discussion topics. Members come with various needs and motives. When they voice their expectations, the administrators and activators should pick which theme shall be released when and postpone the other requests.

Discussion

Based on what people do in it, there are four main purposes of virtual community. Those four purposes are to perform discussion, to complete a specific goal, to build a virtual environment, and to perform a hybrid community that blends all the previous three purposes. Looking deeper at how members of KGB interact each other and how they perform their learning process, the virtual learning community of KGB is most likely a hybrid community. In this athmosphere, members group themselves to engage in discussions, reaching their personal learning goals, and socialize in the designated virtual environment.

This phenomenon cannot be separated from the development of ICT infrastructures and features. A virtual learning community can never exist without the support of internet and electronic devices. Here, people collaborate to achieve special learning purpose (Yang, 2006), interact, gather, or share their knowledge (Wegener & Leimeister, 2012). E-learning mechanism in KGB does not apply a rigid instructional design. That is why according to Yilmaz (2012), this activity can be classified as informal e-learning type. In this informal type of e-learning, flexibility is a vital thing. It allows the learners to take as many benefits as they can.

This flexibility is expanded by the help of media social and mobile instant messaging applications in their learning process. In KGB, many types of social media are optimized to provide a better learning experience. Mobile instant messaging applications like WhatsApp and Telegram are used as the main discussion room. Friendship networking applications like Facebook and Instagram are used for promotional and socialization purpose, as well as a place for secondary discussion forum. Blog and website are used to post the information room and update the latest news of the community. Video streaming like YouTube and video conference application like Zoom are used to facilitated virtual meeting. Learners can access learning materials through social media even though they have not been registered as community members.

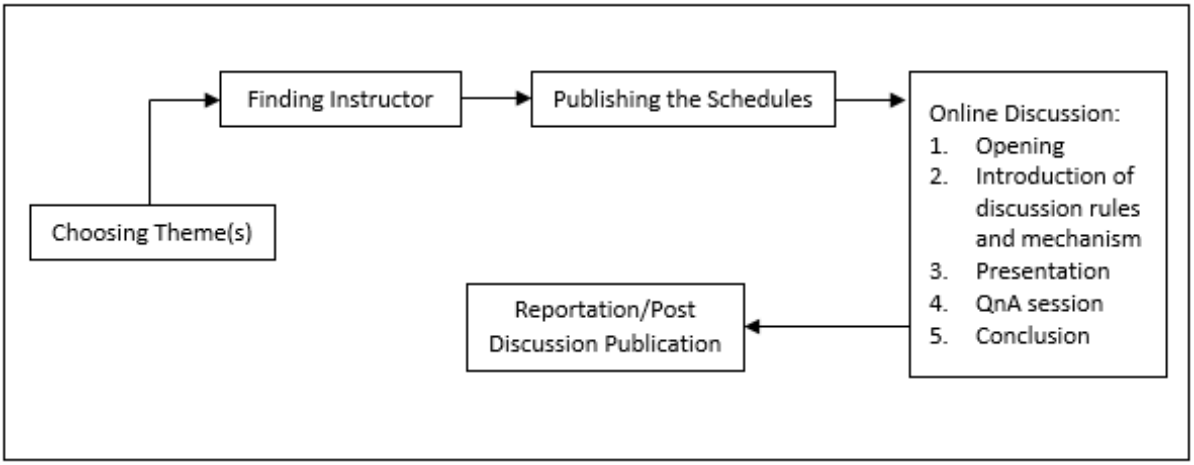
This practice emphasizes the existence of KGB as a virtual learning community that holds the technological based collaboration as their foundation of practice. Time and geographical boundaries are no longer a significant barrier to learning (Yang, 2006). The existence of KGB also strengthen the notion that a transformative and independent learning process can be held virtually (Blayone et al., 2017), with the help of social media (Jong et al., 2014; Korucu & Atun, 2017), that give positive influence to the fulfilment of learning purposes and learning commitment of the learners (Chickering & Gamson, 1989). In KGB, the optimization of social media as learning environment is considered to be relevant for some

ISBN: 978-623-92475-1-5
ISSN: 2963-1351

reasons. It is easy to use, free of charge, accessible for people from different background, and familiar to the daily life. This confirms the finding of the previous research that stated that social media and mobile instant messaging are relevant to be used in learning (Korucu & Atun, 2017; Fatimah & Salamah, 2020).

Among the many alternatives provide by KGB, online discussion in mobile instant messaging application stated as the most preferrable learning mechanism. This also aligns with the popularity of WhatsApp usage in Indonesia and in the world (Hootsuite & Social, 2019). WhatsApp is considered more user friendly, therefore can be optimized to reach wider audiences. While Telegram is more benefited to accommodate larger number of participants. This preference is also related to the routinity of online discussion established by the community. Different from the unscheduled posting activities in other social media platforms, mobile instant messaging applications are used regularly. There is also evidence stated that the administrators and activators strive their best to activate informal discussion every day. Although some variants may be found, the general mechanism of KGB's online discussion flow can be described in Figure IV.

Figure IV
KGB's online discussion flow

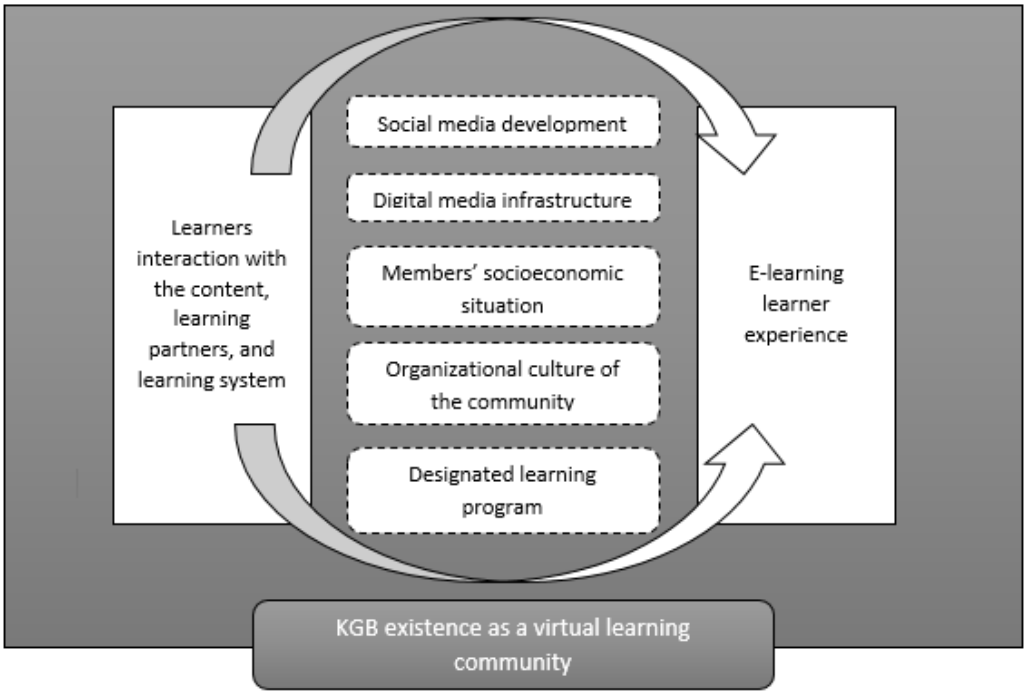


The use of social media and mobile instant messaging in e-learning process in KGB shows two aspects. First, it strengthens the notion that social media and mobile instant messaging can be used in e-learning when supported by a proper and shared learning mechanism. Second, it implies the relation between technological choice and the organizational culture. The flexibility of social media and mobile instant messaging is compatible with the egalitarian, open, supportive, and learner-centric learning culture in KGB where individual uniqueness and diversity become the source of richness for e-learning experience. The awareness of geographical, technological, and literacy constrains raise the willingness to design appropriate yet widely accessible e-learning mechanism to accommodate all the gaps. The easy access, familiarity, and less expensive characters of the chosen media encourage more people to join and survive in this virtual learning community.

Another important note to discuss is that e-learning program requires an adequate support of web based digital system and service to enable the learning process (Rodrigues et al., 2019). However, to conduct and maintain relatively stable interaction that determines the existence of the virtual learning community, having a proper device and internet connection are not the sole aspects to be required. In the case of KGB e-learning process, there are five aspects that can be identified as the prerequisite aspects supporting the existence of the community as informed in Figure V.

ISBN: 978-623-92475-1-5
ISSN: 2963-1351

Figure V
E-learning prequisites in KGB



The five prequisite aspects are 1) social media features relevant for e-learning, 2) the availability and quality of digital media infrastructure, 3) the socioeconomic status that allows the members to have a proper access to digital devices and internet quota to join the learning process, 4) the shared understanding of organizational culture and values, and 5) the availability of the designated e-learning program. The fulfilment of these prequisites facilitate the implementation of mediated online interaction (Thompson, 2020) that serves as the basis of experience and knowledge formation in every members (Riveros, 2017) of this virtual learning community.

Conclusion

As a virtual learning community, KGB has their own specific organizational culture. This reflected in four different forms, which are the membership, the e-learning mechanism, the e-learning motivation, and the e-learning obstacles. This study describes how a virtual learning community conducts their interaction and learning process. The finding implies that virtual learning community is a good alternative to enhance knowledge and build a meaningful relationship among the members. However, certain set of regulation, code of ethics, organizational values, and role optimization are important to establish to ensure the vitality of this virtual community. Similar research should be conducted to describe the uniqueness of the learning process, the learner experience, and the learner satisfaction in more virtual learning communities.

References

Agostini, S., & Mechant, P. (2019). Towards a Definition of Virtual Community. *Signo y Pensamiento*, *38*(74). https://doi.org/https://doi.org/10.11144/Javeriana.syp38-74.tdvc

Babbie, E. R. (2010). The Practice of Social Research. In *Wadsworth Cengage Learning*.

ISBN: 978-623-92475-1-5
ISSN: 2963-1351

Wadsworth Cengage Learning. https://doi.org/10.2307/2062956

Baker, P. M. A., Bricout, J. C., Moon, N. W., Coughlan, B., & Pater, J. (2013). Communities of participation: A comparison of disability and aging identified groups on Facebook and LinkedIn. *Telematics and Informatics*, *30*(1), 22–34. https://doi.org/10.1016/j.tele.2012.03.004

Blayone, T. J. B., VanOostveen, R., Barber, W., DiGiuseppe, M., & Childs, E. (2017). Democratizing digital learning: theorizing the fully online learning community model. *International Journal of Educational Technology in Higher Education*, *14*(13). https://doi.org/10.1186/s41239-017-0051-4

Caro-Alvaro, S., Garcia-Cabot, A., Garcia-Lopez, E., De-Marcoz, L., & Martinez-Herraiz, J. (2015). Evaluating the usability of mobile instant messaging apps _on ios devices. *ICSEA 2015 : The Tenth International Conference on Software Engineering Advance*, 286–289.

Castells, M. (2000). The information age: economy, society and culture. In *The rise of the network society* (Vol. 1). Blackwell Publishing Ltd.

Chickering, A. W., & Gamson, Z. F. (1989). Seven principles for good practice in undergraduate education. *AAHE Bulletin*, *39*(7), 3–7. https://doi.org/10.1016/0307-4412(89)90094-0

Clarke, V., & Braun, V. (2017). Thematic analysis. *Journal of Positive Psychology*, *12*(3), 297–298. https://doi.org/10.1080/17439760.2016.1262613

Creswell, J., & Cresswel, J. D. (2018). Research and Design Qualitative, Quantitative and Mixed Methods Approaches. In *Thousand Oaks California*.

Deng, L., & Tavares, N. J. (2013). From Moodle to Facebook: Exploring students' motivation and experiences in online communities. *Computers and Education*, *68*, 167–176. https://doi.org/10.1016/j.compedu.2013.04.028

Denzin, N. K., & Lincoln, Y. S. (2018). The Sage Handbook of Qualitative Research 5th Edition. In *New York: SAGE Publications, Inc.* https://doi.org/10.1108/17465640610666642

Dover, Y., & Kelman, G. (2018). Emergence of online communities: Empirical evidence and theory. *PLoS ONE*, *13*(11). https://doi.org/https://doi.org/10.1371/journal.pone.0205167

Fatimah, A. N. (2020). *Learner Experience dalam Komunitas Belajar Virtual (Studi pada Aktivitas Pembelajaran Daring di Komunitas Guru Belajar)*. University of Indonesia.

Fatimah, A. N., & Irwansyah, I. (2020). Indonesian version of FASER LX scale to measure Learner Experience: A validation study. *E3S Web of Conferences 211*, 1–10. https://doi.org/https://doi.org/10.1051/e3sconf/202021101013

Fatimah, A. N., & Salamah, U. (2020). Mobile Instant Messaging for Mobile Learning Activity: Use of WhatsApp Group as Mobile Learning Platform in Anak Pintar Community. *Advances in Social Science, Education and Humanities Research*, 328–340.

Garc´ıa-Garc´ıa, C., Chulvi, V., & Royo, M. (2017). Knowledge generation for enhancing design creativity through co-creative Virtual Learning Communities. *Thinking Skills and Creativity*. https://doi.org/http://dx.doi.org/10.1016/j.tsc.2017.02.009

Harriman, G. (2010). *E-Learning Resources*. http://www.grayharriman.com/index.htm

Hootsuite, & Social, W. A. (2019). Digital 2019: Indonesia. In *Global Digital Insights*. https://doi.org/https://datareportal.com/reports/digital-2019-indonesia

Jong, B. S., Lai, C. H., Hsia, Y. T., Lin, T. W., & Liao, Y. S. (2014). An exploration of the potential educational value of Facebook. *Computers in Human Behavior*, *32*, 201–211. https://doi.org/10.1016/j.chb.2013.12.007

Kampus Guru Cikal. (2018). *Tentang Kami*. https://blog.kampusgurucikal.com/tentang-kami/

Korucu, A. T., & Atun, H. (2017). Use of Social Media in Online Learning. In P. Vu, S. Fredrickson, & C. Moore (Eds.), *Handbook of Research on Innovative Pedagogies and Technologies for Online Learning in Higher Education*. IGI Global.

ISBN: 978-623-92475-1-5
ISSN: 2963-1351

https://doi.org/0.4018/978-1-5225-1851-8.ch001

Lee, M. R., Yen, D. C., & Hsiao, C. Y. (2014). Understanding the perceived community value of Facebook users. *Computers in Human Behavior*, *35*, 350–358. https://doi.org/10.1016/j.chb.2014.03.018

Lestari, P. R. (2019). *Community of Practice in Indonesia and Its Impact on Teachers' Professional Development: Study Case of Komunitas Guru Belajar*. University of Glasgow.

Mayangsari, I. D., & Hernawati, E. (2018). Should Indonesian Women Teacher Become Activist? *Malaysian Journal of Social Sciences and Humanities*, *3*(5), 75–80.

Neuman, W. L. (2011). *Social Research Methods: Qualitative and Quantitative Approaches* (07 ed.). Allyn & Bacon.

Powers, M. J. (1997). *How to program a virtual community*. Ziff-Davis Press.

Prawitasari, B., & Suharto, N. (2020). The Role of Guru Penggerak (Organizer Teacher) in Komunitas Guru Belajar (Teacher Learning Community). *Advances in Social Science, Education and Humanities Research*, 86–89.

Rheingold, H. (1993). *The Virtual Community*. Addison-Wesley.

Rheingold, H. (2000). The Virtual Community. Homesteading on the Electronic Frontier (Revised Edition). In *MIT Press*. https://doi.org/10.1561/1500000001

Riveros, P. S. (2017). *Optimal learning experience design in blended learning*. https://www.repositorio.uc.cl/handle/11534/21605

Rodrigues, H., Almeida, F., Figueiredo, V., & Lopes, S. L. (2019). Tracking e-learning through published papers: A systematic review. *Computers and Education*, *136*, 87–98. https://doi.org/10.1016/j.compedu.2019.03.007

Strunga, A. (2015). The Integration of Virtual Learning Communities into Universities' Knowledge Management Models. *Procedia - Social and Behavioral Sciences*, *197*.

Thompson, J. B. (2020). Mediated Interaction in the Digital Age. *Theory, Culture and Society*, *37*(1), 3–28. https://doi.org/10.1177/0263276418808592

Wegener, R., & Leimeister, J. M. (2012). Virtual learning communities: Success factors and challenges. *International Journal of Technology Enhanced Learning*, *4*(6), 383–397. https://doi.org/10.1504/IJTEL.2012.051814

Yang, S. J. H. (2006). Context aware ubiquitous learning environments for peer-to-peer collaborative learning. *Educational Technology and Society*, *9*(1), 188–201.

Yilmaz, Y. (2012). Knowledge management in E-learning practices. *Turkish Online Journal of Educational Technology*, *11*(2), 150–155.

About the Author:

Chief Researcher
Anggun Nadia Fatimah *Universitas Negeri Jakarta, Indonesia*
Researcher Member