Implementation of Media Richness Theory in the Use of Microsoft Teams Applications

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Abstract

This journal article reviews the literature on the implementation of communication theory in the use of Microsoft Teams applications which aims to see the user's perspective in communicating through Microsoft's flagship application, Microsoft Teams. This study aims to determine the implementation of media richness theory in the use of Microsoft Teams applications. Which includes the experience of informants when using the Microsoft Teams application in their daily lives. This study uses qualitative research methods, using the theory of media richness which looks at the stages or the highest level of communication, namely directly (face-to-face). Data collection techniques using observation, interviews and documentation. Based on researcher interviews with informants, the Microsoft Teams application can be a media solution or media support for work productivity and education, especially in terms of interaction and communication with other users. However, Microsoft Teams also has some drawbacks that make this video conferencing application not equivalent to face-to-face communication.

I. Introduction

The increasingly rapid development of technology is currently affecting human life, as well as the pattern of development of people's behavior, especially in the use of technology. The world of education and the world of work is one of the most widely used technologies, in this case information technology, because information technology provides a process that is fast, precise, and produces a higher level of accuracy. In corporate and school environments, computers are indispensable tools to support data and information processing. The provision of fast and accurate information is very helpful for management to lead a company or school because it is not enough just to have the ability and mind to achieve an organizational goal.

Changes in communication technology that are very fast and global have provided significant changes. Therefore, communication technology is needed as a means to facilitate access to information. It can be said, the rapid development of communication technology is the impact caused by the human need for information itself. One of the tangible manifestations of the development of information is the creation of *video conferencing* which can change and facilitate communication between humans.

Currently, there are so many companies that set *Work From Home* for their employees, as well as various educational institutions that implement online learning. Online learning is a new way in the teaching and learning process that utilizes electronic devices, especially the internet in the delivery of learning. Online learning is completely dependent on internet network access. Online learning is a form of delivering conventional

17653

learning that is poured into digital format via the internet. Online learning is considered to be the only medium for conveying material between teachers and students during a pandemic emergency (Bariah, 2019).

Distance learning and the use of various online learning media are starting to spread in Indonesia. Including learning through the Merdeka Learning program – Merdeka Campus launched by Nadiem Makariem, Minister of Education and Culture (Mendikbud). The objective of the Merdeka Learning - Merdeka Campus policy, the program "right to learn three semesters outside the study program" is to improve the competence of graduates, both soft skills and hard skills, to be more prepared and relevant to the needs of the times, to prepare graduates as future leaders of the nation who excel. and personality.programs*Experiential learning with* flexible pathways are expected to facilitate students to develop their potential according to their passions and talents.

In the Merdeka Learning program - Merdeka Campus there are several programs in it, one of which is Independent Studies. Where this Independent Study is like independent learning to have specific competencies, then interact with experts to understand their application, and practice these competencies in a real project. In the Merdeka Campus programs, there are many corporate partners who work together to help students experience new learning and get to know the industrial world better. Some of these Merdeka Campus partners are implementing distance learning using applications that support them.

Almost all Merdeka Campus partners on average use *video conferencing* to support online learning. *Video conferencing* is considered as a communication technology innovation that allows two or more parties to interact with each other via a video connection even though they are separated by different locations and times. Therefore, this *video conference* is like a communication medium that is used as a channel to be able to deliver messages from the communicator to the communicant. In practice, there are several applications that are often used to conduct face-to-face meetings online, namely: *Zoom*, *Google Meet*, and *Microsoft Teams*.

The selection of this application is very important for smooth communication and information conveyed by the communicator to the communicant. Each of these three applications has its own advantages and disadvantages. Like the *Zoom* which has a free service, *Zoom* can accommodate 100 user limit duration. Google *Meet* is an application that is easy to use and integrated with other *Google* . Furthermore, there is a meeting developed by *Microsoft*, namely *Microsoft Teams*. The application that was released in 2017 is also an application that is widely used in Indonesia. The advantage of *Microsoft Teams* compared to similar applications is that it is integrated with other *Microsoft* such as *Microsoft Office*.
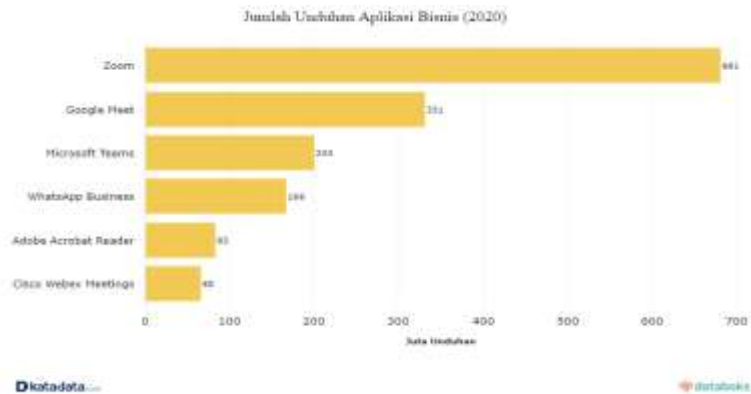
Figure 1. Graph of data sourced from SensorTower
(Source: https://databoks.katadata.co.id)

The graph of the data shows that there are business applications (*video conferencing*) that are most downloaded by users, the top three rankings are *Zoom, Google Meet* and *Microsoft Teams*.application *Zoom* was downloaded 681 million times and became the <u>application in</u> the business category with the largest number of downloads in 2020. The *Google Meet* followed in the next position with 331 million downloads, and the *Microsoft Teams* with 200 million downloads (Andrea Lidwina, 2021).

Figure 2.Microsoft Teams Ratings   *Figure 3. Zoom Rating*
(Source: Google Play Store)   *(Source: Google Play Store)*

Figure 3. *Google Meet Rating*
(Source: Google Play Store)

According to *the rating* on *the play store*, there are differences in user satisfaction among the three-video *conferencing* most downloadedThe first order is *Microsoft Teams* with *a rating* of 4.6, the second is *Zoom* with *a rating of* 4.4, and the third is *Google Meet* with *a rating of* 4.0. This indicates that the high number of downloads is not aligned with the app's user satisfaction rating. Based on *ratings* on the Google Play Store, it can be seen that *Microsoft Teams* is far superior in terms of user satisfaction.

In the Independent Study program in partnership with PT Microsoft Indonesia, students are taught to know and learn more about *Microsoft*. Based on the observations of Microsoft , information can be obtained that the application used as a communication medium is *Microsoft Teams*. This study will look at whether communication using the *Microsoft Teams* communication *face-to-face* can be equivalent or not.

II. Research Method

The method used in this study is a qualitative research method. Qualitative research method is a research method used to examine the condition of natural objects. The researcher acts as a key instrument and data collection techniques are carried out by triangulation (a combination of observation, interviews, documentation). The data obtained tend to be qualitative and the data analysis is inductive/qualitative and the research results are potential/problem findings, unique objects, processes and social interactions (Purwono, 2019:16).

In general, qualitative research methods are research that produces and processes descriptive data, such as interview transcripts, field notes, pictures, photos, video recordings, and so on. Qualitative research emphasizes that the researcher is the key instrument, meaning that the researcher collects data himself through documentation, behavioral observations, or interviews with the subjects.

Interviews are a way to find out certain situations in the classroom from another point of view. Interviews are defined as a way of collecting information materials which are carried out by asking questions orally, unilaterally, face to face directly and with a predetermined direction. In the process of collecting data in this study, researchers used a structured interview method.

This research was made based on the analysis of researchers when carrying out learning through the Independent Study program - Merdeka Campus in partnership with PT. Microsoft Indonesia which uses the Microsoft Teams in synchronous learning. This study uses a qualitative approach with a descriptive design. Data collection techniques are carried out by collecting in the form of information, interviews, and documentation.

III. Result and Discussion

All fields, both work and education, definitely need communication to convey information. But communicating information definitely needs a communication medium. This media can help someone to more easily and quickly convey information. *Microsoft* is here and creates products that fall into the category of communication media. Some *Microsoft* that are closely related to communication include *Microsoft Teams, Microsoft Delve, Yammer, and Skype for Business.* Among the four communication media from *Microsoft* , researchers chose *Microsoft Teams* to be studied as *video conferencing* the most common

Microsoft Teams is a platform that can support document sharing, *online*, and many more features that are very useful for communication in business. Having a great team space is key to being able to make creative decisions and communicate effectively with one another. *platform* This shared workspaceThe main features of *Microsoft Teams* are *chat*, audio calls (*call*), *meetings,* documents *(files), live events*.

Microsoft Teams provides convenience and flexibility in interacting and communicating, collaborating and can be installed according to the devices that are used. This is in line with the devices owned by these devices, namely the *Microsoft Teams* version *web browser*, the *desktop* version and the *mobile*. Each has different uses, for example, *Microsoft Teams* version *web browser* recommended for users who are new to the *Microsoft Teams*. The *desktop* is recommended for users who are going to implement virtual or online learning, making it easier to access the application. While the *mobile is recommended* for users who have high flexibility and need to stay connected with *Microsoft Teams*.

3.1 Features available in the Microsoft Teams

To get an effective communication process in using the *Microsoft Teams*, it is important to know what features are available in the application. From the results of the interview, the Technical Trainer and Modernization Sales Support said that:

> *"Everyone will have a different answer about features because it depends on their needs. However, for my needs, it is sufficient to carry out the work process using Microsoft Teams. I can communicate via chat with colleagues, can see the latest information on the channel, can learn using Viva Learning (a new feature), can see tasks with the Task by planner and to do features which can be used to control the work that must be prioritized or done first, and notifications that always go to the cellphone indicating that there must be a meeting every 15 minutes. I think Microsoft Teams is much richer in terms of features, and I've also personally compared them. From this comparison, it can be concluded that the features in Microsoft Teams are much richer or more than its competitors."*

3.2 The advantages of the Microsoft Teams

This study also discusses the use and implementation of new communication technologies as a communication platform in the workplace. During the interview, the informants were also invited to discuss the advantages of using the *Microsoft Teams*.

Based on the findings of interviews with informants, the *Microsoft Teams* has a number of advantages, such as (1) *Microsoft Teams* already includes *Microsoft 365*; (2) the video quality is much clearer; (3) the appearance *of Microsoft Teams* is more user friendly; (4) when the network is unstable, *Microsoft Teams* does not immediately exclude participants; (5) the recording results are directly stored in *Microsoft Teams*, as explained by the Technical Trainer and Modernization Sales Support:

> *"The advantage of Microsoft Teams is that it is in one package with Microsoft 365, and can be connected to other services, whether from Microsoft or not. And many companies are using Microsoft Teams as a communication process in the current pandemic era. Microsoft Teams is a one-step solution for users who need communication via chat, video conferencing, managing tasks in one application. Microsoft Teams display is more user friendly than other video conferencing applications. Microsoft Teams also supports desktop, mobile and browser devices. For recording meetings, everyone can see the recordings in Files available in Microsoft Teams. While Microsoft Teams everyone can record. For example, if the boss forgets to record, then the employee can click record. Another advantage is that you don't need to accept participants or external parties when you just start entering the meeting. The next advantage when viewed from the side of work, video conferencing during meetings looks clearer than its competitors. Then the advantage lies in the unlimited number of participants in Microsoft Teams, in contrast to zoom, which has a maximum number of participants. In addition, if the user's network is problematic, Microsoft Teams does not remove the user from the meeting, Microsoft Teams tries to wait for the user's network."*

3.3 Constraints that often occur in the Microsoft

Application *Teams*. When signing in or logging in it takes a little longer to enter, at the time of sharing screen there is no notification to tell who is asking or using a raise hand, it takes too much quota if you turn on the camera (*on camera*). The Technical Trainer and Modernization Sales Support stated as follows:

> *"In my opinion, if you eat too much quota, it seems like yes, especially when you are on camera. Sometimes the network is less stable, like suddenly losing sound. Another obstacle may be when I sign in, it takes a little longer to enter. However, if you have entered Microsoft Teams, there are no problems and it runs smoothly. The next problem is when sharing the screen using the desktop version of Microsoft Teams, if a colleague wants to ask a question with the raise hand symbol, I can't see who is asking and what the question is. Notifications don't appear like on Zoom, and I'm always told by my co-workers that someone wants to ask a question in the chat box or someone has raised their hand. If someone chats during a meeting I have to open Microsoft Teams to see who is chatting, even though I'm sharing a screen about work."*

3.4 Implementation of Media Richness in the use of the Microsoft Teams

Communication *Face-to-face* is a communication process that is carried out directly or face to face. For example, when talking to other people without any intermediary or communication media as a messenger or information. Direct communication does not require media or communication channels, except when communicating with people with disabilities who have hearing loss, where the communicant requires hearing aids as a medium of communication. In direct communication, there is almost no distance at all, aka

done with a short distance during the communication process. There are several advantages to direct communication, including being easier to understand, able to provide direct responses, nothing is hidden, and the possibility of *noise* is too little. Meanwhile, the disadvantages of direct communication are that it cannot reach widely, takes a long time to reach a wider area, and is less effective when viewed from a distance.

Video conferencing is an effective telecommunications tool between two or more people, anywhere in the world. By using this service, one can not only talk to each other but can even view videos of the people interacting with them. It is an effective two-way communication of audio and video transmission. This service utilizes internet media for data transmission (Melotronic, 2018).

This was also felt by the Cabinet Secretariat of the Republic of Indonesia, which held cabinet meetings via *video conference during* the COVID-19 pandemic. Unlike face-to-face cabinet meetings, through video *conference*, cabinet members can attend meetings anytime and anywhere. In face-to-face cabinet meetings, sometimes some cabinet members cannot attend because they are on a working visit. However, if it is done virtually, the cabinet meeting will be more effective because the participants can still attend the meeting from wherever they are. Cabinet members can take part in virtual cabinet meetings anywhere, they don't have to go to the places where cabinet meetings are usually held, namely the Jakarta Presidential Palace and Bogor Presidential Palace (Republic of the Cabinet Secretariat of the Republic of Indonesia, 2020).

Based on the explanation above, it can be seen that direct communication and the use of *video conferencing* can complement each other's shortcomings. Direct communication cannot reach widely. What is meant is that direct communication cannot be carried out remotely, in contrast to *video conferencing* which presents a solution to the lack of direct communication, namely being able to communicate without thinking about distance because it can be accessed anywhere, even in different countries, it can still hold communication.

Figure 5. *Diagram of Media Richness (Source: https://slidetodoc.com/social-media-management-theories-of-social-media-services/)*

In the picture above it can be seen that *face-to-face* occupies a level. The first is in the effectiveness of communication, or in other words, face-to-face interaction is the most effective form of communication when compared to other media. At the second level there is video *conferencing* which is a communication channel to help get instant feedback, there is a lot of variety of signals and a lot of customization can be done. This illustrates that between these two ways of communication can be the most effective communication compared to telephone, radio, email, etc.

In the theory of *media richness* proposed by Daft and Langel (1984) there are four criteria for assessing the richness of a media including:

- Immediateness (referring to the ability of the media to provide information on a regular basis and allow quick feedback).
- Diversity of cues (referring to the ability to communicate messages through different approaches, such as body, language, voice and intonation).
- Language variations (showing the ability to use different words to improve understanding, namely in the variety of ways in conveying ideas or concepts through *symbols*).
- Personal sources (focusing on the ability to express feelings and emotions, or more toward experience).

In using the *Microsoft Teams* , there is an immediacy to be able to carry out synchronous and asynchronous communication processes as said by the informant, Technical Trainer and Modernization Sales Support which stated:

"For the delivery of information regularly or immediately, there are many options in Microsoft Teams. In Microsoft Teams there are 2 communication processes, namely asynchronous and synchronous. Can carry out the communication process asynchronously, the most common being sending messages/chats to certain people, certain groups or to a team. You can do synchronous communication, you can do video conference (face to face), besides that you can make calls (voice only) it can also be done. Microsoft Teams provides direct feedback, because it has features such as polls/forms, which can be used to get direct feedback either to the team or to a person."

Then for the diversity of cues that refer to the ability to communicate messages through different approaches, there is information that is mentioned by Technical Trainer and Modernization Sales Support:

"Microsoft is one company that is very good at implementing accessibility. Because every service at Microsoft is provided not only for perfect people (but also for people with special needs). In Microsoft Teams it allows us to do that, for example for people with hearing problems, there is a Live Caption feature (it will directly write a kind of subtitle to what other people are talking about). This feature will make it easier for us to carry out the communication process, especially those of different languages. Selain itu Microsoft Teams nanti akan memungkinkan terdapat fitur Penerjemah Bahasa Isyarat seperti yang ada di televisi, sehingga orang-orang yang berkebutuhan khusus bisa menggunakan bahasa isyarat tersebut untuk mempermudah mereka melakukan komunikasi."

In addition, Microsoft Teams has Learning Tools Availability for verbal and non-verbal communication as explained by the Technical Trainer:

"In the Microsoft application there are Learning Tools Availability including Read Aloud & word/line highlighting, for example, someone who can't see, but he wants to see the reading, so he can hear what other people are saying, can be set to Spacing and Font Size For example, Page Colors are intended for people who are color blind, then later can be adjusted according to their use, Syllables is intended for people who have difficulty reading, then later it will be separated by one syllable, two syllables and so on, Line Focus to see the main focus of being read, Parts of Speech the part being discussed, Translation is for people who want to know the

meaning of the language, Picture Dictionary is a picture dictionary available in Microsoft Teams."

Figure 6. *Microsoft Learning Tools Availability (Source: www.microsoft.com)*

Then for language variations, it shows the ability to use different words to improve understanding, namely the variety of ways in conveying ideas or concepts through *symbols*. Regarding language variations, the Technical Trainer and Modernization Sales Support explained:

> *"Microsoft Teams supports 19 languages which can cover 181 countries. Among these languages are English, Indonesian, Arabic, Chinese, French, German, Turkish, Russian, Italian, Japanese, Norwegian, Portuguese (Brazilian), Swedish. For language variations, see Microsoft Teams settings. In addition to the symbols, emoticons, stickers, it is important to help melt the atmosphere during tense moments in meetings, then use stickers to be more familiar with co-workers than just text chat. There are gifs, stickers, emoticons, they can be just for fun, and so you don't get tense during meetings or chat with coworkers."*

Personal sources focus more on the ability to express feelings and emotions. This personal resource is important to deliver based on user experience. There were some interesting discussions related to this, which were explained by the Technical Trainer and Modernization Sales Support:

> *"The Microsoft Teams application is used for the work process, because at the company I work for which is a part of a Microsoft Partner, there is only one line of communication, namely using Microsoft Teams app. Unless there are new important things using Email. Furthermore, the use of Microsoft Teams for the teaching process on one campus and teaching at the Merdeka Campus for the Independent Study program. The next use of the Microsoft Teams application is when there is an organizational activity event that I make voluntarily and I invite other people to take part in the event, the context of voluntary activities is to share knowledge only. The rest is used for video conferences or meetings with superiors, co-workers, clients and others."*

Figure 7. *Flow based on the media used (Source: https://medium.com/the-message-io-dispatch/reducing-noise-in-the-workplace-with-mrt-49cdb6cede33)*

Microsoft Teams is a communication channel for staying connected with coworkers, students, and other users. In theory *, media richness* has the highest level of effective communication, namely *face-to-face* and in this study will see whether communication through media, namely *Microsoft Teams* can be equivalent to *face-to-face*. Modernization Sales Support explains:

> *"I think communicating using the Microsoft Teams app can be equivalent to face-to-face communication. However, when viewed in terms of feel, gestures, facial expressions are better directly. It's just that if you look at the media support, it's already on par with face-to-face, and it helps users who are eager to meet without having to bother going here and there. Especially with this pandemic that requires everyone to keep their distance. In addition, Microsoft Teams can be a solution for discussions, meetings, and clarifications. I don't have to meet in person, I don't need to go to the office. Because at this time I am also still a WFH (Work From Home), and the Microsoft Teams application really helps me in making presentations that will be discussed with colleagues."*

The Technical Trainer argues about the use of the *Microsoft Teams* when compared to *face-to-face* namely:

> *"From my point of view, I say that it cannot be equivalent to face-to-face communication, for me there is no virtual communication process that is equivalent to face-to-face communication. direct communication process. Because there are many things that can be done in face-to-face communication such as gestures, facial expressions and that cannot be seen in a virtual way, face-to-face is possible. If it's virtual, the camera is often turned off (off camera) so the communicator can't see the communicant either. If you want to be equal, you can't, but it can be a minimal solution in the communication process."*

IV. Conclusion

Based on the findings and discussions, it can be concluded that video conferencing can be a substitute medium or means of face-to-face communication. Video conferencing is a form of technology that can help facilitate communication with a very wide range. Video conferencing has wealth and is accepted by users as a communication medium to interact with other users. Video conferencing can provide communication that is effective,

efficient, easy to use and close to face-to-face communication. theory diagram media richness that video conferencing is included in the highest level of media richness, this illustrates that the effectiveness of communication is much greater and can be equivalent to face-to-face. Microsoft Teams can be an alternative solution for users who want easy communication with the various features provided. Microsoft Teams is considered to be a platform , because it can support reliable work team productivity. The findings of this study can help provide insight into the use of video conferencing especially the Microsoft Teams which can be a second choice if someone cannot communicate directly (face-to-face). Microsoft Teams is indeed considered to have become an alternative medium for face-to-face, especially during a pandemic so that it can facilitate the implementation of WFH (Work From Home). Microsoft Teams has accommodated four criteria in implementing the theory of media richness. But even though they have met these four criteria, Microsoft Teams still has drawbacks, including not being able to see body language such as body movements, facial expressions, and sometimes users don't even show their faces (off camera) during meetings . This is what makes the Microsoft Teams cannot be equivalent to face-to-face communication.

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