

## **Teachers' Beliefs in Integrating Digital Literacy in EFL Classroom: Decomposed Theory of Planned Behavior Perspectives**

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### **Abstract:**

*The need for integrating digital technology into learning instructions has been acknowledge as a most prominent aspect in 21st Century learning. With emerging technology rising in prevalence, a digital consciousness to select and manage digital resources safely, appropriately, and efficiently for digital learning instruction is crucial. This present study is intended to explore teachers' beliefs in the integration of digital literacy in EFL classroom using Decomposed Theory of Planned Behavior (DTPB) perspectives. The study was a qualitative study by means of case study research design to obtain a reliable understanding of the phenomenon. The data were collected using semi-structured interview, open-ended survey, and documentation. The data were retrieved from the purposively chosen informants based on the familiarity with digital technology. The results indicate relatively high levels of integration and consistent beliefs about the advantages, support from the environment, and the technology availability to integrate digital literacy into teaching learning activities.*

*Recommendations are suggested to advance schools equipment to mediate the better support in constructing technology-enhanced classroom for teachers.*

**Keywords:** *beliefs, decomposed theory of planned behavior, digital literacy, teacher's belief*

## **1. INTRODUCTION**

This century, when the boundaries between online and offline are blurred due to the tremendous development of technology, the emergence of digital world has become inevitable. The digital world is situated where the internet becomes the center of the heart of day-to-day life activities. Brolpito (2018) argues that comparing to the internet users in 1995 which covers 1% of the population, there were around 42% of the world's population in 2016 have an internet connection. In this matter, the integration of digital technology has started to dominate people needs as well as people mindset in many areas of modern society such as communication, consumption, profession, and education. Dominated by the transformation of technology, education in 21<sup>st</sup> Century is highly exposed to and participated in the technology integration which has invaded into various situations of transforming and utilizing digital tools in order to achieve educational purposes across subject matter.

In the digital-mediated world, technology integration transforms the way educational institutions operate. Concentrating on the utilizing of technology, educational practices has evolved in terms of the experience to read, write, and communicate through various digital platforms. According to Deaney, Ruthven and Hannessy (2006), the availability of technology facilitates educators to develop and prepare learning with broader opportunities to transforms learning instructions innovatively. In this sense, digital tools are used for a large number of activities and opportunities to improve the accessibility and creativity on distance learning. Therefore, online learning continually grows in popularity with the intentions to develop students' 21<sup>st</sup> Century skills, promote collaborative learning, and prepare students' future skills in the digital world. With the tendency to constantly integrating digital technology in education, teachers are required to have new skills and literacies namely digital literacy (Hockly, 2012)

In the context of English Language Teaching, Baxa & Christ (2017) propose the concept of digital literacy as an optimal application of ICT which primarily focuses on the utilization of digital tools in English language teaching. In doing so, teachers become the significant decision-maker for the whole teaching learning instructions happened in the classrooms. Becoming the forefront of the successful integration of digital literacy, teachers' decisions to successfully integrate digital literacy in the classroom are shaped by individual beliefs (Chien et al., 2018; Levin & Wadmany, 2006; Ph et al., 2013; Savasci-Acikalin, 2009; Uztosun, 2013). Moreover, Ertmer (2005) suggests that most pivotal factor on how teachers utilize the technology is teachers' beliefs.

According to Fauzi et al. (2017) teachers' beliefs are assumptions about students, classrooms and instructional material which correlates with the method and strategy in teaching and learning process. In addition, Richard and Lockhart (1994) suggest that teachers' beliefs are subjective and objectives variables that affect teachers' decision in the classroom. Furthermore, teachers' beliefs have been seen as crucial topics to be discussed in broader educational background (Hoy et al., 2015). In this regards, there are several studies have explored positive correlation between teachers' beliefs and teachers' intentions to integrate technology in educational context results (Chien et al., 2018; Savasci-Acikalin, 2009; Uztosun, 2013). Becoming the most critical factors which effect teachers' decisions, addressing teachers' beliefs may provide valuable information about the teachers' intentions and behaviors on a particular action.

Several studies have been conducted on digital literacy which solely focus on the skills and competency of the teachers. Interestingly, the results from the studies indicated that teachers' decisions toward the integration of digital literacy were affected by their beliefs. In this regards, Bordalba & Bochaca (2019) investigated the beliefs of parents and teachers to utilize digital tools for facilitating education inside and outside classroom. Using DTPB as a theoretical model of teachers' beliefs, the result showed the positive correlation between what they beliefs and what they do. In this sense, the integration of digital tools occurred when teachers were convenient to do so. Furthermore, Chien et al. (2018) investigated teachers' beliefs in integrating technology from 494 numbers of high school science teachers. Using DTPB framework to examine teachers' beliefs, the results confirmed the intention of integrating technology by the science teachers were mostly affected by their beliefs systems. The results revealed the beliefs about usefulness, ease of use, and compatibility were significant predictors which affect personal intention to integrate digital tools.

Last but not least, Sadaf & Johnson (2017) investigated the beliefs of in-service teachers in integrating digital literacy based on theory of planned behavior (TPB). Collecting the data across subject matter, the results indicated three major themes of the beliefs system. The behavioral beliefs reflected teachers' expectation about the benefits to integrate digital literacy. The normative beliefs related to the aspirations from the supervisors, colleagues, parents, and students in shaping the educational practices. Meanwhile, control beliefs, the availability of resources and technology, indicated as the most prominent aspect that affected teachers to integrate digital literacy. In conclusion, the research revealed that the integration of digital literacy was strongly influenced by external factors including condition and context.

Becoming one the most ongoing topic in the 21<sup>st</sup> Century, studies related to teachers' beliefs and its integration have been extensively conducted. Nevertheless, there has been limited exploration about teachers' beliefs in integrating digital literacy especially in EFL classroom. By putting the aforementioned studies as consideration, the issue about teachers' beliefs in integrating digital literacy was chosen with the intention to

fill the research gap under the theme. Guiding to the identification of the problem, the research question in this study included:

1. What are teachers' behavioral, normative, and control beliefs in integrating digital literacy in the classrooms?
2. How are these beliefs reflected in teaching and learning activities?

In this sense, this present study aimed at investigating EFL teachers' beliefs based on decomposed theory of planned behavior to examine teachers' viewpoints about the compulsory aspects that affects instructional decision. Furthermore, the prominent categories of teachers' beliefs in integrating digital literacy was also listed in the study.

## **2. LITERATURE REVIEW**

### **2.1. Decomposed Theory of Planned Behavior (DTPB)**

Essentially directing individual decisions towards behavior, the notions of beliefs have been defined by several researchers. According to Rokeach (1972) belief is a proposition which is consciously and unconsciously formed representing someone's behavior in particular context. Furthermore, Borg (2001) defines belief as an evaluative principle that consciously and unconsciously held and accepted to be right which imbued with moral commitment, thus offers a basis to perception and action. In educational context, Kagan (1992) proposed he definition of teacher beliefs as temporal assumptions about students, classrooms, the instructional materials to be taught. In particular, Sadaf & Johnson (2017) found that teachers' beliefs influence teachers' intention to integrate digital literacy in the classrooms. In this matter, as a basic notion on the decision- making of classroom activities, teachers' beliefs reflect on how teachers shape their teaching and learning instructions offered to the students.

Concentrating on the teachers' intention to decide teachers' action in the classroom, teachers' beliefs has become the prominent issues to consider. In this matter, Ajzen (1991) proposes Theory of Planned Behavior (TPB) to analyze teachers' beliefs and their intentions to integrate technology in the classrooms. However, to pin point more specific categories of the provided aspects in TPB, Decomposed Theory of Planned Behavior (DTPB) has emerged. Originated derive from TPB, DTPB has similar aspects except the break down categories. The DTPB explores behavioral beliefs, subjective norms, and control beliefs more thoroughly by decomposing the aspects into lower-level categories. According to Taylor and Todd (1995), DTPB offers more details information and specific interpretations for each category.

The first aspect of DTPB is behavioral beliefs. Behavioral beliefs imply individual's positive or negative appraisal to perform particular action. In this matter, behavioral beliefs relate to the personal feelings about consequences of the performed behavior. Under DTPB perspectives, Taylor and Todd (1995) propose three sub-categories of behavioral beliefs, namely: perceived usefulness, perceived ease of use, and compatibility. Perceived usefulness refer to the degree to which someone assumes that the use of a certain tool or software assists them do a better job. Perceived ease of use

is described as the degree to which individual thinks that the benefits overshadow the efforts. Meanwhile, compatibility implies the degree to which particular action is appropriate to the current standards and expectations.

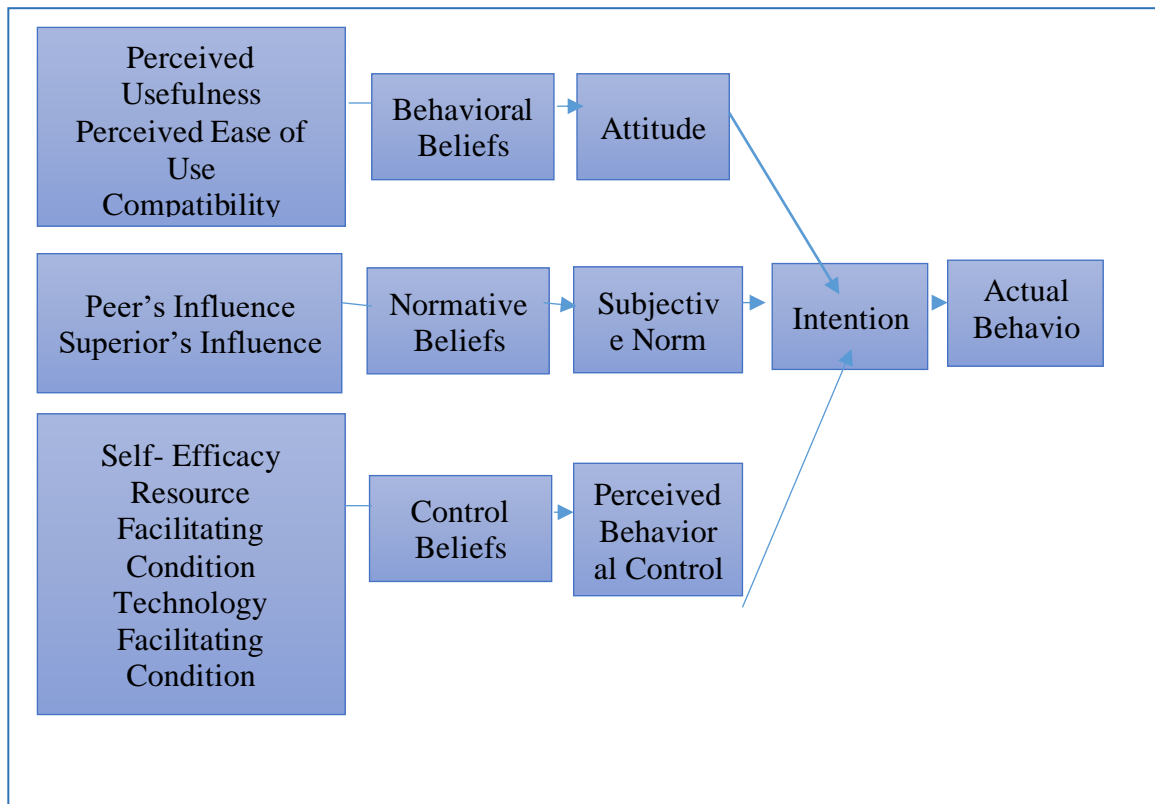


Fig.1 The Decomposed Theory of Planned Behaviour (DTPB), adapted from Taylor and Todd (1995).

The second aspect of DTPB is normative beliefs. Ajzen (1991) suggests that normative beliefs focus on the possibility to perform certain behavior because of individual or groups' approval and disapproval. In this sense, it concerns with individual's perspective to whether particular behavior is should or should not acted. Taylor and Todd (1995) propose the categories of normative beliefs into the influence of peers and superiors. Furthermore, the third aspect is control beliefs. According to Ajzen (1991), control beliefs are set of beliefs which concern with the availability or unavailability of the required facilities and opportunities which may be generated from past experiences. Particularly, Taylor and Todd (1995) propose three aspects of control beliefs, namely: self-efficacy, resources-facilitating condition, and technology-facilitating condition. Self-efficacy means the courage to perform a certain behavior effectively. Resource-facilitating condition refers to the external condition such as time

and money. Meanwhile, technolog-facilitating condition means the presence and the opportunities to use technology.

## **2.2. Digital Literacy**

Digital literacy is characterized as a principle that has been studied by a number of researchers and practitioners since 1990s, consisted of Gilster (1997), Bawden (2001), Eshet-Alkalai (2004), Martin (2008), Lankshear & Knobel (2008), Hogue & Payton (2010) and Hockley (2013). Introducing the concept of digital literacy, Gilster (1997) proposes the definition of digital literacy as mastering knowledge how to access and use a wide range of networked-programming resources. In addition, Eshet& Alkalai (2004) define digital literacy as modern-era survival skills constitute skills and strategies used in the digital world. Meanwhile, Hockly (2013) describes digital literacy as an extension to development skills in educational context which equip students for future careers, including media, communication, and technological competences relate to knowledge on utilizing technology that were helpful in creating, engaging, collaborating, searching, and analyzing information in a modern environment. Moreover, Martin (2008) extends the definition of digital literacy as ‘awareness, attitude, and ability to make use, recognize, navigate, assess, interpret and synthesize digital resources, develop new information, generate content media, and interact with others in the real life contexts appropriately.

As one of the most prominent skills in 21<sup>st</sup> century, study about digital literacy has been increased in a number of interest. Duriyah & Zuhdi (2018) conducted a study in EFL classroom in Indonesia to investigate the initial perception of Indonesian pre-service teachers regarding to the implementation of technology into classroom activities. Conducting survey as a technique of data collection, the results showed that the utilization of technology in the classrooms presented a number of factors that impact on the intentions and concepts of the teachers. Concluding the study by Durriyah & Zuhdi, the tendency to implement technology in the classrooms involved students’ attitudes towards the performance. Furthermore, teachers’ intention to utilize digital literacy was affected by their beliefs about learning objectives to develop spontaneous and authentic interpersonal communications. The next study was conducted by Önger & Çetin (2018) in the context of pre-service teachers of Social Studies teaching program. Focusing on 32 teachers’ candidates, the study aimed at elaborating teachers’ ideas about the concept of integrating digital literacy in education. The study found that the notion of digital literacy directly correlated with the perceived usefulness when integrating digital technology.

## **3. RESEARCH METHODOLOGY**

In order to obtain an in-depth interpretation of a particular phenomenon, this study was conducted under a case study research design. According to Cresswell (2018), case study is a qualitative approach in which the investigator analyzes a case through detailed in-depth data collection containing different source of information from various method, for example: observations, interviews, and documentations. The

underlying consideration of conducting case study was because this study worked on discovering in-depth information of a particular issue. Moreover, the choice to use case study research design was based on statement by Helenrose & Grill (2015) who assert that case study is suitable method to examine teachers' beliefs and practices because those happen in natural setting in the classroom. The following information explain about the participants, instrument, and data analysis procedures.

### **3.1. Participants**

The participants of this study were purposively chosen based on several considerations of having the criteria on the issue. In this matter, a purposive sampling strategy was used to select the participants (Patton, 2002). Criteria of choosing the informants are explained as follows: (1) In-service English teachers with more than 5-year experiences and have been participated in teacher certification program in 2019, (2) frequently integrating digital literacy and comfortably using computers as part of teaching learning instruction, (3) commonly attending provisional development regarding to technology or digital literacy. The participants in this study were twenty-five EFL in-service teachers from which all of the participants were high school teachers in Indonesia. They were ten male teachers and fifteen female teachers with age range from 27-50 years old. In particular, the interview participants were two EFL educators from Senior High School and Vocational High School in order to obtain deeper interpretation of two independent learning environments.

### **3.2. Instruments**

In order to explore teachers' beliefs in the integration of digital literacy, this study concentrated on three primary data sources, namely open-ended survey, semi-structured interview and document analysis. The open-ended survey was conducted in order to get general understanding about the concept. The instruments of this study were adapted from Sadaf and Johnson' framework on teachers' beliefs in integrating digital literacy centered on the TPB (2017). In this sense, the semi-structured interview was selected as it offers accessibility to researcher and participants to move beyond preconceptions while maintaining to a focus question and consistency which assist the interpretation from the survey. The semi-structured interviews were conducted approximately 1 months for each teacher to explore data about teachers' beliefs. The interview conducted for 40-60 minutes each which were recorded and transcribed to obtain the data about teachers' beliefs in integrating digital literacy. Furthermore, the documents obtained from the teachers were also analyzed to enrich and support data collected from the interview to get the information about the implementation of teachers' beliefs in teaching learning decisions to integrate digital literacy.

### **3.3. Data Analysis Procedures**

Regarding the trustworthiness, member check and method triangulation were used to ensure credibility of the information. The member-check was done by giving the participants the interview transcripts to confirm the consistency of the analysis, the interpretation, and the conclusion between the transcripts and the sessions. Meanwhile,

the method triangulation ensured the trustworthiness of the data by combining the data sources, theories, and data collecting method (Guba, 1981). Specifically, this study was employed method triangulation by applying different techniques of data collection, namely: open-ended survey, semi-structured interviews, and document analysis. Firstly, open-ended survey was conducted to the twenty-five teachers to get general view about digital literacy. Meanwhile, semi-structured interviews were conducted to two EFL in-service teachers by considering appropriate time in order to minimize the external obstacle. The interview employed Indonesian language to facilitate the participants to give relevant and details information with respect to the focused data. Thirdly, the researcher collected teachers' documentations right after the interview processes. The teachers' documents such as lesson plans were examined in order to get information about the implementation of the teachers' beliefs in deciding learning instructions.

The collected data from open-ended survey and the semi-structured interview were analyzed using Constant Comparative Method (Strauss & Corbin, 1998). In this study, the survey was designed to depict the behavioral, normative, and control beliefs which were adapted from Sadaf and Johnson (2017). Furthermore, each process of the interview was recorded digitally in order to facilitate the researcher in doing the data transcription. The recordings of the interview were listened and transcribed carefully. The transcriptions of the interviews were read several times in order to achieve a general view about the information. Afterward, the raw data from the transcription were subsequently grouped into thematic coding based on related issues to categorize teachers' beliefs by finding particular patterns. The similar categories were collected into tentative labels of the data which indicate teachers' personal beliefs. In addition, the data obtained from documentations were coded into the existing categories to support the data from the interviews. The frequencies of the codes were noted in order to find the relationship between themes of the categories. Finally, the data were processed and analyzed in accordance to the research questions.

#### **4. FINDINGS**

This section discusses the encountered findings which reveals EFL teachers' beliefs and practice on integrating digital literacy in EFL classrooms based on DTPB perspectives. The elaboration revealed teachers' intention to adopt digital literacy integration were strongly motivated by their beliefs in which affected by contextual factors.

##### **4.1. Teachers' Behavioral, Normative, and Control Beliefs in Integrating Digital Literacy in EFL Classrooms**

###### **4.1.1. Behavioral Beliefs**

Reflected from the teachers' point of view that performing particular behavior lead to the desirable outcomes, the results of behavioral beliefs are categorized into three sub-heading, namely: perceived usefulness, ease of use, and compatibility. Anchored from



the data of this study, the aforstated attributes taken from the open-ended survey questions about behavioral beliefs are portrayed as follows:

Table 1. List of Behavioral Beliefs (n=25)

No.	Attributes of Behavioral Beliefs	Frequency	Percentage
1	Perceived usefulness	20	80%
2	Perceived ease of use	15	60%
3	Compatibility	10	40%

The results of the interviews revealed that the most common addressed behavioral beliefs were the benefits of integrating digital literacy as a basic competence students need to comprehend. Most of the teachers believed that integrating technology assured the authentic materials delivered meaningfully. Along with the abundance of accessible online resources, the teachers required particular skills to reproduce the available learning resources which is appropriate to the students. In this matter, the teachers defined digital literacy as the capability to maintain and manage online resources appropriately in order to achieve particular teaching objectives.

*Despite of a large number of online resources, I need to choose the most appropriate instructional materials considering students' level and learning objectives. As a teacher, I should aware that there are a lot of false information or hoax thus I need to warn the students to be cautious when using an internet.*

Furthermore, the use of LCD during teaching and learning activities required teachers to develop such material with a lot of exposure to multimedia-based materials. In this sense, the teachers provide the students with texts, pictures, audios, and videos in order to create a comprehensive understanding about related materials. Furthermore, taken into account the results of the documentation, the lesson plans developed by the teachers showed the activity that mostly integrated technology. Technically, the multimedia-based learning commonly used in brainstorming phase to attract students' attentions. Furthermore, the video and printed materials were chosen appropriately based on the syllabus and learning objectives.

*I frequently use LCD to deliver the materials to attract students' attention. By doing this, it helps me to give authentic materials to the students by giving pictures or videos to support the written materials. Indeed, I believe that integrating technology with suitable and appropriate materials will develop holistic understanding than just using printed materials. Indeed, it is useful to help students develop particular English skills, such as Listening and Speaking.*

Despite the advantages of utilizing technology into learning instruction, another reasons of the teachers to integrate digital literacy was the easiness to perform this activity. One of the teacher explained that by integrating technology, she reduced the

complexity of writing down the materials in the white board. Moreover, in English learning the use of technology appropriately assisted the students to have more clear English sounds and pronunciations.

*I feel comfort to use LCD because it helps me to simplify my works. Rather than writing down the materials in the whiteboard, I use Power Point as a media to deliver the materials. My students are more interested in learning by using PPT because it can be attached with pictures, videos, audios, and texts.*

As an instructional media to support learning activity, teachers believed that the attempts to perform particular action using technology require less effort. In this sense, students had discretion to extend their range of learning sources. The students could get a lot of information not only from the teacher and textbooks, but the students also could access the information from the internet.

*I allow the students to access internet, such as Google, Youtube, Wikipedia, and Blogs to enrich their information. I believed that the students are already common with internet in the daily activity that students are knowledgeable to search and find other information.*

Regarding to the results from the interviews, both participants elaborated the most common consideration to integrate digital literacy as the requirement skills for 21<sup>st</sup> Century learning. Regarding to the digital technological era, the participants asserted that the widely accessible information and technology have significantly affected individuals to experience new knowledge.

*I want to make the students more aware to the way people communicate nowadays. I think introducing technology-based activities to improve students' teamwork, cooperation, problem solving, and critical thinking in 21<sup>st</sup> Century.*

During the interviews, both teachers agreed to integrate digital literacy since it assisted students to learn requirement skills for their future careers. Highlighting the phenomena of digital world, teachers believe that integrating digital literacy in today education should be a requirement rather than an optional. Burnett, Merchant, and Perry (2016) stated that digital literacy provided new opportunities to communicate among people specifically to a wider or even to unknown audiences.

*We use technology every day. We use it to communicate, read, share, or buy something- we can't ignore this condition, thus education should match up with the reality happened in daily basis of the students.*

#### **4.1.2. Normative Beliefs**

Normative beliefs explain to what extent others people opinions affect someone's decision to perform particular activity. With regard to the DTPB, the normative beliefs are discussed under two criteria, namely influence of peers and influence of superior.

Table 2. List of Normative Beliefs (n=25)

No.	Attributes of Normative Beliefs	Frequency	Percentage
1	Influences of Peers	18	72%
2	Influences of Superior	22	88%

The interview participants suggested that the decision to adopt digital literacy into curriculum was to accommodate the expectation of their colleagues. Teachers claimed that the assistance of their peers became another motivation to promote digital literacy. In this sense, the teachers could assist one another whenever they found obstacles. Having different ages and experience, the colleagues' supports were needed to achieve learning objectives which were compatible with today's requirement.

*My colleagues at school are always supportive of integrating digital technology for teaching and learning activities. We always spend sometimes to talk and share about a new implementation of technology-based learning. My colleagues always share their knowledge about kind of activities or online applications which specifically appropriate to improve English skills.*

Furthermore, the data from the interview showed that the approval from school administrators played a significant role in adopting digital literacy in the classrooms. As one of the interview participants stated that gadget was limited to be used in the classroom. In this matter, the teachers required to ask specific permission to use gadget in their classroom.

*My school used to limit the utilization of digital tools such as smartphone in the classroom. However, I believe that despite the negative sides that may appear, students need to be common with the digital usage. So, I personally asked to the school administrators to allow my students using gadget in my class. Now, English learning is permitted to use gadget as long as under my supervision.*

#### 4.1.3. Control Beliefs

Control beliefs measure to what extent individual beliefs affect the performance of particular behavior. In this study, control beliefs are divided into self-efficacy, resources availability, and technology availability.

Table 2. List of Control Beliefs (n=25)

No.	Attributes of Normative Beliefs	Frequency	Percentage
1	Self-Efficacy	20	80 %
2	Resources Facilitating Condition	15	60 %
3	Technology Facilitating Condition	18	72 %

In general, the participants pointed out that the major consideration to integrate digital literacy was teachers' ability and skills to have control over the digital technology resources. One of the teacher emphasized that the integration was affected by their self-confidence to use digital tools. She chose the most convenient modes to deliver her materials because it was more effective to do a preparation. Furthermore, she was better prepared to deal with problems and obstacles during the teaching and learning activities.

*I integrate digital literacy because I believe that I have the ability to utilize technology in my classroom. I frequently use LCD to deliver the materials because it is convenient. I use LCD to show texts, pictures, and videos more than textbooks because it is effective to attract students' attention. I prepare the materials in PPT by myself, so I feel more ready to face a problem that may appear during the lesson.*

In addition, the other participant asserted that integrating digital literacy required the suitable technological competence. The participant accentuated the importance of technological competence as it assisted the teacher when there was an obstacle happened towards the integration. Accordingly, there was a requirement to follow up the students' expectations in delivering materials. In this matter, the more the practice is, the more successful the integration will be.

*My students are digital native thus as a teacher I need to meet their expectations about teaching and learning using technology. So, I try to keep using technology to deliver the materials. I use multimedia-based learning because I know that I can utilize it properly. I also join in several seminar or conference related to technology integration in education to enhance my knowledge.*

In this study, resource facilitating condition relates to the situational factors which affect teachers' motivation. The data from the interviews showed that both teachers are emphasized the importance of time to prepare the materials and money to buy internet data plans. Although many people assumed that access to technology in education could improve digital literacy competence, however some people believed that some factors could impede the successful integration of digital literacy. Taken from the results of the interviews, the participants agreed that the condition of the environment which affect the successful integration of technology was time preparation.

*As a teacher, the complication to integrate digital literacy is the time preparation. Despite the effectiveness when it is integrated in the classroom, the preparation spends a lot of time because I need to search and choose the most appropriate materials for students. I can't use all the available materials in the internet, I need to filter it before it is implemented.*

In addition, another influencing aspect found in this study was money. The interview participants indicated the importance of money to buy the internet data plans. The participant mentioned that the cost of the internet data plans when using technology

impacted the reliable and accessed to the internet websites. Another participant stated that the expense of technology could be a hindrance to be implemented for all of the students.

*I believe that my students have already common with technology, but the students find difficulties to have a distance learning due to the limited data plans. Therefore, rather than using video, I use several online reading websites in order to keep the distance learning affordable.*

Furthermore, technology facilitating condition was defined as the condition where the technology facilitated the integration. In this matter, the findings of the interviews showed that the availability of technology, such as accessibility to devices, connectivity to learning applications, and reliable internet connections were prominent aspects to integrate digital literacy.

*I decide to integrate digital literacy as the school provide language learning laboratory. The condition is more suitable to learn language as computer, LCD, and headset for each student is available. These situations facilitate the EFL learning better, thus I decide to use the language lab frequently.*

In terms of control beliefs, the results from the open-ended survey showed that having access to technology and having self-efficacy to digital tools was addressed as a constructive impact to teachers' intensions when integrating digital literacy.

#### **4.2. Teachers' Practice in Integrating Digital Literacy in EFL Classroom**

This issue elaborates the activities which happened in the classroom taken from teachers' lesson plan. Anchored from the lesson plan, the teachers mostly used discovery learning method which integrated critical thinking, communication, collaboration and creativity in which digital technology was required. The lesson plan showed the utilization of multimedia-based teaching through the use of LCD to deliver the materials. In this sense, the teachers used pictures or videos to attract students' attentions as brainstorming. The teachers used video taken from Youtube by attaching the link in the lesson plan.

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**Simulation Phase**

*Students pay attention to videos from the teacher about informative text through the following links:*

*<https://www.youtube.com/watch?v=edSimGEPmfg>*

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The main activities focused on solving the problems through discussion activities. The next activities required the students to present the result of the discussions using Power Point application.

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**Main Activities**

*Students present the results of the discussions in front of the classroom using PPT to explain the concept of the outline.*

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The generalization activities showed the activities to evaluate students understanding. In this matter, the teacher used online games as the learning media.

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<b>Generalization Phase</b>	<i>Students play online games to evaluate their understanding through Kahoot link: <a href="https://create.kahoot.it/share/short-story-quiz/fa5ffc4e-161c-41cb-ac05-615e5a2d3c6c">https://create.kahoot.it/share/short-story-quiz/fa5ffc4e-161c-41cb-ac05-615e5a2d3c6c</a> and then making conclusion about the important points from the materials.</i>
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The lesson plans also showed how the teacher manage students' homework using digital media. The formative and summative assessment used various online platform to collect the result, for example: Google-form, Google-classroom, @line groups, and email.

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<b>Formative Assessment</b>	<i>Choose one of the topics below, make an outline and write a 500-word text (Introduction-Body-Conclusion-References). Submit the results on the google classroom.</i>
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In integrating digital literacy in the classroom, the lesson plans showed the exposure of media and tools using technology. The lesson plans also depicted the use of internet resources to support the teaching learning activities. The various opportunities of utilizing online platform in each phase reflected the strong intention of teachers to integrate digital literacy in their classrooms.

## 5. DISCUSSION

As teachers' practiced are affected by what teacher' belief (Ertmer, 2010; Pajares, 1992; Sadaf & Johnson, 2017), the exploration of teachers' beliefs regarding the utilization of digital literacy may indicate intentions of the teachers either to adopt or to restrain their initiatives to adopt digital usage in education. This section prolongs to discuss the gathered data which has been analyzed and displayed in preceding section. The findings of the study indicated positive attitudes towards digital literacy as a competence to perform digital tools appropriately. Anchored from teachers' consideration of the utilization of digital literacy, the idea to achieve particular goal was the essential aspects on shaping teachers' beliefs.

The teachers considered the degree of positivity benefits when deciding to perform particular action in the classroom. This result was harmonized with previous studies conducted by Tan (2013) who found that digital literacy facilitated teaching and learning process through utilizing digital resources which provided students with abundantly access to online learning materials. In line Eshet- Alkalai (2004) reported that digital literacy enhances the ability to analyze and verify digital content which assists individual to reproduce contents by combining several old information into meaningful novice combinations. In line with the Sadaf & Johnson's findings, the results showed that the potentials and opportunities offered by digital usage became the significant factor of the teachers when integrating digital literacy. In addition, the

teachers decided to integrate digital literacy because it was compatible with the prerequisite for 21st century learning.

In terms of normative beliefs, two attributes indicated the degree to which the encouragement from the colleagues and school administrators effected the successful implementation of digital literacy. It is suggested that supports from colleagues influenced teachers in using digital literacy particularly in situations to handle the emerging problems by providing supports in terms of discussion and assistance in experiencing digital usage. Meanwhile, Yang and Huang (2018) argued that additional assistance from relatives were needed in terms of exchanging suggested strategies in utilizing technology. In this sense, teachers apparently used materials, tools, and media when they had someone to explain and help them when they found an obstacle during the process. In line, Borg (2003) confirmed that coworkers, relatives, and environment were considered as the prominent factors affecting teachers in decision making activities.

The findings from survey and interviews indicated that the recognition and encouragement of coworkers and principals to effectively integrate digital literacy into curriculum influenced the teachers' beliefs. The school administrators including principals, staffs, and other teachers had different levels of supports which became the significant factors of successfully integration of digital literacy. The principal supplied regulatory assistance such as approval to perform particular actions. The school staffs provide technical assistance, meanwhile relatives supported the implementations by means of informing, guiding, and discussing the suggested strategies to perform particular behavior. In this regards, the findings confirmed previous study conducted by Astoglu & Jimoyianis (2012) who found that support from school administrator motivate teachers' intention to perform technology-based teaching. In this matter, the higher percentage of the influences of the superior than the peers indicated that the teachers were more rule-follower.

In terms of control beliefs, the survey revealed that access to technology and high self-efficacy onto digital media have been described as a profound contribution in digital-based activities. In line with previous study conducted by Sadaf & Johnson, the results indicated positive impacts about technology availability. Moreover, the interview participants highlighted that technology without having the competency and self-confidence to utilize digital tools were meaningless. As stated by Taylor and Todd (1995) who assert that the more confidence and the more access about the resources that the teachers have, the higher perceived behavioral control they would perform. Furthermore, the related study undertaken by Hutchinson & Reinking (2011) showed that absence of professional development and lack of access to effective digital technology hindered the successful integration of digital literacy into curriculum. In this respect, the more potentials and opportunities people have, the fewer obstacles someone would anticipate.

Correlating to the learning practices presented from the lesson plan, the activities showed highly integrated of digital-based learning. Elaborated in each syntax of

teaching learning activities, the use of LCD, Multimedia, and Online application were used in various activities to develop students understanding about the materials. The digital media facilitated the process of delivering the materials, presenting the topic, and evaluating students' understanding. The data from the documentations showed that teachers who had positive beliefs in integrating digital literacy would have higher intention to take ideas into an actions.

## 6. CONCLUSION

In this study, the elaboration of EFL in-service teachers' beliefs and its impact in shaping learning decisions to integrate digital literacy were presented based on surveys, interviews, and document analysis. This understanding guided the understanding about teachers' intentions either they choose to provide or prevent the opportunities into an actions. Corresponding to the individual understanding about the notion, teachers defined the concept of digital literacy as skills in utilizing digital technology effectively and appropriately with focusing on etiquette and e-safety. In doing so, the assumptions about the benefits, easiness, compatibility, surrounding supports, and availability of facilitation technology were reliable attributes of their beliefs. Given the emphasis on classrooms instructions, the results indicate positive correlation between those beliefs and practices as proved by the teachers' lesson plans. In doing so, it was found that positive attitudes towards technology which effected by personal history of education and experience in technology influenced the successful performance of particular behavior. Considering the diverse teachers' background and experiences, therefore, it is recommended to arrange regular workshop and training which promote technology-rich environment in accordance with the students' needs and teachers' competence to promote academic requirements of the 21<sup>st</sup> Century.

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