

## **CHAPTER I**

### **INTRODUCTION**

This chapter describes the introduction of the research which includes several stages. The first stage the researcher discusses the background of the research. The second stage the researcher describes the identification of the problem. The third stage of the researcher ensures the delimitation and focus of the research. In the fourth stage, the researcher writes down the research questions. The fifth stage the researcher writes down the aims of the research. The sixth stage the researcher describes the significance of the study. The seventh stage is the researcher elaborates the theoretical foundations. In the eighth stage, the researcher describes and relates previous studies. Ninth, the researcher lists the research framework. Finally, the researcher describes the research method that guides the writer to conduct the research. This chapter provides the data or information needed to conduct research in developing learning video materials for teaching short messages at Junior high school.

#### **1.1. Background of the research**

Currently, especially during the COVID-19 pandemic, students have no interest in learning. In the situation where students cannot attend offline classes, learning has been switched to online to break the chain of transmission of the Covid-19 virus (Salsabila, et al., 2020, p. 189). However, Indonesia is not ready enough to switch from traditional offline classes to online classes, as evidenced by the many unpreparedness of teachers and students in online learning activities (Haryati & Sukarno, 2021, p.480). One of the obstacles is the availability of learning media that is not interesting enough for the students. There are so many media that can be used for learning, but with the development of technology, not all media can attract students' attention.

There are many technology-based media that teachers can use for the learning process. The most popular technology-based media commonly used by

teachers are WhatsApp®, Zoom® and Google Classroom® applications (Yuangga & Sunarsi, 2020, p. 53). WhatsApp can be used as a learning media where educators and students can exchange information, disseminate information and create a learning discussion forum about topics and assignments, or simply convey a greeting from educators to students (Pustikaayasa, 2019, p. 72). Another application is Google Classroom, which is designed to help teachers and students when these two things are lacking. Through the Google Classroom application, teachers can organize classes and communicate with students without being tied to a classroom schedule. Teachers can also assign assignments and grade students directly (Sabran & Sabara, 2019). The last is the Zoom application. Zoom has some features like an annotating virtual whiteboard for explaining concepts, group workspaces for creating small collaborative group works, and chatting during the discussion. In addition, Zoom meetings can be recorded for review at a later date (Serhan, 2020).

Of the previously described technology-based media, there are still many shortcomings. Serhan (2020) describes some shortcomings, including the WhatsApp application, which is considered less effective as students are easily tempted by other incoming messages. In the Google Classroom application, students often forget to open Google Classroom because sometimes there are no notifications on the student's cell phone. The last is Zoom with no or limited network, so learning is not conducive and effective. The researcher is thus taking one of the electronic media intended to draw students' attention while learning in times of the pandemic. The medium is a video learning medium.

Video learning media is a very effective learning medium and has been widely used during this pandemic era as it not only displays text but also images and sounds that are digitally packaged (Akhyar, et al, 2018). It is a mix of audio and visual media. Video is a complex teaching medium because conveying information is more communicative than images. The information presented in the video is perceived as a complete picture describing actual conditions

(Sofyan, et al, 2019, p.105). It's difficult to describe a person by telling a story if the person doesn't see the events we're telling. With the help of video learning media, the explanation of teaching materials becomes easier to understand, since moving images are described as real circumstances in addition to audiovisual ones (Afriansyah, 2019, p. 53). This can draw students' attention as they not only focus on reading but pay more attention to both watching and listening. Video is also an entertaining learning medium (Hadi, 2017). When the quality of instructional video materials such as content, text, images, and sound looks good and visible, students can respond positively to video-based instructional materials (Donkor, 2011). This will surely draw students' attention to what is being taught in the video. Therefore, video learning media needs to be packaged more attractively, since using video-based media will increase students' motivation, interest, and acquisition of practical skills.

Learning is very important for human life because through learning people become aware of many things. Learning is a dynamic process in which individuals make individual internal adjustments and develop the necessary skills. In order to increase the effectiveness of learning, therefore, learning itself must be the starting point and other concepts, such as teaching and curriculum or teaching techniques, must build on it. Learning is defined as a change in behavior resulting from experience or mechanistically as a change in the organism resulting from experience (Houwer et al, 2013, p.2). Learning is not just reading books and school, but also the result of the experiences we have had.

Each student has different abilities to do something, including writing skills. There are students who like to write and there are those who don't like to write. One of the materials that can improve students' writing skills is "Short Messages". Text messages are short messages. Usually, students like to read short messages because they can read them very quickly or in a limited time. Students can write short messages according to their knowledge or experience, or based on what they have read (Yulianza, 2011, p.51). Students can express



their ideas in writing. Let students begin to write simple and easy things freely. Simple short messages can give students ideas for writing. Research in the field of learning to write was carried out in different clusters.

There are several points that must be considered when discussing the developing learning video material for teaching short messages at Junior High School. Clusters are provided in this study from many references, including **Students' EFL Learning** (Senturk, 2019, Pena & Torres, 2016, Khongput, 2020, Kocatepe, 2017, Khodary, 2017, Alwehaibi, 2015, Solano, et al, 2019, Tomakin, 2020, Noprianto & Purnawarman, 2019, Sadeghi & Khonbi, 2012), **Teaching English Writing** (Wei, 2018, Fatimah, et al, 2021, Gao, 2019, Chen, 2021, Abdallah, 2014, Dan-ni & Zheng, 2010, Cheung, et al, 2021, Jing, 2015, Akinyenye & Pluddemann, 2016, Ariyanti, 2016), **Learning Video Materials** (Bajrami & Ismaili, 2016, Wang, 2014, Vascovic et al, 2014, Chmel, 2015, Ansarian, et al, 2016, Woottipong, 2014, Vaganova, et al, 2019, Divsar, et al, 2014, Afriansyah, 2019), **Short Message Materials** (Suwantarathip & Orawiwatnakul, 2015, Deventer, et al, 2011, Gasaymeh & Aldalalah, 2013).

The above research found that video learning media are not yet as popular as other learning media. This is due to a lack of expertise to create complete and interesting videos. This needs to be addressed because, after all, teachers play an important role in the implementation of a learning process activity, especially in the current era of technological advancement. The solution to this problem is that teachers are sought to participate in educational video media training (Gunawan, et al, 2019, p.89). This is how video media can continue to grow better.

The concept of learning has not been comprehensively defined in previous research. For example, Nurjanah (2021, p. 32) defines the concept of learning from different perspectives and uses it to shape her research. Psychology, neuroscience, sociology, and ELT have been used to formulate and define the concept of learning. As such, previous research has missed the importance and appropriate condition of video as learning media that understand

the concept of learning itself. Therefore, in this current research, the concept of learning is defined and used to frame the video as a product of research and development.

In addition, the material contained in the research is still not specific, because there are still many discussions about Short Message Service, not about Short Messages intended for students. Thus, the points mentioned above are very important to be addressed in order to create the development of video learning media regarding short message material that is good and interesting for students.

## **1.2. Identification of the phenomenon**

In connection with the background that has been explained, the following problems can be identified:

1. Since the Covid-19 pandemic, students' enthusiasm for learning has decreased due to learning media that do not attract students' attention so that students are lazy to study.
2. The lack of development of video learning media is caused by several factors, namely the lack of teacher ability in making good and interesting videos and the lack of existing facilities.
3. Writing skills materials that are rarely taught in video form.

The researcher chose this problem because it can be identified in order to make the development of video learning media better and more interesting, because it was found that students were not interested in learning English because the media was monotonous and less interesting, especially in learning English. Teachers also need to be given training so that they can channel their knowledge through media that is interesting and easily understood by students. In addition, the author found a new idea to teach writing skills in the form of 'Short Messages' material through video learning media. Because based on the studies that have been read, video learning media tends to be speaking skills and listening skills, no one discusses writing skills in learning through video media.

So based on the identification of the research, the authors develop video learning media to make it more interesting and can increase students' learning motivation.

### **1.3. Delimitations and focus of the study**

Consistent with the identification of the themes/phenomena, the research focus is on the development of learning media videos related to short news material. The decision was made taking into account the importance of developing video learning media, useful to improve students' writing ability and comprehension of short message materials. The author assumes that several factors must be considered for video learning media to develop properly. Videos can present moving images and sounds to students. Videos' ability to visualize material is very effective in helping teachers convey dynamic material. For this reason, the author selected video learning materials to be developed in this study. The video to be developed must be attractively designed. The author takes animated story video as a video type used as a learning medium. Animated video is a collection of still images, which are then projected into moving images that seem to live according to the character of the image, showing more varied videos with attractive and colorful images, capable of increasing students' learning attractiveness (Agustien et al, 2018). Using these animated videos, students can master learning outcomes more easily and effectively.

### **1.4. Research questions**

1. What are the characteristics of good learning video materials to use as writing skill learning?
2. How to develop short message as learning video materials?

### **1.5. Aims of the research**

1. To explain what are the characteristics of good learning video media to use as writing skill learning.
2. To explain how to develop short message as learning video materials.



## **1.6. Significances of the research**

The analysis of this research consists of two perspectives, theoretically and practically, which are expected to provide meaning for the readers. Theoretically, this study discusses writing skills, especially in the "Short Message" material for the purposes of Teaching English as a Foreign Language (TEFL) which is expected to increase the reader's knowledge regarding learning English.

Practically, the results of this study are expected to provide researchers with useful new insights about the development of video learning media on the "short message" material, can help students improve their writing skills through video learning media, can motivate teachers to advance their skills in dealing with media, increase the students' motivation to learn, and the results of this study should also help to find references for further research.

## **1.7. Theoretical foundation**

### **1.7.1 Learning English**

Language is a tool used by people to communicate with each other and to provide information so that the information provided can be conveyed. Language serves to channel ideas, ideas, feelings, and much more. Many languages are spoken in the world. There are those as a first language, a second language, and also a foreign language. However, there is one language that can unite countries around the world and that is the international language known as English. English is currently used in various aspects ranging from technology, politics, education, and also business (Putra, et al, 2020). This is proof that English is very important in this modern era. English is not only a means of communication but also plays an important role as an accommodation to help people adjust to a broader future, especially in jobs that require a good command of English.

Learning English is very important because it enables you to communicate effectively with your relatives around the world. (Nishanthi, 2018). This proves that learning the English language can make it easier for us to

communicate with a wider spectrum. It is therefore important to learn English from an early age. Basically, learning a language is an awareness, not a requirement. Since language is a means of communication between individuals and between people. So it is important to learn a language. Both mother tongue, regional language, Indonesian and foreign languages including English. Practicing the use of the English language, e.g. B. how to pronounce a word or a phrase and when to use it will at least help children understand language functions more deeply. Using good, interesting, and fun methods and media in teaching English will keep children happy throughout the learning process.

Countries that do not use English as their first language often struggle to learn English, especially if they don't learn it early. This is caused by several factors, including exceptions to the rule, the pronunciation of these words is sometimes strange and different, many words sound the same but have different meanings and synonyms that other synonyms in a sentence cannot always replace. And the last one is an idiom, which is a unique expression that is sometimes difficult to understand (Kurniawati, 2016, p. 101). In addition to the English language factor itself, there are other factors that influence us when learning English. Factors that cause difficulties in learning English are declining health or illness, lack of training to improve English listening either with their classmates or with native speakers, and lastly, the motivation they have to progress in learning English.

Learning English certainly has several qualities that need to be known, including the first, it's fairly easy to understand, English is one of the simplest and easiest natural languages in the world. But of course, that is relative. It depends on the ability and previous language learning experience of the learner. Nonetheless, it can be said that English is a relatively easy language to learn, understand and pronounce compared to highly complex languages such as Japanese, Arabic, Korean, and Mandarin. The second, of course, is learning English using the Latin alphabet. This is the most universal alphabet, short and direct (only the Greek alphabet is shorter and simpler). Presented even in its



cleanest form as a real alphabet with only 26 basic letters. Third, English has a simple inflection, which is the name for extra letters added to nouns, verbs, and adjectives in various grammatical forms. The fourth is acceptance. Learning English has an important feature, which is the acceptance of accepting and adopting of words from other languages. English has accepted and adopted words from Asian, European, African, Indian, Japanese, Chinese, and other languages. Also, English has accepted words from classical languages such as Latin, Greek, and Sanskrit. Fifth, word order is (in general) fixed. Most English sentences (clauses) are in SVO word order. This means that the subject comes before the verb, which comes before the object. There are other word orders in English, but the SVO order is by far the most common, making it easy for learners to understand.

Learning English certainly has different ways including reading, listening, speaking, and writing, these four ways need to be integrated in a balanced and effective way. These include: Hearing and speaking: These two skills are closely related and work simultaneously in real-life situations. So, the integration of the two aims to promote effective oral communication. This integration ensures realistic and targeted communication. Reading and Writing: These skills form strong relationships with each other. They are tools to achieve effective written communication. Students need opportunities to develop their reading and writing skills. Developing students' literacy skills require students to gradually meet the challenges of the reading material and writing assignments. The goal is for students to be able to read and write effectively (Sadiku, 2015, p.89). In fact, integrating listening and speaking with reading and writing will turn learners into listeners, speakers, readers, and writers so that they can communicate effectively. This is a gradual process.

### **1.7.2 Teaching Writing**

Regarding language skills, there are 4 skills that need to be understood. This includes speaking, listening, writing, and reading. This study discusses one of them, namely writing. Writing is a process by which people can express ideas

from what they read, hear, and talk about. However, not everyone has good writing skills. For this reason, teaching by other people/teachers is necessary for students in schools to know and improve students' writing skills. Teaching writing has its own challenges for teachers as many students in Indonesia still struggle to learn writing skills. However, not everyone finds it easy to put ideas down in writing. Writing is the process of expressing ideas or ideas as described in a medium. Writing is often neglected in early grades, although data consistently shows that many students struggle in this area (White & Hall, 2014). Writing is considered easy, although it requires careful thought.

As a result, writing becomes a complex task for students to complete, even for students. This is because writing involves highly integrated activities and processes such as cognitive effort, attentional control, and self-regulation to make it coherent and meaningful (Graham & Harris, 2003). Writing is an aspect of language competence that is very important as students are helped to develop other language skills by teaching writing skills from teachers (Dantes, 2013, p. 72). Writing tradition can be interpreted as a habit of expressing ideas or opinions in writing. While teaching writing is a process of teaching writing skills that is very important and always continuous. People can express ideas about writing from what they read, hear, and talk about from other people.

The writing strategy consists of eight stages (Steele, 2004). Stage one (brainstorming) generates ideas through brainstorming and discussion that help stimulate students to write, unleash creativity, and provide vocabulary through inspirational ideas. In phase two (planning/organization), students exchange ideas in the form of notes and evaluate the quality and usefulness of their ideas. In phase three (mind mapping), students organize ideas into a mind map, spidergram, or linear shape. This stage helps create hierarchical relationships of ideas that help students structure their texts. In phase four (writing the first draft), students write the first draft. This is often done in pairs or groups. In this phase, the strategies developed in the brainstorming are combined. Students should focus on getting ideas down on paper without worrying about spelling or

grammar. In phase five (peer feedback), drafts are shared so that students become readers of each other's work. By responding as readers, students develop an awareness that an author is producing something for others to read, and can thus improve their own drafts. Feedback improves the author's draft and develops the reader's understanding of good writing. In phase six (editing), drafts are returned and improvements are made based on peer feedback. Responses to the letter come from a variety of sources: self, teachers, friends, and peer response groups. Stage 7 (final draft), the final draft is written. The final draft must be ready for publication and the student must be satisfied with the way the work is read. This will help motivate them to write. Phase Eight (teacher evaluation and feedback): Students' writing is evaluated and the teacher provides feedback. The writing material included in this study is the short message material. Short messages are divided into 3 types (Adnin, 2015):

1. Memo: Memos are important notes, usually written to convey information in a succinct manner. Memos usually consist of just 2 to 3 sentences that are short but dense and informative.
2. SMS (Short Message Service): Messages which are often sent over the phone, are a type of short message. This message is slightly longer than a memo. SMS also includes phrases that are dense and informative.
3. Greeting cards: Greeting cards contain greetings for events such as birthdays, births, promotions, etc. Greeting cards can be tailored to suit the needs.

### **1.7.3 Video Media**

Learning media is a means to produce good learning, so interesting media is needed to support teachers in delivering learning materials. Learning media have two important roles, there are media as teaching tools (dependent media) and media as learning resources used by students independently (independent media) that are systematically aimed at achieving learning. With the help of the use of learning media, improved learning outcomes can be achieved. The learning media used must of course correspond to the material to



be conveyed. There are several factors that drive the selection of educational media, including limited local resources, meaning that if educational media is not available locally, it must be purchased or made by hand, then budget, manpower, and facilities must be available if media is needed, purchased or self-made, the next factors related to flexibility, practicality and durability of instructional media are long-used (Sofyan, et al, 2019). It means that media can be used anywhere and anytime by using any devices that are nearby, and they must be easy to carry and move, and the last is the effectiveness of the media used for a long time will.

There are so many media that can be used in learning, one of them is video media. Video media are media that present audio and visual messages that contain learning messages that contain concepts, principles, procedures, and theories for applying knowledge to aid in the understanding of learning material. Videos can be an invaluable tool for language learning (Woottipong, 2014, p. 56). The first major advantage of using videos is that they can provide examples of real-life situations. Learners can use videos to learn how to use language usage by age and how to focus on the relationship between language usage and paralinguistic features, including conveying moods and feelings. Mirvan (2013, p. 89) claims that using video material in the classroom can increase learning motivation because it can expose them to different situations that can help them understand similar situations in real life.

There are different types of video learning media including (a) story videos, the type of video stories that contain topics that help students remember the topics. Story Videos allow teachers to create videos that are more complete but attractively packaged. With themes that use the video storytelling style, students will be able to understand the video more easily and enjoy it to the end. Make videos that are informative but not rigid. (b) Documentary video describing an event that becomes the focus of an objective story or fact in life used as data or documentation. (c) news video, a type of news video containing facts and current events. Teachers can show high school students video footage

of legal news. The selected legal news videos should be close to everyday life.

(d) video presentation, video presentation not only shows that the teacher is explaining the material or explaining an idea. It is a video presentation rich in images and colors. This type of video presentation usually feels slightly boring. So the success of a shareable or viral video is to follow the latest trends, know who the audience is and work together. This allows teachers to create video presentations that not only explain the material but also select topics and create timely images that will stick with the students. In addition, teachers can also create video presentations by collaborating with peers or even selected students.

(e) Full learning video learning theory, this kind of video surely contains the whole learning theory. Although it may seem boring, a very complete video explaining the content of the material can make it easier for students to complete assignments.

#### **1.7.4 The Relationship Between Learning English, Teaching Writing, And Video Learning Media.**

I believe these three topics are related. In this broad context of learning English, there are 4 aspects, namely speaking, listening, reading, and writing. One aspect is writing skills. How do teachers teach writing material that requires serious learning but is combined with video media. This will create new research where writing skills will be taught through video media, which is usually video media used as a media for learning speaking and listening.

### **1.8. Previous Studies**

The first previous study by Sari & Setiawan (2018) from Sebelas Maret University. This study explains that the development of the learning media was successful and suitable for use in the learning process. It is based on validation tests by experts, and limited and extensive tests that have been carried out. This study uses an R&D research design up to the expert validation stage. Also, internet-based media using the Moodle approach has been well and positively received by these students based on the results of limited testing and extensive testing. The results of the limited test gave an average passable result of 83.83%,

while for the extended test results an average of 77.95 means the medium is passable. In this study, the researcher found that the R&D design used reached the step of expert validation, where the product was not tested in school learning at this step.

The second previous study by Sabtu, et al. (2018) from the Journal of Physics: Conference Series. In this study, it was found that interactive multimedia in the design/media aspect fell in a very valid category, the digital content/materials management aspect in a very valid category, the teacher's practice in a practical category and the practicality of the students was in a very practical category. Interactive multimedia is recognized as effective in improving student learning outcomes. This research is the same as previous research using a three-step research and development design, and the product is not tested in school learning.

The third previous study by Mubar (2015) from the English Education Department of UIN Alauddin Makassar. This study presented interesting and many colorful images that present local content to the students. English language material, the material developed by the researcher is deemed to be able to meet the needs of the students in learning to speak in relation to the daily activities of the students. In particular, in accordance with government regulations. By adopting and adapting many sources of language material, it is believed that the material can improve students' language skills. This research is the same as previous research, which is to use a three-step research and development design, and the product is not tested in school, only to the point of validation by experts.

Of the three previous studies, this research used three steps of Research and Development design, only up to the steps of expert validation, and was not tested. In fact, if more than three steps are used, the product will be more useful for students, and teachers can also provide new innovations for learning.

The fourth previous study by Sartika (2017) from the Department of English Education, Indonesia University of Education. In this study, it was



explained that the word wall strategy helped students write a descriptive text. This medium generates a positive response from the students. Therefore, English teachers need to be able to make the teaching and learning process as attractive as possible. It aims to instill in students joy, enthusiasm, and interest in participating in the teaching and learning process. Teachers can use word walls as a medium to teach the learning process as it can help students learn vocabulary more easily to provide keywords for students to develop their ideas in writing activities. In fact, the use of word wall learning media for writing skills is considered to be very common, it would be better if it was done differently, such as video learning media for writing skills.

The fifth previous study by Muammar Khaddafi (2017) from the State Islamic University of Raden Fatah, Palembang. In this study, it was explained that the author noted the students' difficulties in writing narrative texts. Students also feel bored while writing due to the lack of interaction between students and teachers. Then the author formed an experimental group that used a round-table strategy to assist students in writing narrative texts. The result is that the roundtable strategy can increase student narrative writing results, and there is a difference in student narrative writing results for students taught using the roundtable strategy and those taught using Strategies commonly used by teachers are taught. That's a great achievement. But it would be even better if not only students were given a strategy to improve their learning ability, but teachers also needed to be equipped with skills such as being enthusiastic to learn.

The sixth previous study by Yulianti, et al. (2019) from the Professional Journal of English Education. In this study, it was explained that mastery of vocabulary and grammar increased students' writing skills. This is reflected in their increased activity, curiosity, and knowledge. However, teachers need to try many strategies to improve students' skills and understanding. A good strategy to improve students' writing skills is to use brainwriting. This method can reduce students' boredom because it uses a monotonous method. However, it seems that

it would be better if flavored with technology-based media as today's students live in a digital age where the use of technology is almost constant.

The seventh earlier study by Laksmi, et al. (2021) from Ganesha Education University, Singaraja. In this study, it was explained that animated videos significantly increase students' motivation to learn English while learning online, as they present different types of information features suitable for high school students/young learners and provide audio-visual content. In addition, animation videos as learning media can also help teachers to teach English online. However, it should be noted that video learning media can not only be used for online learning. Video learning media can also be used for face-to-face learning.

The eighth previous study by Kamarullah, et al. (2018) from Syiah Kuala University, Banda Aceh. In this study, it was stated that there was a significant difference in auditory performance between students taught with video and students taught with tape. This conclusion is based on the results of the t-test versus the t-table. This suggests that students taught with English video learning materials achieve higher scores than students taught with tape. In fact, it would be more interesting if it differed from other researchers, such as B. The use of video learning media to improve students' hearing performance.

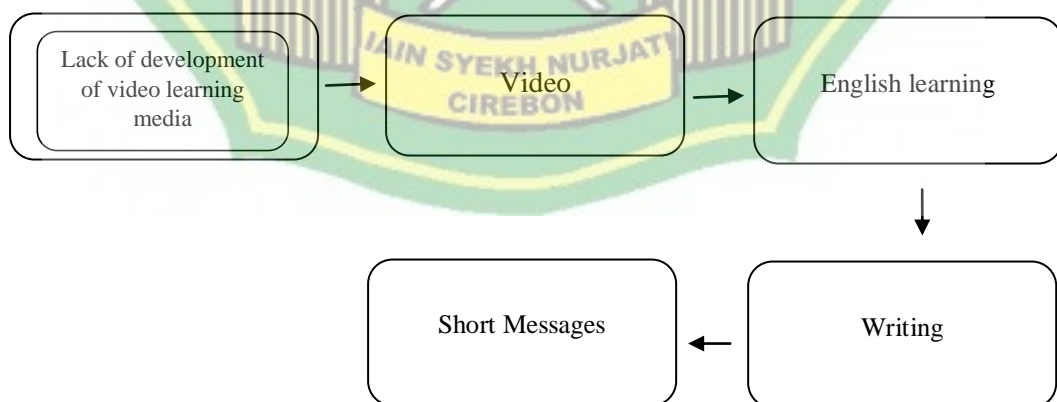
The ninth previous study by Pratama & Karisti (2018) by SMP Bina Insani Bogor, English Journal. In this study, it was stated that students showed a positive attitude towards using vlogs in English lessons. They found the use of vlogs to be very useful as a supplement to learning English. Vlog is a social media site that is safe for studying and useful for learning English, especially speaking. Most students find that using Vlog leads to good performance in speaking classes. Students also responded positively to using vlogs in English classes. But this study did not explain in detail what material was taught using video blogging media, so it was too broad to mention that it could improve

speaking skills. It is possible that the material taught can improve other skills, not just language skills.

The latest previous study by Kamelia (2019) from the Journal of Ultimate Research and Trends in Education. In this study, it was stated that the students showed a positive response. However, the teacher as facilitator must be able to prepare videos according to students' needs, especially to encourage students to be active. There are three phases in this study, the first is the pre-activity (apperception), the second phase is the main activity, in this phase, the teacher starts making presentations about the material via video, then the last phase is the post-activity This step is activity before the end of the lesson, including asking if the students should understand and complete the material, while the teacher asks several questions to measure the level of students' understanding. However, this study did not specify for which skills the video learning medium was used. It would be better if it was explained specifically, especially the material used, namely expressing congratulations and hopes, which could be classified as writing skills/speaking skills.

### 1.9. Frame of thought

Figure 1.1 Frame of Thought



Relationship between teaching writing 'short message' using video materials, the importance of learning English is that it is compatible with



language learning, one of which is writing skills in language learning. Therefore, learning English is directed to writing. Video materials are also directed to writing because they want to create a new model of learning that video media is not only for speaking skills and listening skills, but also for writing skills.

#### **1.10. Research Method**

This type of research is R&D (Research and Development) research. Because this belongs to the type of development research. Research development is a process of developing and validating a product to be used in education. In education, R&D is a process of developing teaching materials, carried out through a series of researches using different methods in a cycle that goes through different phases (Borg & Gall, 2003, p.571). Device training, typically developed through R&D, are learning tools using technology, particularly ICT, which can be used in both education and training.

##### **1.10.1 Research design and steps of the research**

In this study, the researcher adapt the steps from Gall, Borg, & Gall (2003, p.571):

1) Step 1 (Carry out need analysis)

The first step is to collect information about the needs analysis of students and teachers and about the product to be developed and the development technique

2) Step 2 (Planning)

In the planning phase, the main thing to consider is the purpose of product development, to then draft the initial design of the product according to the design elements.

3) Step 3 (Developing the Initial Form of the Product)

The initial product is developed according to the designs, plans and development goals. Before testing, the product is validated by relevant experts. After passing the validation check, suggestions or input from experts are used to improve the product.

### **1.10.2 Source and type of data**

Source of data refers to the provenance of research data collected and collected by researchers. One or more data sources may be required when answering research problems, this depends heavily on the necessity and adequacy of the data to answer research questions. Researchers took data from questionnaire studies and interviews. The subjects of this study were an expert from the university, 28 students, and two English teachers in junior high school.

### **1.10.3 Data collection techniques and instruments**

Data collection techniques can be performed in different environments, different sources, and in different ways. For example, when viewed from the environment, data may be collected in a natural environment; B. In a specific environment with different respondents, seminars, discussions, etc. Viewed from data sources, data collection can use primary sources (data sources that provide data directly to data collectors) and secondary sources (sources that do not provide data directly to data) by other people or by documents. Data collection techniques can be observation, interviews, questionnaires, documentation, and combinations.

#### **1.10.3.1 Questionnaire**

Questionnaires are the most common survey method. The questionnaire contains a list of open and closed questions answered by the respondents (Kabir, 2016). The questionnaire is a data collection technique in which respondents are asked questions or written explanations in order for them to be answered/received answers (Sugiyono, 2013).

The characteristics of the questionnaire are divided into 3:

1. The list of questionnaires is prepared in a uniform manner, without discriminating between correspondents and others.
2. Such information will be obtained through reasonable research.

3. The list of questions is usually built in order and the level of the questions varies.

The type of questionnaire used in this study is an open-ended questionnaire, there is a questionnaire that is presented so that respondents can provide the reasons according to their needs and circumstances in the column provided. There are 9 questions answered by 28 students.

#### **1.10.3.2 Interview**

An interview is a meeting of two people to exchange information and ideas through questions and answers so that the meaning of a given topic can be constructed, and with interviews researchers learn deeper things about the participants while interpreting situations and phenomena occurring that is impossible to do through observation can be found (Sugiono, 2009, p.317). The researcher uses the semi-structured interview type as a data collection technique. In this interview, the data collectors prepared research tools in the form of written questions for which alternative answers were prepared, the respondents were asked the same questions, which the data collectors then recorded. The interview guide serves as an instrument. In this study, the researcher interviewed an expert, students, and English teachers in Junior high school.

#### **1.10.4 Data analysis technique(s)**

Data analysis techniques in this study were interviews and questionnaires. Analysis of the data used in this study followed the steps:

1) The researcher conducted a semi-structured interview, which was used to allow the interviewer to ask questions that did not have to follow the established interview schedule but had to remain within the framework of the entire interview. Therefore, in the process of semi-structured interviews, the interview guide is always used, which is a grouping of research topics and informal questions that the interviewer can ask in different ways. Interviews were conducted with two teachers, five students, and 1 expert.



2) The researcher answered the questionnaire. It consists of 9 questions to be asked of 28 students. The questions are generated from the previously prepared instruments. The results from the questionnaires are collected and then the essence of the answers are taken.

The research steps in data analysis is divided into three stages, there are data reduction, data display, and conclusion drawing (Sugiyono, 2015, p.335).

#### a. Data Reduction

Summarize the most important points and concentrate on the essentials. Thus, the reduced data will provide a clearer picture so that the final conclusions from the research can be drawn and verified.

#### b. Data Display

Data presentation is usually in the form of narrative text. In order to be able to better understand what happened, to design further work on the basis of what has been understood or to check the data displayed.

#### c. Conclusion Drawing

Conclusion drawing and verification. Findings are in the form of descriptions or descriptions that were previously unclear, so that after research they become clear.

In data analysis activities, what researchers really need to consider is verifying data or continuously checking data to ensure that that data analysis is still based on the data. The data are described in sentences to provide clear and detailed information. The data analysis technique in this study was performed by reflecting the results of student questionnaires and the results of interviews with teachers and students at middle schools who are also experts from the university. The data obtained in this study are the results of questionnaires and interviews.

### 1.11 Research timeline

**Table 1.1**  
*Research Timeline*

No	Activities	Month															
		March				April				May				Juni			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
1	Preparing research proposal																
2	Instrumental development of research proposal																
3	Instrumental try out of research proposal																
4	Revision of research proposal																
5	Asking agreement to the principal of the school for doing survey																
6	Survey in the school																
7	Analyzing data from questionnaire and interview																
8	Sorting data from questionnaire and interview																
9	Making data conclusion																
10	Finalization of research																