

## CHAPTER II

### REVIEW OF RELATED LITERATURE

#### 2.1 Some Pertinent Idea

##### 2.1.1 Concept of Perception

Perception is an important element of the thinking process. This is due to the perception that they play a role in opening and providing an early-stage thinking screen.<sup>1</sup>We know about our surroundings because we are able to experience them through perception; we know about scientific phenomena because they are observed.<sup>2</sup>Based on this understanding, the intended perception is a thought process to get new information and record it as something that is made a new perspective on something.

Perception is a process by which individuals organize and interpret sensory impressions in order to give meaning to their environment. However, what we perceive can be substantially different from objective reality. The world as it is perceived is the world that is behaviorally important. So that perception is something that is obtained through stimulus situations, circumstances or everything that can provide a response to the work of reason to be recorded as a new thing.

A number of views and theories have been widely expressed in several books or some literature. Perception theory is a term to describe the application of neurological research and accept the principles of psychology in studying visual

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<sup>1</sup>Joanes J, *et al.*, *Persepi & Logik* (Malaysia: Universiti Teknologi Malaysia, 2014), p.1.

<sup>2</sup>Mohan Matthen, ed, *The Oxford Handbook of Philosophy of Perception* (United Kingdom: Oxford University Press, 2015), p.1.

communication. Perception theory deals with how the brain receives information, processes it, and uses it. In perception theory, the theoretical approach will add new information to study visual communication and help the human being about the effectiveness of communication theory. He came from social research. Ultimately, to be useful, all communication theories and all assumptions about how humans process images and their effects must be compatible with neurological research. The perception approach to communication theory recognizes the importance of emotions in processing all communication, and especially visual targets that have parallel communication.<sup>3</sup>

Perception theory provides an overview of how perception is formed and the most relevant theories and explanations of perception as a process acquiring and processing of information may be divided into two basic groups, according to the direction of information flow. The first is a group of theories that suppose using only bottom-up processes when acquiring and processing sensory data. By bottom-up processes, we mean processes that start at the lowest sensory levels that means (from the cortex's point of view) at the most distant levels of cognitive apparatus and then they gradually lead to more complicated and complex processes which take place in higher (cortical) structures which are responsible for more global and abstract ways of thinking.

On the contrary, the top-down theories suppose that in the process of discrimination, but mainly when processing sensory stimulus, we start by “feeling” sensory data on receptors, but their processing presumes a downward influence of higher cognitive contents which organize and later determine them. Such influence

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<sup>3</sup>Joanes J, *et al.*, *Persepi & Logik*, 2014, p.5.

we can call the top–down effect. The core of this approach is the fact that in order to process sensory stimulus, one needs to have prior experience or knowledge, or other influences which help to organize and form cognitive contents.<sup>4</sup>

### 2.1.2 Factors that Influence Perception

To understand what we have in common in our interpretations of reality, we need to begin with the factors that influence our perceptions. A number of factors shape and sometimes distort perception. These factors can reside in the perceiver; in the object, or target, being perceived; or in the situation in which the perception is made. In essence, the situation does not always seem to be the same as what actually happened but the experience that we have gained as a benchmark for something similar and looks the same.

When you look at a target, your interpretation of what you see is influenced by your personal characteristics, attitudes, personality, motives, interests, past experiences, and expectations. For instance, if you expect police officers to be authoritative, you may perceive them as such, regardless of their actual traits.

The characteristics of the target also affect what we perceive. Loud people are more likely to be noticed than quiet ones. So, too, are extremely attractive or unattractive individuals. Because we don't look at targets in isolation, the relationship of a target to its background influences perception, as does our tendency to group close things and similar things together. We often perceive women, men, immigrants, Caucasians, Aboriginal people, Asians, or members of any other group that has clearly distinguishable characteristics as alike in other, unrelated ways as well. We

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<sup>4</sup>Andrej Dèmuth, *Perception Theory* (Trnava: Faculty of Philosophy and Arts Trnava University, 2013), p.23.

also have a broad tendency to perceive people who we think are similar to us in positive ways and people who we think are different from us in negative ways.

Context matters, too. The time at which we see an object or event can influence our attention, as can location, light, heat, or situational factors. For instance, at a club on Saturday night you may not notice someone “decked out.” Yet that same person so attired for your Monday morning management class would certainly catch your attention. Neither the perceiver nor the target has changed between Saturday night and Monday morning, but the situation is different.<sup>5</sup> In the formation of perception, there is a mixture of various aspects which then form a mind pattern to describe the object. This may provide different descriptions for some individuals of the same object because of differences in experience and the combination of information on the object.

### 2.1.3 Learning English

Teaching and learning are special forms of communication. They operate when communication is accompanied by heightened levels of consciousness among teachers and learners. They are shaped, that is, by the wishes, intentions and values of teachers and learners. Further, teaching and learning are also shaped (or constrained) by social rather than biological circumstances - the cultural assumptions, conventions and codes that surround, yet also separate, the teacher and the learner.<sup>6</sup> Teaching and learning give a chance for transfer and receive lessons and get the best value for

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<sup>5</sup>Stephen P Robbins, Timothy A. Judge, and Katherine E. Breward, *Essentials of Organizational Behaviour* (Canada : Pearson education, 2016), p. 107.

<sup>6</sup>David Hamilton, *Learning about Education: An Unfinished Curriculum* (Philadelphia: Open University Press, 1990), p.23.

students and teachers and make it as a good way to have social and emotional impact, so it will very important to have a good situation on the process.

Teaching and learning English is, at its richest, an energizing, purposeful and imaginatively vital experience for all involved, developing youngsters' competence, confidence and creativity as well as building positive attitudes to learning. At its poorest, English teaching and learning can be a dry, didactic experience, focused on the instruction of assessable skills, and paying little attention to children's affective or creative development as language learners and language users.<sup>7</sup> Education in learning must receive special attention from the teacher in order to provide effective and efficient learning and an innovative learning process that will be more comfortable and solemn so that there is no boredom and longing to always learn.

#### **2.1.4 Cognitive Theory**

There are several learning theories that have been advanced by experts and one of them is cognitive theory. Cognitive theory studies aspects that are not observed such as knowledge, meaning, feelings, desires, creativity, hopes and thoughts. Each learning theory has its own characteristics and for the characteristics of cognitive learning, including:

1. Concerned with what is in students / students with diversity and difference (nativistic),
2. Caring in a whole (Holistic),
3. Concerned about the balance in students (dynamic balance),
4. Regarding current conditions, by including issues of gender and social inclusion,

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<sup>7</sup>Teresa Cremin, *Teaching English Creatively* (Newyork: Routledge, 2009), p. 1.

5. Concerned about the formation of cognitive structures,
6. In solving problems, the characteristic is insight.

There are several figures who support and contribute to cognitive theory, including:

1. Gestalt Theory from Koffka, Kohler, and Wertheimer

Gestalt means the arrangement (configuration) or form of understanding for the stimulator situation. In Kohler's theory stressing the importance of mental processes based on the assumption that the subject reacts to a meaningful whole. Kohler argues that there are penalties for transformation and the law of organizational perception which is the key to understanding learning. It also suggests the concept of understanding (insight). Learning is formulated as a constellation of stimulus, organization and reaction.

2. Learning Theory According to Jean Piaget

Learning is knowledge as a result or the result of adaptation and interaction with the environment. According to Jean Piaget, aspects of intellectual development include structure, content, and function.

Structural aspects, namely there is a functional relationship between physical actions, mental actions, and the development of children's logical thinking. Actions towards the development of operations and subsequent operations towards the level of structure development. The structure called schemata is a high level mental organization one level higher than surgery. Aspect of content, meaning a typical pattern of children's behavior that is reflected in the responses given to various problems or situations they face. The contents of the child's mind for example change the ability to reason from childhood to large, the child's conception of the natural

environment, etc. Aspects of function, Piaget considers that the function of the intellect from 3 perspectives, namely; the fundamental processes that occur in interaction with the environment, the way in which knowledge is organized, and the quality of thinking is different at various stages of development.

### 3. Meaningful Learning Theory from Ausubel

This cognitive structure will determine the validity and clarity of meaning that arises when new knowledge enters, including the process of interaction. If the cognitive structure is stable, clear, and well-organized, valid and clear meanings will emerge and tend to persist, so that meaningful learning processes occur. Conversely, if the cognitive structure is unstable, doubtful and disorganized, the cognitive structure tends to inhibit the process and retention of meaningful learning, so what happens is the process of memorizing learning.

### 4. Learning Theory from Robert M. Gagne

According to Gagne (1979) learning is a complex activity. By learning someone will gain skills, knowledge, attitudes, and values. All of this is behavior as a result of learning called ability. This ability arises through stimulation that comes from the environment and cognitive processes carried out by people who learn. Thus, learning can be interpreted as a cognitive process that changes attitudes through environmental stimulation.

Furthermore Gagne (Winkel, 1989) states that learning involves three components, namely internal conditions, external conditions, and learning outcomes. Learning is the interaction between students' internal conditions in the form of potential and external conditions in the form of stimuli from the environment through students' cognitive processes. With this cognitive process abilities or abilities

(capabilities) will be formed as a result of learning which includes verbal information, intellectual skills, cognitive strategies, motor skills, and attitudes.<sup>8</sup>

### 2.1.5 Media

Media is based on the origin of the word from Latin, medium, which means intermediary. The media can, therefore, be interpreted as an intermediary between the sender of information that functions as a resource and receiver.<sup>9</sup> A media is intended to convey information more efficiently and more accurately so that the results received are more effective.

Teachers are required to be creative in using and utilizing media available at school, or do not rule out the possibility that teachers will develop media that are tailored to the expected learning objectives, if the media is not yet available. The teacher must have an adequate understanding of learning media, including: (Hamalik, 1994 :6).

1. Media as a communication tool so that learning is more effective;
2. The function of the media in order to achieve learning objectives;
3. The ins and outs of the learning process;
4. The relationship between learning methods and media;
5. The benefits of media in learning;
6. The selection and use of instructional media;
7. Various types of learning media tools and techniques;
8. Learning media in each subject;

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<sup>8</sup>Syarifan Nurjan, *Psikologi Belajar* (Ponorogo: Wade Group, 2016), p. 93-116.

<sup>9</sup>Benny A. Pribadi, *Media & Teknologi dalam Pembelajaran* (Jakarta: Kencana, 2017), p. 15.



9. Business innovation in learning media.<sup>10</sup>

Some considerations for media selection as stated by Dick and Carey: Availability of local sources; Whether to buy or produce their own funds, personnel and facilities are available; Factors relating to the flexibility, practicality and durability of the media used for a long period of time; Effectiveness and efficiency of costs in a fairly long period of time even though it seems expensive but may be cheaper than other media that are only disposable.<sup>11</sup>

There are six steps teachers can take in teaching that use media, namely:

1. Formulate teaching objectives by utilizing the media
2. Preparation of teachers by selecting and determining which media will be used to achieve goals
3. Class preparation, students and classes are prepared before learning with media begins. The teacher must be able to motivate them to be able to assess, analyze, and appreciate the lesson using instructional media.
4. Steps in presenting lessons and using media. The teacher is played by the teacher to help her work in explaining the lesson material.
5. Steps in student learning activities. The use of media by students themselves by practicing it or by the teacher directly either in class or outside the classroom.

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<sup>10</sup>Husniyatus Salamah Zainiyati, *Pengembangan Media Pembelajaran Berbasis ICT* (Jakarta: Kencana, 2017), p. 61.

<sup>11</sup>Asnawir and M. Basyiruddin Usman, *Media Pembelajaran* (Jakarta: Ciputat Pres, 2002), p. 126.

6. Step evaluation of teaching. The extent to which teaching objectives are achieved, and at the same time can be assessed the extent to which the use of media as a tool can support the success of student learning processes.<sup>12</sup>

### 2.1.6 Technology and Internet Communication

According to M. Maryono Technology is the development and application of various equipment or systems to solve problems faced by humans in every day. Jacques Ellil argued that Technology is a whole method that rationally leads and has the characteristic of efficiency in every human activity. While according to Gary J Anglin Technology is the application of behavioral and natural sciences and other knowledge in a systemic and systemic way to solve problems.<sup>13</sup> So it can be concluded that the technology aims to facilitate its users so that the results obtained are better.

It is easy to argue that digital technology ever increasingly mediates our relationship to the world, whether it be through the telephone, television, computer, or the Internet. Multimedia has, since the 1990s, taken its place in the consumer commodity marketplace, one of the most recent in successive waves of new media that have arrived upon us with much hyperbole.<sup>14</sup> The numbers of companies or technology producers that compete in all forms of life have led to affordable product offerings in terms of economics and ease of work so that changes in traditional

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<sup>12</sup>Pupuh Fathurrohman and M.Sobry Sutikno, *Strategi Belajar Mengajar: Melalui Penanaman Konsep Umum & Konsep Islami* (Bandung: PT Refika Aditama, 2014), p. 72.

<sup>13</sup>Salamadian, "Pengertian Teknologi : Sejarah, Perkembangan, Manfaat & Contoh Teknologi Terbaru" *Official Website of Salamadian*. <https://salamadian.com/perkembangan-pengertian-teknologi/> (7<sup>th</sup> April 2020).

<sup>14</sup>Robert Burnett, Anna Brunstrom, and Anders G. Nilsson, *Perspectives on Multimedia: Communication, Media and Information Technology* (England: John Wiley & Sons Ltd, 2003), p. 1.

lifestyles in various fields are very significant so that the quality of life is much influenced by its presence.

One impact of the emergence of various types of technology is the advent of the internet. The internet is short for Interconnected Network or computer networks that are connected to each other throughout the world. The history of the internet began in 1969 when the US Department of Defense, U.S. The Defense Advanced Research Projects Agency (DARPA) decided to conduct research on how to connect a number of computers to form an organic network. This research program is known as ARPANET.<sup>15</sup>

Universal access to multimedia information is now the principal motivation behind the design of next-generation computer and communications networks. Furthermore, products are being developed to extend the capabilities in all existing network connections to support multimedia traffic. This is a profound paradigm shift from the original analog-voice telephony network developed by the Bell System and from the packet-switched, data-only origins of the Internet.

The rapid evolution of these networks has come about because of new technological advances, heightened public expectations, and lucrative entrepreneurial opportunities.<sup>16</sup> So that innovations continue to develop with a variety of models and brands throughout the world such as smartphones which in the end are able to invite online-based companies to participate in making new discoveries in the field of network and internet applications.

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<sup>15</sup>Julianto Arief Setiadi, *et al.*, *Buku Pelajaran Teknologi Informasi dan Komunikasi Untuk SMP / MTs Kelas VII* (Jakarta: Kementerian Negara Riset dan Teknologi, 2009), p.18.

<sup>16</sup>Jerry D Gibson, *Multimedia Communication: Direction and Innovation* (San Diego: Academic Press, 2001), p. 1.

### 2.1.7 Whatsapp

WhatsApp Messenger is part of social media. Social media is an internet-based application that allows each user to share various kinds of content in accordance with supporting features.<sup>17</sup> WhatsApp Messenger is a popular technology that has the potential to be used as a learning tool this has happened in various formal education institutions at almost all levels, although in its application it has not been able to be distributed as a whole in Indonesia.

WhatsApp is a fast, simple and reliable way to talk to anyone in the world. More than 1.5 billion people in over 180 countries use WhatsApp to stay in touch with friends and family, anytime and anywhere. WhatsApp is not only free but also available on multiple mobile devices and in low connectivity areas - making it accessible and reliable wherever you are. It's a simple and secure way to share your favorite moments, send important information or catch up with a friend. WhatsApp helps people connect and share no matter where they are in the world.<sup>18</sup> So that physical distance is not a reason to cut off social relations in everyday life too.

The existence of WhatsApp Messenger is inseparable from the existence of Net Gen or digital generation who always want to update various internet-based technologies. The latest empirical data from Jafe and Zane shows that Net Gen has a collaborative learning tendency, does not have a good response to the way learning lectures, wants information that they can receive individually, and always want a

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<sup>17</sup>Ennoch Sindang, *Manfaat Media Sosial dalam Ranah Pendidikan dan Pelatihan*. (Jakarta: Pusdiklat KNPk, 2013), p. 1.

<sup>18</sup>WhatsApp, "Penghargaan Riset WhatsApp untuk Ilmu Sosial dan Misinformasi," *WhatsApp Official Site*. <https://www.whatsapp.com/research/awards/> (6<sup>th</sup> April 2020)

variety of learning materials that can be accessed easily through technology tools.<sup>19</sup> WhatsApp was present to be the best solution of the need for connectivity with a variety of features that support the course of a sophisticated and creative learning.

WhatsApp have some features as follows:

1. Simple, Reliable Messaging: Message your friends and family for free. WhatsApp uses your phone's Internet connection to send messages so you can avoid SMS fees. Chat features that are not difficult to use and are easily discussed with acceptable money that has been and has been read by the recipient of the message or not.
2. Groups to keep in touch: Keep in touch with the groups of people that matter the most, like your family or coworkers. With group chats, you can share messages, photos, and videos with up to 256 people at once. You can also name your group, mute or customize notifications, and more. Thus, there is extensive interaction that does not only occur privately so that it can send messages and files that can be accessed by each group member without having to waste time in conveying information and discussing privately in terms of social interests.
3. Keep the Conversation Going: With WhatsApp on the web and desktop, you can seamlessly sync all of your chats to your computer so that you can chat on whatever device is most convenient for you. Download the desktop app or visit [web.whatsapp.com](http://web.whatsapp.com) to get started. This makes it easy to access the data you want to share but it is stored on your computer without having to transfer it to your smartphone.

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<sup>19</sup>Feiertag Jeff and Zane L. Berge "Training Generation N: how educators should approach the Net Generation", (Emerald Group Publishing Limited 50, no.6, 2008), p. 457-464.

4. **Speak Freely:** With voice calls, you can talk to your friends and family for free, even if they're in another country. And with free video calls, you can have face-to-face conversations for when voice or text just isn't enough. WhatsApp voice and video calls use your phone's Internet connection, instead of your cell plan's voice minutes, so you don't have to worry about expensive calling charges.
5. **Security by Default:** Some of your most personal moments are shared on WhatsApp, which is why we built end-to-end encryption into the latest versions of our app. When end-to-end encrypted, your messages and calls are secured so only you and the person you're communicating with can read or listen to them, and nobody in between, not even WhatsApp. This prevents information from being broken into and hacked into your WhatsApp account so that your personal secrets can be safe even the government and other third parties cannot access your conversations illegally.
6. **Share Moments that Matter:** Send photos and videos on WhatsApp instantly. You can even capture the moments that matter to you most with a built-in camera. With WhatsApp, photos and videos send quickly even if you're on a slow connection. This prevents you from losing valuable momentum wherever you are and you can immediately capture and be able to show to your fellow WhatsApp users without having to go through the complicated way to bring a camera or laptop to do it.
7. **Document Sharing Made Easy:** Send PDFs, documents, spreadsheets, slideshows and more, without the hassle of email or file sharing apps. You can send documents up to 100 MB, so it's easy to get what you need over to who you want. For administrative workers, students or other jobs that require files to be

read or shared as quickly as possible, this feature is a very useful and valuable value without thinking of meeting and carrying hardcopy everywhere.

8. Say What's On Your Mind: Sometimes, your voice says it all. With just one tap you can record a Voice Message, perfect for a quick hello or a longer story. This feature provides a very useful advantage if WhatsApp users have difficulty describing something in writing and if you feel bored to type without having to linger in exchanging information.<sup>20</sup>

## 2.2 Previous Related Research Finding

There have been several studies that provide an overview of the perception of an object, the benefits of using WhatsApp for various fields and also include research on how English language education is influenced by media, especially internet-based ones like WhatsApp. Researcher had collected several studies relating to the students' perceptions in learning English by using WhatsApp Media as follows:

Nurhaeni in her thesis had concluded that the students admitted that the use of smartphones in learning English has an influence to shape their learning strategies activities. They have acknowledged some English related applications and utilized them for learning English. Among the three strategies investigated in this research, cognitive and social/affective strategies indicated to be influenced the most by the use of smartphone in learning English. The students perceive smartphone as a beneficial tool for learning because it is fast, easy, and fruitful in helping them learn English. Mostly the difficulties faced by the students during the smartphone use in learning

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<sup>20</sup>Whatsapp, "Fitur," *WhatsApp Official Site*. <https://www.whatsapp.com/features/> (6<sup>th</sup> April 2020)



English related to technical factors and their own internal initiative.<sup>21</sup>The similarity of this research with the research to be conducted in the use of smartphones in learning English but there is a difference that is the focus of the research that I did was to use the WhatsApp application as a support for learning.

The results of the study by Hendrik Pratama and Andista Candra Yusro entitle the implementation of WhatsApp as mobile learning can improve student learning outcomes on the subject of the introduction of electronic components. In cycle I, meeting I reached 45% learning achievement and increased at meeting II to 60%. In cycle II, learning achievement also increased at meeting III to 75% and meeting IV by 82%. In this case the achievement of increasing student learning outcomes exceeds the performance indicator that is 80% so that learning is said to be successful.<sup>22</sup>The relation of this research to what I did was the use of WhatsApp media in the learning process, but the differences were those the research I did only found out about the perceptions of students rather than to improve learning outcomes, in addition, I also have a different focus of using WhatsApp on the eyes English lessons.

Research by Khusaini, Agus Suyudi, Winarto dan Sugiyantoon optimizing the use of WhatsApp shows several positive roles in the Physical Education Assessment lectures. The use of WhatsApp in lectures can help students discuss with each other or with lecturers who are effective in lecturing. Opportunities for learning and accessing lecture material can run more effectively and can be done anytime and

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<sup>21</sup>Nurhaeni, "The Use Of Smartphone and Students' Learning Strategies In Learning English," Unpublished thesis: English Education Program School of Postgraduate Studies Indonesia University Of Education:,Bandung, 2016), p. 94.

<sup>22</sup>Hendrik Pratama and Andista Candra Yusro, "Implementasi WhatsApp Mobile Learning Untuk Meningkatkan Hasil Belajar Mahasiswa Pokok Bahasan Pengenalan Komponen Elektronik,"(*JPFK* 2, no. 2, September 2016), p. 68.



anywhere. The use of WhatsApp can also be done to do peer assessment. Students can make assessments directly and can see input in an instant manner without having to wait a long time.<sup>23</sup>The similarity of our research is about the use of WhatsApp in learning. The difference between the research, first, I find out perceptions about the use of WhatsApp in English language learning and not the use of WhatsApp on problem-based learning in accounting courses and the second was the sample of my research was students in secondary schools instead of students in university level.

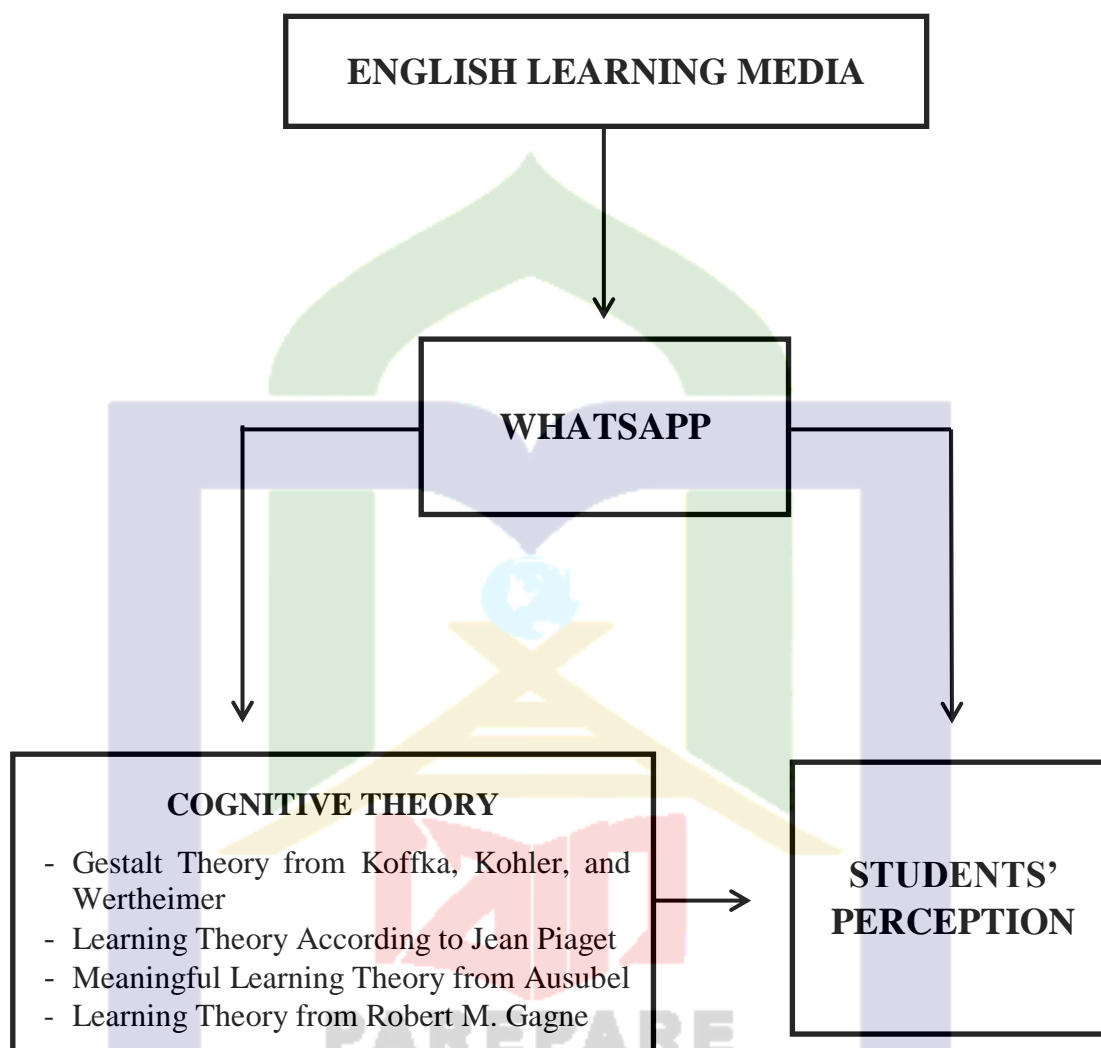
Based on the results of the study by Supri Wahyudi Utomo and Moh. Ubaidillah can be concluded that the application of problem-based learning models with the use of the Whatsapp application has an effect or a positive impact on student learning outcomes. Learning outcomes obtained by students as a whole (32 students) are grades 77 to 97 above the achievement criteria set in value 71. Students are easier to communicate, coordinate, and discuss before making a presentation without having to meet in person.<sup>24</sup>This research has a connection with the research that was conducted by researcher in terms of using WhatsApp in learning. What the researchers did in this study was not only to find the effectiveness of the application of WhatsApp but the researcher found out students' perceptions about the use of WhatsApp media.

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<sup>23</sup>Khusaini, *et al.*, "Optimalisasi Penggunaan WhatsApp dalam Perkuliahan Penilaian Pendidikan Fisika," (*JRKPF UAD* 4, no.1, April 2017), p. 6.

<sup>24</sup>Supri Wahyudi Utomo And Moh. Ubaidillah, "Pemanfaatan aplikasi WhatsApp Pada Pembelajaran Berbasis Masalah Untuk Mata Kuliah Akuntansi Internasional Di Universitas PGRI Madiun," (*K- JTP* 06, no.02, Desember 2018), p. 209-2010.

### 2.3 Conceptual Framework



The conceptual framework above describes the research which was conducted by the researcher. This research is descriptive research that describes the English learning Media affect the students' perception.

The conceptual framework shows that the English learning media in this research used WhatsApp as the tools of learning English whether or not it is an effective instant messaging application to support the students' learning activity.

Related to this research it is supported by the cognitive theory which had stated by some of the figures that had a relevant theory which described there were some connections between the learning English method which used WhatsApp with the students' ability on their own cognitive and effect to their perceptions.

#### **2.4 Operational of Definition Variable**

This research has two variables namely independent and dependent variables. Which independent variable is learning English by using WhatsApp media and the dependent variable is the students' perception at the tenth grade of MAN 2 Polewali Mandar. The dependent variable in this research was influenced independent variable.

1. Students' Perception is a students' view or opinion on everything that can be observed through sensory experience obtained which is then analyzed carefully to get a view of an object.
2. Learning English is a learning process that involves English, in this, case more specifically to the use of WhatsApp media
3. Media is a tool or intermediary to get a better outcome.
4. WhatsApp is an application that can be accessed via a smartphone with various advanced features such as sending text, voice, document, picture and various other advantages and utilizing internet access as a prerequisite for its use

